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Xerox® FreeFlow® VI Design Pro Software

User Guide

xerox™

Produced in the United States of America.

BR38586

Contents

FreeFlow VI Design Pro Installation

This chapter contains:

This section provides the information needed to install VI Design Pro software on the workstation. You can find details about licensing and installation in these sections:

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File backup

When you upgrade or uninstall this software, ensure that you back up any customized files that can be required later.

Virtual machine support

You can install VI Design Pro on a Virtual machine with a unique MAC address. However, no support is provided for the VM environment.

Updates are released as full installers

You can install any FreeFlow VI Suite 18.0.0 update over any previous release of the FreeFlow VI Suite. Installation of VI Suite components requires Administrator privileges.

Note: In the 18.0.0 release, the VI Design Pro Installer program is changed. Before you install VI Design Pro version 18.0.0 or later, it is necessary to uninstall any version earlier than 18.0.0 manually.

Stop active products before the installation of updates

Before the installation of any updates, stop active products, such as FreeFlow VI eCompose or VI eCompose services.

Getting Started

Before you begin, first download the software from the Xerox website. Download instructions are provided here. After you have downloaded the appropriate files you can proceed to the installation instructions that follow.

PROGRAM DOWNLOAD

To download the VI Design Pro, go to www.xerox.com/support, then select **Software and Platforms**. Select **FreeFlow > FreeFlow Variable Information Suite**, then select then select **Software and Solutions**. If necessary, to display the correct installer file, select the operating system appropriate for your target platform, then download the VI Design Pro installer file.

Program Delivery Format

Programs are delivered in .exe format. These files can be downloaded directly to the target device. When the device does not have internet access, copy the .exe file on the target device.

Downloads

Some Variable Information programs, Specialty Imaging fonts, and Barcode fonts are available to customers in the United States that want to purchase those programs or fonts using a credit card.

SPECIALTY IMAGING AND BARCODE FONT DOWNLOAD

To download the Specialty Imaging and Barcode fonts, go to www.xerox.com/support, then select **Software and Platforms**. Select **FreeFlow > FreeFlow Variable Information Suite**, then select **Software and Solutions**.

Note: When downloading fonts, you will be directed to review an End User License Agreement. In order to download the fonts you must review and accept the End User License Agreement. If you do not accept the End User License Agreement you will exit from the font download page.

System Requirements

VI Design Pro (VDP) is an interactive design environment for VIPP® application programmers. It provides an interactive user interface that provides a text-based code entry component, with smart editors with a WYSIWYG view of the variable application as it is being designed. As code is entered or an element on the screen is moved, updates are made, and when the screen is refreshed, the updated application is rendered on the screen. VI Design Pro utilizes the same VI Compose interpreter that the printer uses to render the VIPP® application on the screen, ensuring what you see on screen will match what you print at the target print device. For this reason it is highly recommended that when upgrading a component of the VI Suite of products, you upgrade all your components to the same version and patch or service pack level. VI Design Pro provides other features such as random access to pages in the job (browsing) and zoom adjustments, as well as smart editor, find and replace capabilities and other aids to assist in VIPP® application design.

VI Design Pro can be installed on a Windows 64-bit system and supports virtualization. If using virtualization, each node must have its own unique MAC address to license the product.

The minimum software and hardware requirements are:

- Windows® 10, Windows® 11, Windows Server® 2016, Windows Server® 2019, and Windows Server® 2022 64-bit platform only
- 4GB RAM
- 20GB Hard drive
- Internet access (to activate the license)

Note: The GUI display is rendered using an internal PS engine, as such it cannot render correctly PDF files with transparency. PDF files will be converted internally to EPS for purposes of display in the GUI. Although the GUI is not able to render transparency correctly, if printing to an FFPS APPE engine, transparency will be honored at the device.

The following minimum screen resolution and color settings are recommended when editing any of the available DRAW commands on the Windows PC:

- Set the desktop area to at least a screen resolution of 1024 x 768. The higher resolution is preferred.
- Set the color palette to 256 colors or better
- Set the font size to Small Fonts or Large Fonts

Caution: Lower resolutions can cause unexpected results.

Lines or characters of less than 1 point

When using lines or characters of less than 1 pt, you may need to use the zoom options in VI Design Pro to see the actual lines or characters displayed on the screen.

Not all objects can be selected in the GUI windows

Some hot spots are not available and cannot be selected.

Proof Print

VI Design Pro can use any PostScript print device available in the Windows Printer panel to proof print pages from the application. Without a license for that printer, you will be limited to under ten pages. If a license is available for that device then there is no limitation. To license such a device, contact your local Xerox sales representative.

The version of VIPP® resident on the printer MUST be of the same version or higher than the version of VI Compose shipped with VI Design Pro. To determine the version of VI Compose shipped with VI Design Pro, choose **Help > About FreeFlow VI Design Pro** from VI Design Pro's main window pulldown menu.

Proof Print uses the VIPP® rendering engine to create the proof pages.

The page range selection in Proof Print refers to logical pages, while the graphic display shows the current and total physical pages of the application. This means that for multi-up applications the Proof Print page range selection values may not correspond one to one with the actual number or position of logical pages. You should select the range of pages to be proof printed based on the desired logical page numbers, not the physical page numbers.

Note: Design Pro supports printing to PDF. For more information, refer to File Menu.

Upgrade Information

If you have an earlier installation of VI Design Pro formerly known as VI Designer or IDE, and you have customized the installation files, for example, the `xgfdos.run` and `xgf.def` files, and so on, print or copy these files so that you can identify and reapply the customizations after the upgrade.

VI Design Pro Installation

Refer to Program download for download instructions. VI Design Pro software is downloaded in a zip file. Service packs, when available, are zip files that can be downloaded from the same location. Install these service packs over the base software.

Installation of the software requires administrator privileges. To install the software, extract the zip file. Double-click the `XeroxFreeFlowVIDesignPro-18.n.n.exe` file. Install the software on the local device. Follow the onscreen prompts.

The software is installed to default path `C:\Program Files (x86)\Xerox\VIPP\vide`. As required, the user can change default installation path. This folder contains program files, help files, Wizard libraries and sample forms and images. A FreeFlow VI Design Pro entry is added to the Windows Start menu. Before you install FreeFlow VI Design Pro version 18.0.0 or later, it is necessary to uninstall any version earlier than 18.0.0 manually. When you update the install version 18.0.0 or later, the installer prompts you to uninstall the existing version before you proceed with the installation.

Licensing Requirements

VI Design Pro software will install with a 60-day trial period (if it has not previously been installed on this device). To use the product after the 60 day trial period you must convert the trial to a fully licensed version of the product. To do this you need to purchase a production license. Without a valid license the software will not be usable.

The process to license VI Design Pro will depend on where and how VI Design Pro software was purchased. This is due to unique licensing requirements based on a geographical region. This information will be included in the kit you receive/download when you purchase VI Design Pro.

Do not attempt to change the system clock to circumvent the license

VDP will detect such a change and will fail to operate if this is attempted.

Manually loading a license

If you use the manual Load License option, you are provided with a license file. License files (*.dat) for all VI products are generated via an automatic process. The process saves the file as HardwareAddress.dat , where HardwareAddress is the address of the computer on which the product will be licensed. Therefore, it is possible to receive more than one product license file with identical file names. It is your responsibility to ensure that you do not overwrite existing licenses when saving a new product license. When license files used on a single computer are due to expire at the same time, it is possible to request one file that will activate all the VI products on that computer.

When you install an upgrade to an existing version of VDP with a valid license, the software will find and activate the previously installed license. No further action is required until such time as the license expires.

To manually load or activate your VDP license, select **Help > Install/Update Software License** from the menu bar. (You can also use this option to view how many days remain in the trial or the status of the license.)

Selecting the **Install/Update Software License** option will produce the FreeFlow VI Design Pro License panel. This panel provides access to information about the installed license and two unique licensing options. Use the panel to choose the option suited to your location.

License Information

This panel includes:

LICENSE TYPE	DESCRIPTION
Days Remaining	The number of days until the existing license will expire.
License Host ID	VDP finds and displays this information from your computer. If a valid license file has been loaded, the Host ID used by the license is shown.
Product Version	The installed version of the VDP software.

If you have obtained a license file...

Use this option when you have received a license file (*.dat) (usually via email). When you receive the file, store it in a safe and accessible place on your computer.
For further instructions, refer to Using the Load License option.

If you have an activation key...

The information in this panel is designed for users who have received a software activation key as part of the

software license kit for the VDP software.
If you do not have the license kit, and are in a location that requires this option, contact your Xerox sales representative to purchase the software license kit for VI Design Pro software. After the order is processed, a ship kit that contains the Software Activation Key and Serial Number, If provided, is shipped to the customer location.
For further instruction, refer to Using the Activation Key option.

USING THE LOAD LICENSE OPTION

To activate the VI Design Pro license using a license file:

1. Select the **Load License** option.
2. Browse to the location of the license file, select it, then click **OK**.

   The license is installed. The new license information appears at the top of the license panel.
3. Select **OK** to activate the license.

USING THE ACTIVATION KEY OPTION

Note: Retain the Software Activation Key and Serial Number, if provided, in a safe location as they may be required for future upgrades, support, and so on.

If you have the Software Activation key, you can use the automated license process outlined here:

1. Choose one of the available System Host IDs for the license HostID. (The default is recommended.)

   Note: If the automated license process fails you will need to have the System Host ID string and the Software Activation Key available when you contact the Xerox hotline for assistance.
2. Enter the **Serial Number** of the device on which the software is installed.
3. Enter the **Software Activation Key** in the area provided and click the **Activate...** button.
4. The Xerox License Server may return a form requesting additional information. Fill in the form as requested and select **OK** when done.
5. This information and the Software Activation Key will be submitted to the Xerox License Server.
6. At this point the Xerox License Server should have all the information required to validate the license request. If additional information is required, a new screen requesting additional information will be displayed. Fill in the required information and select **OK**.
7. The Xerox License Server will validate the information and either enable the license or return an error code if the information supplied does not match our records. If an error code is generated, report the error code to your local Xerox representative so they can assist you further.

If the information entered is valid, a license file will be generated and loaded to you r system. Details of the license will be displayed in the License Information area of the License screen. To apply the license, click the **OK** button. When the OK button is selected, the license will be applied.

On occasion, the automated license activation may fail. When this happens, contact the Xerox hotline for assistance. Have the System Host ID of the workstation and the Software Activation Kit supplied in the ship kit available. Further assistance may result in a license file being emailed to you.

Note: If you fail to connect to the license server using the method shown above, you can go to any Internet connected device and login to the portal using this URL: https://www.xeroxlicensing.xerox.com/activation.

Enter the Activation Key and follow the on screen prompts. You will need to know the System Host ID of the VDP system. A License file will be emailed to you. Move the license to a safe location on the VDP system and use the Load License option to install the license.

Uninstalling VI Design Pro

Remove VI Design Pro by running the uninstall program. The uninstall program presents a series of windows that allow complete removal of VI Design Pro or to remove selected files and items.

Note: Selecting Cancel stops the uninstall program without completing the procedure. Run the uninstall program to fully uninstall VI Design Pro.

Caution: When you have an earlier version of VI Design Pro installed on the system you must use the uninstall program provided with that version of the software to remove those files.

To run the uninstall program:

1. Log in to the Windows workstation as administrator or with a user account with administrator privileges.
2. Launch VI Design Pro's uninstall program by using one of these methods:
   - Select **Start > All Programs > Xerox FreeFlow VI Design Pro**, then right-click **Uninstall**.
   - Use the **Add or Remove Programs** option on the Control Panel.
   - Select **Start > Run** to access the Run window. If necessary, to verify the correct path to uninstall .exe file, for example, `C:\Program Files (x86)\Xerox\VIPP\vide\UninstallerDat\UninstallXeroxFreeFlowVIDesignPro.exe`, select **Browse**. Browse to the .exe file, then click **OK**.
   - Using Windows Explorer, access the vide directory on the workstation, or the alternate location. Locate and double-click **Uninstall Xerox FreeFlow VI Design Pro.exe**.
3. When the Uninstall VI Design Pro window appears, select the type of uninstall to perform, then follow the on-screen instructions to complete the uninstall process.
4. Reboot the workstation when the software has removed the selected VI Design Pro files, directories, and software from the system and restored the selected .ini files.

Adding PostScript Fonts

Order additional PostScript Type I and Type III fonts from the Xerox Font Library. These fonts can be used on the printer and with VI Design Pro.

The fonts must be in a PostScript format that is supported by the target printer. In general, Type 1 and 3 PostScript fonts are supported on all PostScript printers.

Note: When VI Design Pro is not installed on the C:\Program Files (x86)\Xerox\VIPP\ folder, replace C:\Program Files (x86)\Xerox\VIPP\ in the following description with the folder on which VI Design Pro is installed.

To import PFA and PFB type fonts into the VI Design Pro fonts directory, select the **File** menu on the top menu bar and one of these options:

- Import Roman PostScript Fonts
- Import Special PostScript Fonts

Use **Import Roman PostScript Fonts** for fonts using the Standard Roman (or Latin) Character Set as defined in Adobe's PostScript Language Reference Manual. This is the option generally used for Latin Type 1 fonts delivered by font vendors.

Note: Use the **Import Roman PostScript Fonts** option to install Specialty Imaging fonts.

These fonts are suitable for re-encoding by VIPP®, using the default re-encoding table, and can be referenced in the `xgf\encoding\fontlist` file.

Use **Import Special PostScript Fonts** for fonts using any other character set (typically barcode fonts or fonts converted from other legacy formats).

These fonts must not be re-encoded and must be referenced in the xgf\encoding\nullfl file.

Using either option, one or more fonts can be selected. The fonts are converted into regular PostScript fonts and placed in the `C:\Program Files (x86)\Xerox\VIPP\vide\fonts` directory. Also, as part of the font conversion process, the file `C:\Program Files (x86)\Xerox\VIPP\vide\xgf\encoding\fontlist` (for roman fonts) or `C:\Program Files (x86)\Xerox\VIPP\vide\xgf\encoding\nullfl` (for special fonts) is updated with the newly imported font names. By default, the VIPP® font names are of the incremental form /RFAAxxxx (in fontlist) or /SFAAxxxx (in nullfl), where xxxx is a number ranging from 0000–999999. The resulting fontlist or nullfl file can be edited to change these names or add font family information. For details, refer to Customization.

Within VI Design Pro, the font key names cannot be more than 10 characters long, not counting the backslash, for example,. /RFAA123456, due to current constraints in the GUI menu display width format. However, this limit is sufficient for most purposes, because VIPP® font key names are meant to be short names used as shortcuts for the long font names.

Important: These fonts are often subject to licensing agreements and must be used in accordance with the terms of the agreement. You are responsible for checking the licensing agreement for any fonts and complying with the terms before installation for use with VI Design Pro.

After you complete these tasks you are requested to restart VI Design Pro. The new fonts appear in the font pull down menus and you can access them in the VIPP® code using the VIPP® short name.

CUSTOMIZATION

The files `C:\Program Files (x86)\Xerox\VIPP\vide\xgf\encoding\fontlist` or `C:\Program Files (x86)\Xerox\VIPP\vide\xgf\encoding\nullfl` can be edited to change the VIPP® font names or to add font family information.

The syntax for each entry in these lists is:

`/VIPP_Shortname /PSFontname /substitute_fontname SUBSTFONT`

Where:

`/VIPP_Shortname`	is a unique user-defined identifier for this font (max 10 characters long).
`/PSFontname`	is the name of the PostScript font as it appears inside the file under the /FontName key.
`/substitute_fontname SUBSTFONT`	(optional) is any font name that will be substituted when the font referenced by /PSFontname is not available.

This example shows part of the `C:\Program Files (x86)\Xerox\VIPP\vide\xgf\encoding\fontlist` file.

```
/STARTFF
/NGML  /Garamond-Light        /Times-Roman SUBSTFONT
/NGMB  /Garamond-Bold         /Times-Bold SUBSTFONT
/NGMLI /Garamond-LightItalic  /Times-Italic SUBSTFONT
/NGMBI /Garamond-BoldItalic   /Times-BoldItalic SUBSTFONT
/ENDFF
   % additional fonts to be purchased separately (examples)
/NPN   /MB043                 /Courier SUBSTFONT
/NPNA  /ArialMonospacedMT-Oblique   /Courier SUBSTFONT
.
.
```

The /STARTFF and /ENDFF markers are optional and can be used to delimit a font family. Refer to the *VIPP® Language Reference Manual* for more details.

KERNING

Kerning information for a PostScript font is available in an Adobe Font Metrics (AFM) file. AFM files are generally supplied with the font kit when the font is purchased. Specifications for the AFM file can be obtained from Adobe, Inc.

Kerning can be enabled for VIPP® SHx commands using:

- Extended syntax on the entry in the font lists
- SETKERN and INDEXKERN commands

Use this syntax in fontlist to establish the link between a given font and an AFM file:

`/VIPP_Shortname [ /PSFontname (AFM_filename) ]`

Where:

`AFM_filename`	This is the name of the AFM file containing kerning information for the associated font.

The AFM file must be located in one of the libraries referenced by SETMPATH or SETEPATH (or SETPPATH in project mode).

Kerning is disabled by default.

Program Overview

This chapter contains:

VI Design Pro is a Graphical User Interface (GUI) program, designed to simplify the creation of VIPP® applications. VI Design Pro can be used to create new VIPP® applications, or to view or modify existing VIPP® applications. VI Design Pro is the only GUI-based product that can use all the capabilities provided by FreeFlow Variable Information Suite (VIS) applications to process data-driven graphics, data-driven conditional processing, transactional printing, and database publishing.

VI Design Pro can save your application in legacy or VI Project Container format for fast printing to your VIPP®-enabled print device or to the VI eCompose system, which converts VIPP® to PDF, using the power of Dynamic Document Construction. Additionally, you can output your application as a PDF, using the File menu option Export Job as PDF. For large print volumes of records, this option can take longer. This option cannot use the full power of Dynamic Document Construction available when printing the legacy or VI Project Container formats to a VIPP®-enabled printer. Additionally, the size of the PDF file can be very large, based on the options used to create the PDF file.

Note: The GUI display is rendered using an internal PS engine, and therefore cannot render correctly PDF files with transparency. PDF files are converted internally to EPS for display purposes in the GUI. Although the GUI cannot render transparency correctly, if you print to an FFPS APPE engine, transparency is honored at the device.

In addition to the GUI, VI Design Pro provides the following:

- Application templates
- Smart Editor features to simplify the creation or modification of VIPP® applications
- Full support of the VIPP® command set
- What You See is What You Get (WYSIWYG) representation of the VIPP® application.

The GUI and WYSIWYG provide an interactive environment in which to create the VIPP® applications, and represent how the application prints on the device.

License required

To use VI Design Pro, a license is required. For more information, refer to FreeFlow VI Design Pro Installation. Without the license, the program runs in Demonstration mode for a 60-day period, after which VI Design Pro exists when it is invoked.

Unsupported software

Operation of the VDP software on a computer with VMWare as the base operating system, and the use of Remote Desktop or other sharing software, is not tested, and is not supported.

Watermarks

When the program runs in Demonstration mode, the following watermark is produced on every page of the VIPP® job:
Unlicensed FreeFlow VI Design Pro. Please contact a Xerox Sales representative for more details.

VI Suite Customer Forum

Xerox hosts a Community Support Forum. The VI Suite Customer forum is now part of the larger support forum, allowing you to post and review information about Xerox products and services all from one location. Take a minute to log in to this customer forum community: http://VIPPsupport.xerox.com.

Using VI Design Pro

To use VI Design Pro you must be familiar with the VIPP® programming language and how VIPP® applications are created. If you are not familiar with VIPP®, there are other third-party GUI design tools that can be used by non-programmers, which provide VIPP® design capabilities using a drag-and-drop interface.

For a review of the basic information about the VIPP® program, refer to the following sections of the FreeFlow Variable Information Suite documentation:

- VIPP® and VI Compose Overview: This chapter in the *FreeFlow VI Compose User Guide* provides some of the background information needed to understand what is involved in VIPP® applications. The chapter contains information about the following subjects:
  - VIPP® and PostScript
  - VIPP®-enabled devices
  - Repositories
  - VI Projects
  - VIPP® core functionality
- VIPP® Data Streams: This chapter in the *FreeFlow VI Compose User Guide* describes the various modes in which VIPP® applications are used: Native mode, Line mode, Database mode, and XML mode. Other information in this chapter includes:
  - Linking the data with the JDT, DBM, or XJT
  - Record structures
  - Record structures and the mode and presentation relationship
  - Functions
  - Conditional processing
  - Dynamic boxes
  - Data-Driven Graphics (DDG)
- VIPP® Resources: This chapter in the *FreeFlow VI Compose User Guide* describes the files stored in the VIPP® libraries that are used for accessing and processing VIPP® jobs. The chapter includes information about the different types of resources, the different ways in which VIPP® can access those resources, and the mechanism and syntax used to embed resources in the data stream. VIPP®-supported resource types include:
  - VI Project
  - VI Compose and setup files
  - Fonts
  - Forms
  - Segments
  - Images
  - Job Descriptor Tickets
  - XML Job Tickets
  - Data Base Masters

  - Distribution lists
  - Text files
- VIPP® Commands: This chapter in the *VIPP® Language Reference Manual* provides detailed information about each of the VIPP® commands. VIPP® commands are included as a separate part of VI Design Pro Help.

Using Fonts

To read a discussion of how to install PostScript fonts and customize fontlist or nullfl, refer to Adding PostScript fonts. You can edit the files to change the VIPP® font names or to add font family information.

USING MULTIPLE-BYTE FONTS

The VIPP® and VI Design Pro software support the use of multiple-byte fonts, including fonts designed for vertical printing. The term multiple-byte or multi-byte font is used to describe fonts that require more characters than can be specified in an 8-bit byte. VIPP® specifications include Chinese, Japanese, and Korean (CJK) fonts. For more information about how the SHx commands have been modified for use with these fonts, refer to the *FreeFlow VI Compose User Guide* and *VIPP® Language Reference Manual*.

To meet the requirements for vertical printing with CJK fonts:

- The command syntax for SHP and SHMF has been extended with selectable options for behaviors related to Asian languages.
- Encoding and special character lists are defined in the `xgf/src/cjk.def` file.
- The commands SETCJKENCMAP, SETCJKRULES, SETV2HCONV, and SETV2HTABLE have been added to the VIPP® programming language.
- Commands such as FROMLINE, RPEKEY, GETFIELD, SETRCD, SETPCD, and GETINTV have been adapted to work on character boundaries instead of byte boundaries when a multi-byte font is selected.

Vertical Writing

When using vertical multiple-byte fonts with SHx commands, all horizontal behaviors become vertical behaviors:

- Left alignment becomes top alignment.
- Right alignment becomes bottom alignment.
- Horizontal centering becomes vertical centering.
- Horizontal justification becomes vertical justification.
- Column width becomes column height.
- Line spacing is applied horizontally instead of vertically.
- The secondary horizontal position becomes the secondary vertical position.
- Instead of increasing the vertical print position, the horizontal print position is decreased so that vertical text is forwarded from right to left.

Encoding Multiple-Byte Fonts

To change the encoding used by VI Design Pro software to interpret a resource, select **Edit > Choose Resource Encoding**, or press **Ctrl+E**. Select from the available encoding until the multiple-byte text in the dialog window appears correct.

Note: Invoking the Choose Encoding to Use for Resource Display does not change the encoding of the resource, only the encoding used for the display.

The dialog is available for use in case VI Design Pro software cannot guess the encoding, or guesses incorrectly. After the encoding is chosen with the dialog, a tag can be added to the top of the resource file, so that VI Design Pro can guess correctly next time.

When no tag is present, VI Design Pro looks at the fonts specified in the SETFONT and INDEXFONT commands and guesses the encoding from the font name.

The encoding options available on this dialog depend upon the settings on the workstation, usually Control Panel > Regional and Language Options. When no Japanese code page support has been set, the following options are available:

- Western Europe and Latin Languages, ISO-8859-1
- Unicode UTF-8

When the Japanese code page support has been set, the following options are available:

- Western Europe and Latin Languages, ISO-8859-1
- Unicode UTF-8
- Japanese, Shift-JIS
- Japanese, EUC-JP

Job Data and Performance

As a Windows application, VI Design Pro software incorporates both the VI Compose runtime and a PostScript Interpreter and RIP. In addition, VI Design Pro presents a GUI (Graphical User Interface) running on a Windows-based workstation, which places certain restrictions on the amount of job data that can be handled within VI Design Pro. When attempting to load production volumes of job data into VI Design Pro, unexpected results can occur.

VI Design Pro software is a design tool intended for use during application development. Use VI Design Pro with just enough line mode or database mode data to verify that the application looks the way you think it should look, and behaves the way you think it should behave, typically on a few pages to a maximum of a couple of dozen pages. The performance of VI Design Pro during both loading and browsing suffers in direct proportion to the amount of job data ingested.

Reconciliation and Graphic Element Restrictions

Immediately after invoking VI Compose and the PostScript Interpreter and RIP to render a given page of your VIPP® application, VI Design Pro software taps into VI Compose to get information about the graphic elements that were rendered to the graphic display. Only those graphic elements rendered through the use of VIPP® marking commands can be accessed for graphic manipulation by VI Design Pro. Graphic elements rendered through use of raw PostScript are not accessible. VI Design Pro software performs an analysis of the current state of the VIPP® source code in your application, and references the information against the graphic elements that VI Compose has rendered to the current page. If a particular rendered element on the graphic display can be matched with a corresponding fragment of VIPP® source code, it is said to have been reconciled with the source element.

Only reconciled graphic elements can be grabbed, dragged, right-clicked, and so on. To maintain the integrity of your VIPP® application, any action performed within the graphic display must eventually be realized through manipulation of the corresponding VIPP® source code fragment. If a graphic element cannot be selected with the mouse, then it has not been reconciled.

Because PostScript, and therefore VIPP® code can be arbitrarily complex, there are limits to how effective the analysis portion of the reconciliation activity can be performed. Current limitations in this area include, but are not restricted to, reconciliation of graphic elements rendered through the use of conditional execution, loops, or variable substitution. Use of these constructs in your VIPP® application source can confuse the reconciliation process, resulting in a failure to reconcile or a reconcile mismatch. Failure to reconcile or a reconcile mismatch is where a View Source for a particular element on the graphic display points to an incorrect location in the VIPP® source.

Crash Recovery

Upon restart after a crash, VI Design Pro software presents an option to re-instantiate resources from what was in the resource execution cache when the application terminated abruptly or crashed. The resource execution cache contains:

- Activities that are performed from the SmartEditor
- WYSIWYG manipulation of graphical elements on the right-side window
- Manual resource edits when the manual edits were sent to VI Compose through an F5 keypress or toolbar button execution of the resource

Edits that are executed by VI Compose and propagated to the right-side graphical display are saved in the resource execution cache. Upon restart of VI Design Pro after a crash, if the user chooses, recovery is attempted, based on the cache contents.

Note that this crash recovery mechanism does not overwrite automatically the original job resources. After the crash recovery operation completes, it is important to save any changes that were recovered, just as if you had made a change without an explicit save during a normal editing session. The usual system prompts to save the changes are presented.

VI Design Pro GUI

This chapter contains:

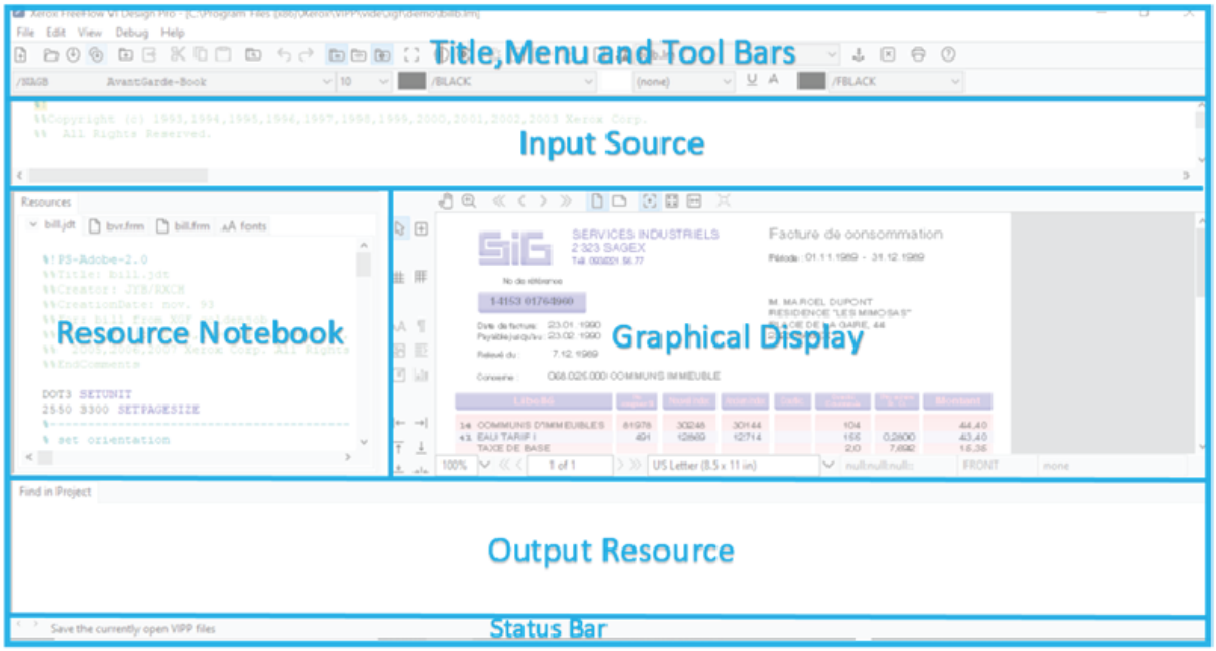
The VI Design Pro window provides GUI tools to create, view, and modify VIPP® applications. The VI Design Pro GUI contains information about how those functions relate to the VI Design Pro program.

Note: The GUI display is rendered using an internal PS engine, and therefore cannot render correctly PDF files with transparency. PDF files are converted internally to EPS for display purposes in the GUI. Although the GUI cannot render the transparency correctly, if you print to an FFPS APPE engine, transparency is honored at the device.

The VI Design Pro window consists of these basic components:

- Title, Menu and Tool Bars
  - Title bar
  - Activity indicator
  - Menu bar
  - First tool bar buttons and list boxes
  - Second tool bar buttons and list boxes
- Input Source section
- Resource Notebook section
- Graphical Display section
  - Graphic display tool bar buttons and list boxes
- Output Resource section

- Status bar

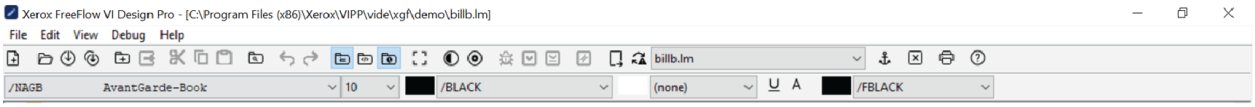


Other functions described are:

- Edit modes of operation
- Control and Function keys
- Using the Smart Editor
- Error handling

Title, Menu and Tool Bars

The upper most portion of the VDP application consists of components described in these sections:



- Title bar
- Activity indicator
- Menu bar
- Primary Tool bars

TITLE BAR

The title bar provides this information:

- Product name and version
- Folder name
- Project name
- File name, including path

When a project is open, the title bar provides both the folder and project name, for example, folder: xerox, project: goljob. When working on a single resource, the name of the resource is displayed, for example: [`C:\Program Files (x86)\Xerox\VIPP\xgfc\xerox\goljob\bill.frm`].

In addition to the product title, the title bar contains standard Windows buttons that are used to control the size of the VI Design Pro window on the desktop and to close the program.

ACTIVITY INDICATOR

The activity indicator helps you to determine whether VI Design Pro is still performing the requested operation. When lengthy VIPP® is processing such as a long file copy or search operation takes place, the gears on the activity indicator turn.

MENU BAR

When VI Design Pro window is accessed, the menu bar appears near the top of the window.

The drop-down menus available from the menu bar are:

- File menu
- Edit menu
- View menu
- Debug menu
- Help menu

File Menu

The File menu provides these functions:

New

This option allows you to create a new VIPP® application. When you first select this option, the Welcome to the VI Design Pro Wizard dialogs display. When the Wizard Classic is clicked, or when Always Use Wizard Classic was previously enabled on the Welcome to the VI Design Pro Wizard window, the New VIPP Application window displays.
For detailed information about how to display and use either of these windows, refer to Creating or modifying applications.

Open

This option allows you to open an existing VIPP® application.
When you access **File > Open**, the Please choose the file to load window opens, and the Look in field displays the name of the last directory from which you loaded a file. If this is the first time after installation that you are loading a file, the Look in field defaults to the VI Design Pro file folder that was loaded on the system when you installed the VI Design Pro.
For more information about how to use this window, refer to Creating or modifying applications.

Close

This option allows you to close an open VIPP® application. VI Design Pro automatically closes the open application when it is not closed before opening another application or template. You will be prompted when you do not save the changes to the application.

Save

This option allows you to save the changes made to the current page of the existing VIPP® application. For example, when you make changes to the JDT tab and select **File > Save**, only the changes you made to the JDT tab are saved. Use **File > Save All** to save all the changes made to the VIPP® application.

Save As

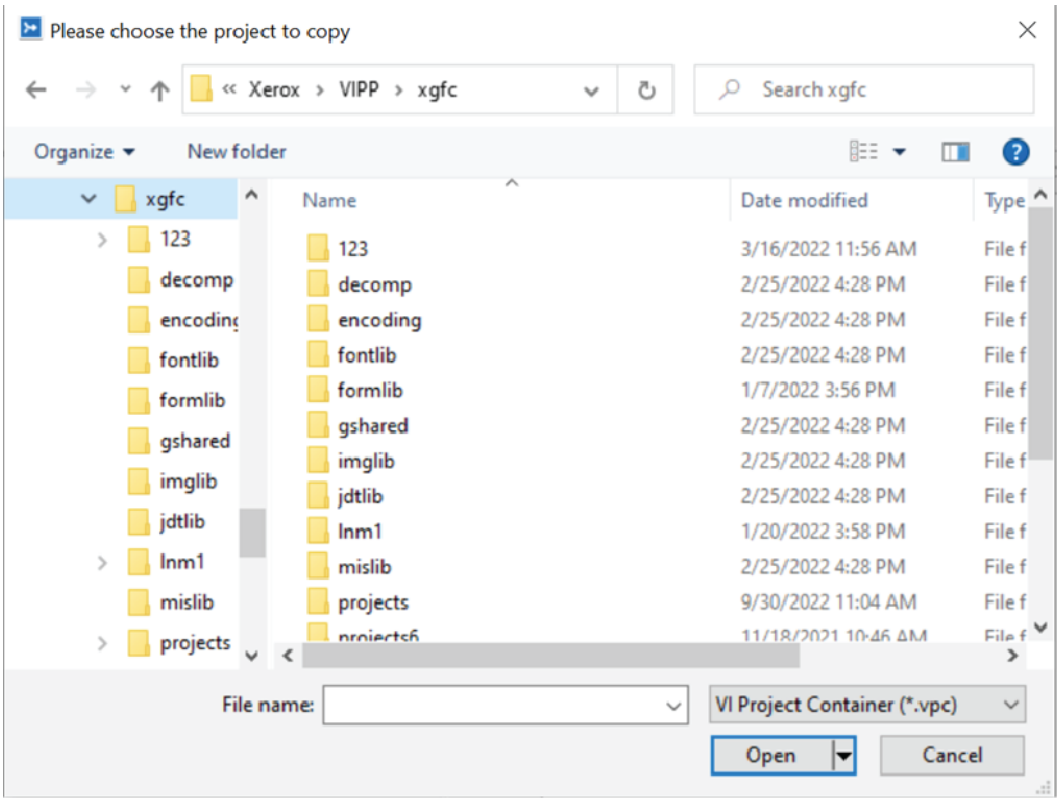
This option allows you to save the currently active file using a new name. When you select this option, the Save As window displays, and allow you to specify the directory and file name to use for the new file.
In general, use **File > Save As** in VI Design Pro to copy a portion of the current application to a different file name so that you can use it again with a different application. Using the Save As tool bar button has no effect on the files that are currently included in the current application.

Save All

This option allows you to save all of the changes that you made to the VIPP® application. Use **File > Save** to save changes to the current page of the application when you only made changes to the JDT tab.

Copy Project

This option allows you to copy a VI Project, and to use an existing VI Project as a template for a new project. When you select **File > Copy Project**, the Please choose the project to copy window displays, this window allows you to browse for and select the project you want to copy.

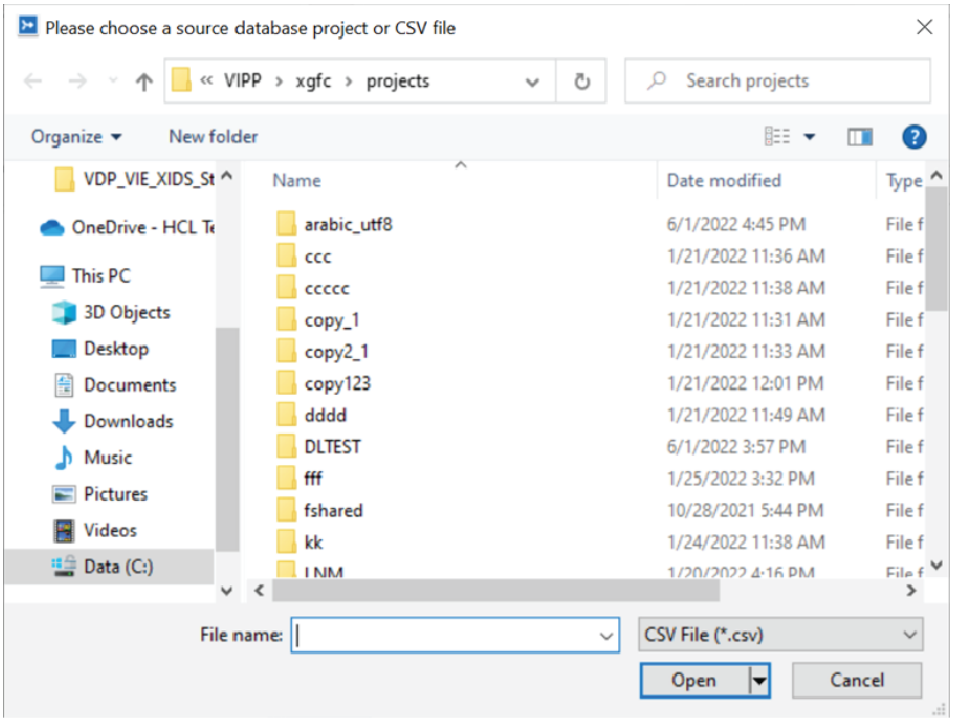


Once the project to copy is selected, you will be prompted to enter a new folder and new project name. If needed, enable the check box to include the original project's history in the new project.

Merge Database Projects

This option allows you to merge database projects. The option provides the means to merge database files with disparate header names and to rename the database fields or names in the DBM file.
When you select **File > Merge Database Projects**, the Merge Database Projects dialog displays. Use the dialog to browse for, and select the data you want to associate in a VIPP® database project, with the DBM file of another database project.

When you click on the Browse button next to the Source Database Project or CSV File window, the Please choose a source database project or CSV file screen is produced. Use the screen browse for and enter a data source. The data source can be either a VI Project (`.vpc` or `.vpf` file) or a CSV file.



After you select the source database project, use the **Browse** button next to Target Database Project to open a similar screen from which to browse for and choose the target database.

When both source and target projects have been selected click **OK** to continue.

When the data source is a CSV file, you will be prompted to specify the field delimiter of the CSV file. The first line of the CSV file must contain data field names. The data must begin on the second line.

After the database files and field delimiter have been defined the Map Database Fields dialog displays. Map the fields of the data source to the fields in the target project.

The Data File Fields column contains the fields found in the source submission file or CSV file. The DBM File Fields column contains the fields in the target project. When you select an entry from these columns, a sample data value will be displayed below the column as an aid in mapping the source and target fields.

To map fields with the same values, highlight the fields to map and click on the Map button.

When fields are incorrectly mapped, select the appropriate Mapped Fields entry and click on the **Unmap** button. The entry is removed from the Mapped Fields column and the appropriate fields are added to the Data File Fields and DBM File Fields columns.

When mapping is complete, click on the **OK** button. The following files will be modified:

- The target project submission file will contain the field names and data from the source project or CSV file. The SETDBSEP parameter will be modified as necessary.
- The target project DBM file will be modified such that all the original field references (e.g., FIELD1) will be replaced with the field names from the new target project submission file (e.g., Fname).

The source project files (or source CSV file) will not be modified.

When fields are not mapped, the Project Merge Information dialog will be displayed.

Click **OK** to confirm, the modified target project will be opened in VI Design Pro.

Create Project

This option allows you to save an existing VIPP® application as a VI Project.

Export Project Container

This option allows you to create a compressed archive file from the currently loaded VI Project. The compressed archive file can then be used for activities such as an email attachment, archiving, deployment, and so on.
When you select **File > Export Project Container**, the Please select export destination window displays, and allow you to specify the file name and destination for the archived file. Once you specify a directory and file name and select Save, VI Design Pro creates the compressed archive file. The compressed archive file will have a file extension of .vpc.
Import Roman PostScript Fonts

Import Special PostScript Fonts

These options allow you to import PFA and PFB type fonts into the VI Design Pro fonts directory.
Use Import Roman PostScript Fonts for fonts using the Standard Roman (or Latin) Character Set as defined in Adobe's PostScript Language Reference Manual. This is the option generally used for Latin.
Type 1 fonts delivered by font vendors. These fonts are suitable for re-encoding using the default re-encoding table, and can be referenced in the `xgf\encoding\fontlist` file.

Note: Xerox Specialty Imaging fonts must be imported into VI Design Pro using the Import Roman Fonts option described above in order for VDP to find the fonts and render them on the screen. A pattern representing the special effect appears on-screen, as the effect is only generated on the FFPS when the application is printed.

Use Import Special PostScript Fonts for fonts using any other character set (typically barcode fonts or fonts converted from other legacy formats). These fonts must not be re-encoded and must be referenced in the `xgf \encoding\nullfl` file.

Using either option, one or more fonts can be selected. The fonts will be converted into regular PostScript fonts and placed in the `C:\Program Files (x86)\Xerox\VIPP\vide\fonts` directory. Also, as part of the font conversion process, the file `C:\Program Files (x86)\Xerox\VIPP\vide\xgf\encoding\fontlist` (for roman fonts) or `C:\Program Files (x86)\Xerox\VIPP\vide\xgf\encoding\nullfl` (for special fonts) will be updated with the newly imported font names. By default, the VIPP® font names are of the incremental form /RFAAxxxx (in fontlist) or /SFAAxxxx (in nullfl) where xxxx is a number ranging from 0000 to 999999. The resulting fontlist or nullfl file can be edited to change these names or add font family information.

Within VI Design Pro, the font key names cannot be more than 10 characters long, not counting the slash (e.g. /RFAA123456), due to current constraints in the GUI menu display width format; however, this limit should be sufficient for most purposes since VIPP® font key names are meant to be short names used as shortcuts for the long font names.

Important: These fonts are often subject to licensing agreements and must be used in accordance with the terms of the agreement. You are responsible for checking the licensing agreement for any fonts and complying with the terms before installation for use with VI Design Pro.

Proof Print

This option allows you to print a job to verify the printed output. This option is intended for short-run printing for use in proofing the output of an application. This option can only be used with a PostScript printer.

Note: VI Design Pro is a design tool that allows you to test subsets of the print job data. Do not use VI Design Pro to test print jobs that exceed 100 pages. For best results, Xerox recommends that you limit the size of the subsets to 20 pages.

When you select **File > Proof Print**, the Proof Print window displays. Use this window to select the locally attached or network PostScript printer on which to print the application, specify the print criteria to use, and select any related resources.

Use the Use Evaluation License box to specify that you are using the VIPP® Evaluation license to print the job. The default is to leave this box blank. Refer to the *VIPP® Language Reference Manual* or **Help > VIPP Language Reference Manual** for more information about VIPP® evaluation licenses and how they impact the print jobs.

Use the Page Range boxes to define the range of pages to print. The page range selection in **File > Proof Print** refers to logical pages, while the graphic display shows the current and total physical pages of the application. This means that for Multi-Up applications the Proof Print page range selection values may not correspond 1-to-1 with the actual number or position of logical pages. Select the range of pages to be printed based on the desired logical page numbers, not the physical page numbers.

Use Select resources for an additional printout list box to select resources to include in the job. The list contains the VIPP® application resources associated with the item you have selected to print.

Convert PDF to EPS

Use Convert PDF to EPS to manually convert PDF files to EPS. Select the PDF file(s) to convert. You will be prompted to supply the target folder for the .eps files.

Modify PDF with Embedded EPS

VIPP® supports the use of PDF files as variable resources. However, VIPP® can only use the actual PDF file when printing to an APPE engine. When printing to a PostScript engine, VIPP® needs to convert the PDF to EPS. The process to embed the PDF file with EPS can be done in one of two ways:

- In line (using VI Design Pro), when adding PDF files to your project
- In batch mode using the Embed PDF with EPS option.

VI Design Pro will detect any PDF file added to a Project, and if not embedded with EPS, will embed the EPS information. This process can take a second or two per PDF. You can avoid this task interrupting your design work by embedding the EPS information in batch mode prior to editing your job, by using the Modify PDF with Embedded EPS option. To do so, place all PDF files in a folder, then select the Modify PDF with Embedded EPS option. Next, point to the folder containing the PDF files and select the PDF file(s) to embed.

Advanced PDF Options

Advanced PDF options such as transparency, are lost when generating the EPS image file, but are still retained in the PDF file. When printing the PDF to the PS interpreter, VIPP® will use the embedded EPS language.

Do not use this option with the FFPS Adobe Print Engine (APPE)

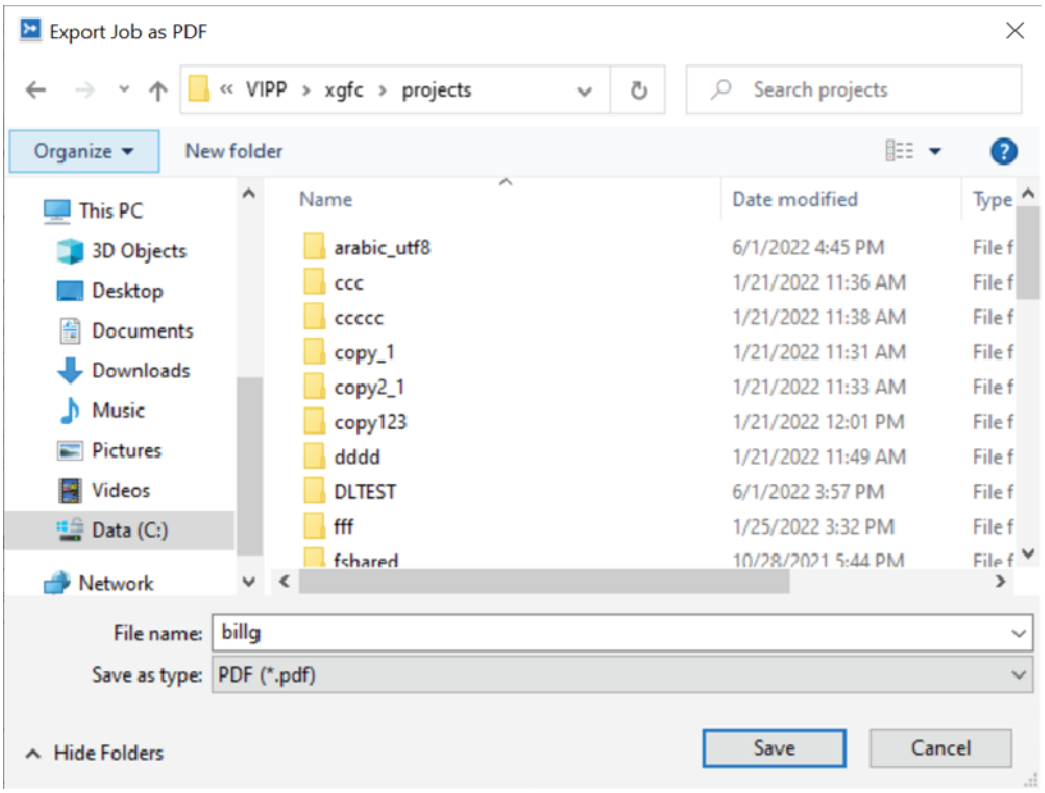
When you design applications targeting the FFPS APPE that use PDF resources, do not use this option. APPE can directly ingest the PDF resources in a VIPP® application.

Export Job as PDF

To use the Export Job as PDF option, you first have to open the job in VI Design Pro. VI Design Pro's GUI has been restricted, for performance reasons when developing VIPP® applications, to only display the first 100 records. Although you may not be able to load a large job (greater than 100 records) fully into VI Design Pro's GUI, when you select the option to Export Job as PDF, VI Design Pro will print all records, based on the submission data file you

selected.

With a job loaded into VI Design Pro, select **File > Export Job as PDF**. A dialog box will be displayed. Use the dialog box to specify the name of the PDF file. By default, the system will use the job name, and the folder to store the PDF file.



After specifying the PDF file name, browse to the folder in which you want to store the PDF file, then select Save to move to the next option screen.

Note: Depending upon the job options used (resolution, etc) and the number of records being processed, the time taken to create the PDF using the "Export Job as PDF" can take a while (5000 records may take 3 hours), locking up your workstation for this task. We recommend using the Export Job as PDF for small record counts and using the VI Project Container (.vpc) format for larger record counts. The same 5,000 records when exported to a .vpc file takes a few seconds to save the .vpc file and depending on the print engine, 25 minutes to print on a Xerox print device enabled with VI Compose.

The Options panel for the Export Job as PDF will be displayed.

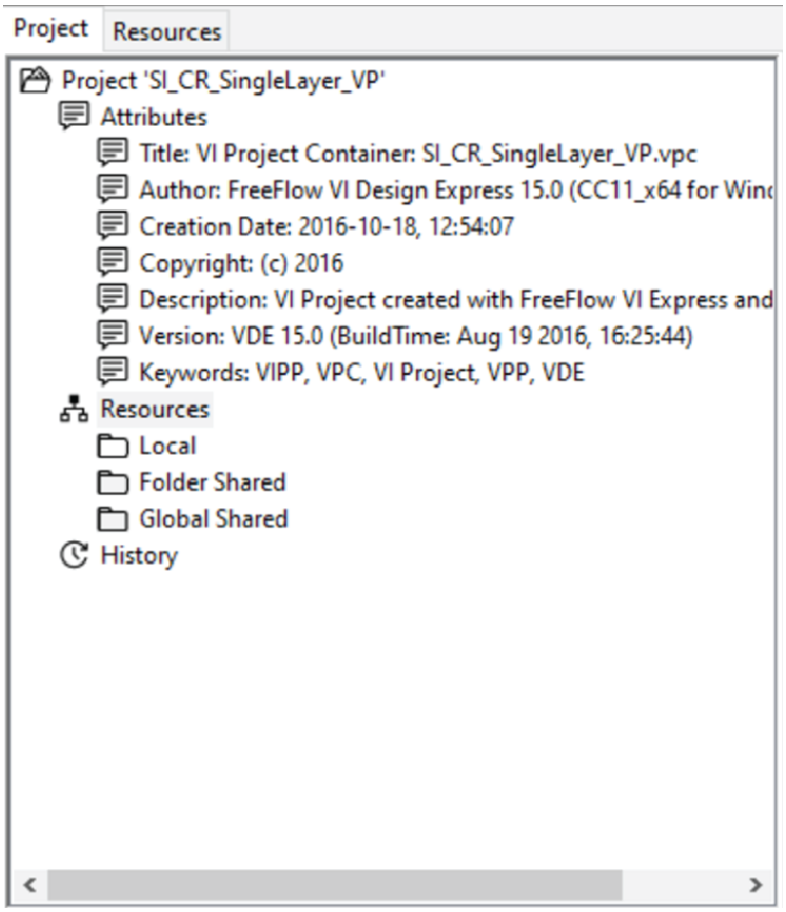
These options can be selected:

PDF QUALITY SETTINGS	DESCRIPTION
High	This will generate print quality PDF. Because the PDF file will be of a higher resolution, it may take longer to generate the PDF file and the size will be larger than the other options.
Medium	This will generate a PDF of medium print quality. This will be quicker to produce than the option above and the PDF file should be smaller in size.

PDF QUALITY SETTINGS	DESCRIPTION
Low	Intended for proof or archive & viewing, this will generate a PDF of low resolution. This will be quicker to produce than the option above and the PDF file should be smaller in size.
Custom	This option allows you to browse your file system for Adobe Job Option files, which allow total control of the options used to generate the PDF file.
View PDF after completion	VI Design Pro will generate the PDF file and save to the location you specified above. If you select View PDF after completion, VI Design Pro will attempt to open the PDF file in Adobe Acrobat or Reader. If neither are present on your PC, then this option will be ignored.
Create Log file	This option will generate a log file detailing JobOptions file used, Output Folder, font information, etc. This option is recommended only if you need to trouble shoot the PDF generation. If this option is used, it is up to the user to manually delete these log files (located in the same folder as the PDF file).
Use production data for submission (if available)	If a production data file has been added to the project using the Add Resource to Project option, you can select to print that production data file by selecting this option. If this option is unchecked, VI Design Pro will assume no production data file exists and will use the data file used during the design of the application.

PDF QUALITY SETTINGS	DESCRIPTION
Include media and finishing options	Select this option to include all of the media and finishing options that have been defined and enabled for the job in the finished PDF. This option is intended for use with FreeFlow Print Server devices using the Adobe PDF Print Engine (APPE). It will have no effect on any other printer. Selecting this option will increase the size of the resulting PDF, sometimes significantly, depending on the number of media changes and finishing options defined for the job and the total number of pages.
Create PDF/VT1 compliant	Select this option to create a PDF/VT1-compliant PDF. There are two options available to select: **PDFX3 2003 Joboptions** and **PDFX3 2003 JPN Joboptions**. The additional profile options are available when you select **Include media and finishing options** and **Create PDF/VT1 compliant PDF** to create PDF/VT-1-compliant PDF files that include media and finishing options. Note: Not all printers support PDF files that contain media and finishing requests or that are compliant with the PDF/VT-1 standard. Only print server systems support feeding and finishing requests.

The graphic below shows a typical VI Project file. The TestText.dbf file is the test file used during the design of the application. This is signified by the Printer and Cog wheel icon. The vtpworkshop.dbf file has been added as a production data file, as signified by the Printer and the number "1".



Recent Files

This option displays the last four files that you loaded on VI Design Pro. Use **File > Recent Files** to select and reload one of the listed files.

Exit

This option allows you to exit VI Design Pro. When there are unsaved changes in an open VIPP® application you will be prompted to save them.

Notes About Exporting a Job as a PDF

VI Design Pro can export the VIPP® application to a PDF file in a location you specify on your file system. Additionally, if the option is checked, it will open the PDF in Acrobat Reader for viewing purposes. Other options can be checked to enable a log file or to specify the sample or production data file.

Efficiency

Exporting to a PDF is not as efficient as outputting to VIPP® legacy or VI Project formats.

Caveats when exporting a PDF file:

Unpredictable results will occur if using Xerox Specialty imaging and exporting to PDF. Xerox Specialty Imaging effects are not supported when exporting to PDF.
Plex changes within a job are not supported unless you are printing to an FFPS APPE engine supporting PDF/VT.
Feeding and finishing options selected within a job may not be supported unless you are printing to an FFPS

APPE engine supporting PDF/VT.
The table shown below is a comparison of printing jobs containing 50, 100, 500, 1000, 3000 and 5000 records, to exporting the same files using the PDF option. Included in the comparison is the time to generate the files (.vpc and PDF) and print those files on the same Printer, and a comparison of the file size based on the record count.

- The application used for the performance test below is a 4 up Post Card application printed duplex on a 12' x 18' sheet.

- The PDF output was generated using the Standard-USLetter.joboptions file.
- The target print device was an FFPS XC1000.

NUMBER OF RECORDS	VPC SIZE	VPC PROCESS AND PRINT TIME (IN SECONDS)	PDF CREATION AND PRINT TIME [1] (IN SECONDS)	PDF SIZE	PDF CREATION TIME (IN SECONDS)	VPC TIME SAVINGS [2] (IN SECONDS)
100	129mb	57	66	1.35mb	7	9
500	129mb	152	331	3.84mb	26	179
1000	129mb	736	1,366	6.39mb	46	630
3000	129mb	887	4,151	17.3mb	131	3,264
5000	129mb	1,446	6,932	27.5mb	212	5,486

1. Includes PDF creation time on Workstation.
2. VPC Time Savings is the difference in time when using a .vpc and VI Compose (on the Printer). Based on the information presented in this chart, there are substantial performance benefits to using VI Compose on the target print device and the vpc output from VI Design Pro when dealing with large record volumes.

Note: Times will vary based on the sheet size, the complexity of the application, the type of image, and conditional logic applied. The chart above should be used as a guide only. For more accurate information perform the same type of test on your own equipment.

Based on the results shown in the chart above, there are obvious benefits to using VI Compose on a Xerox print device when printing large volumes of records. If not already enabled, contact your local sales representative to purchase VI Compose for your print device.

Note: When VI Design Pro is generating the PDF file, the workstation should not be used for other purposes. Using the workstation for other purposes will greatly affect the time.

EDIT MENU

The Edit menu provides these editing functions:

Undo

This option allows you to reverse the most recent text change, deletion, or addition you made on the Input Source or Resource Notebook section of VI Design Pro's window.

Redo

This option allows you to reverse the preceding Undo operation.

Cut

This option allows you to remove selected text in the Input Source or Resource Notebook section, or to remove a selected object in the Graphical Display section. Text or objects removed by **Edit > Cut** are stored on the Clipboard.

Copy

This option allows you to copy selected text in the Input Source or Resource Notebook section, or to copy a selected object in the Graphical Display section. Text or objects copied by **Edit > Copy** are stored on the Clipboard.

Paste

This option allows you to paste the contents of the Clipboard at the current cursor position in the Input Source, Resource Notebook, or Graphical Display section.

Select All

This option allows you to select all of the text in the area in which the cursor is currently positioned. Cursor position and related options are described here:

Input Source section	all text in that section will be selected
Resource Notebook section	all text for the file displayed for the resource listed under the current tab will be selected. To select the text for more than one tab in the Resource Notebook section, you must access each tab separately and then choose **Edit > Select All** again.

Selected text is highlighted with a dark blue background. Once the text is selected, a cut or copy operation can be performed.

Find

This option allows you to search either the Input Source section or the currently tabbed resource in the Resource Notebook section for the first occurrence of a text string. Narrow the search criteria by enabling the Match whole word only or Match case fields.
Once you select **Edit > Find**, VI Design Pro locates the specified string. When a matching string is found, VI Design Pro highlights the found string.

Find In Project

This option allows you to search an entire project for all occurrences of a particular text string. When you select this option, the Find In Project window displays. Narrow the search criteria by enabling the Match whole word only or Match case fields. Refer to Output Resource section for more information.

Replace

This option allows you to search either the Input Source section or the currently tabbed resource in the Resource Notebook section for each occurrence of a text string and replace the string with another string. The search begins following the current cursor position.
Use Find what in this window to identify the string to locate and replace. Narrow the search criteria by enabling the Match whole word only or Match case fields.
Use Replace with to specify the string with which to replace the found text. To selectively replace the found strings, use Find Next and Replace. Use Replace All to make global changes.

Choose Resource Encoding...

This option invokes the Choose Encoding to Use for Resource Display dialog. Refer to Encoding multi-byte fonts for more information.

Mark text as Comments

This Ctrl+Alt+C allows you to add the % that marks a comment to the beginning of each line in a block of selected text.

Unmark commented text

This Ctrl+Alt+U allows you to remove the % from the beginning of each line of selected text. Any lines in the selected block of text that do not begin with a % will be ignored.

VIEW MENU

The View menu provides the capability to display these views in VI Design Pro window:

Note: If no view options are selected, VI Design Pro window displays only the graphical representation of the current page.

Source

This option performs the same task as the View Source button on the first tool bar.
When you enable **View > Source** variable data, the resource notebook containing the source code for the resources, and the graphical representation of the current page are displayed. Resize the windows and edit the contents in this mode.

Hexadecimal

This option performs the same task as the View Hexadecimal button on the first tool bar.

When you enable **View > Hexadecimal**, the variable data, the resource notebook containing the source code for the resources, and a graphic representation of the variable data or resource selected in hexadecimal format are displayed. The windows can be resized, however, you will not be able to edit the contents.
The next time you select the option which removes the checkmark, the graphical representation in the Graphical Display section returns to its original state.

Note: The Hexadecimal option cannot be selected unless the Source option is already enabled.

Output

This option allows you to display the results of the most recent Find in Project operation. The section windows can be resized and the contents edited. This option performs the same task as the View Output button on the first tool bar.

Full Screen

This option allows you to display a graphical representation of the current page in full screen mode, the same task as the Full Screen button on the first tool bar.
To disable full screen mode and return to the original view, select the **End Full-Screen Mode** button located at the end of the top tool bar.

DEBUG MENU

The Debug menu provides access to start, stop and reset a debug session, as well as a way to inspect breakpoints and run to and step past a set breakpoint. The menu consists of these options:

Insert/Remove Breakpoint

This option inserts or removes a breakpoint at the line of the current cursor location of the active text resource, the same task as the Insert/Remove Breakpoint button on the first tool bar. This option can only be selected when there is no active debug session in progress. A set breakpoint is indicated by a red stop sign indicator on the left edge of the text resource.

View Breakpoints

This option displays a list of the currently set breakpoints by filename and line number, the same task as the View Breakpoints button on the first tool bar. This option can only be selected when there is no active debug session in progress. You can browse through the currently set breakpoints by double-clicking the left mouse button on a breakpoint in the list, which will set a small green search marker at the selected breakpoint. Once you have selected the desired breakpoint, you can close the breakpoint list and, if desired, use the Insert/Remove Breakpoint menu option to remove the breakpoint.

Start/Stop Debug Session

This option is used to begin or end a debug session, the same task as the Start/Stop Debug Session button on the first tool bar. This option can only be selected when there are one or more breakpoints set. During a debug session, most of the rest of the user interface including the Resource Notebook tabs and Graphical Display buttons, is disabled, this is done to prevent operations that would disrupt debug operations. Details about running a debug session and recommendations are discussed in more detail in its own Debug Session section.

Run to Next Breakpoint

This option is used to execute the current page of the loaded job until the next breakpoint is hit, the same task as the Run to Next Breakpoint button on the first tool bar. This option can only be selected during a debug session. If a breakpoint is hit a yellow arrow marker, also referred to as the program counter, will indicate the

location of the breakpoint on the line which was just executed. If there are no more breakpoints encountered the debug session will display the current page of the loaded job and the debug session will automatically end.

Step to Next Line

This option is used to step from the most recent executed line to the next, the same task as the Step to Next Line button on the first tool bar. The next line may or may not be the next physical line of the text resource depending on the logical conditions or other operations that are determined by the contents of the text resource. The yellow arrow marker (program counter) will relocate to indicate the location of the line which was just executed. If there are no more lines left to execute for the current page of the loaded job the debug session will display the current page of the loaded job and the debug session will automatically end.

Reset Debug Session

This option is used to reset the current debug session, the same task as the Reset Debug Session button on the first tool bar. When this option is selected the internal history of which breakpoints have been hit and the location of the program counter are both wiped clean, just as if the debug session had been started fresh. This option is useful if the user accidentally steps past a point of execution and wishes to run or step to that location again without having to stop the debug session entirely and restart it again.

HELP MENU

The Help menu provides access to the online help for VI Design Pro and VIPP®, as well as version and copyright information about VI Design Pro. The menu consists of these options:

VI Design Pro Help

This option accesses the VI Design Pro Online Help. Use the Contents, Index and Search tabs to locate help information.

VIPP® Language Reference Manual

This option accesses the *VIPP® Language Reference Manual* Online Help facility. Use the Contents, Index, Search, and Favorite tabs to locate the related help topics, for example, VIPP® command information.

Install/Update Software License

This option allows you to identify the name and location of a valid license file to VI Design Pro. Some of the conditions under which you would use this option include:

- A valid license file was not available at the time of installation
- The current license is about to expire or has expired
- To convert from the demonstration version of VI Design Pro to the fully licensed software version.

When you select this option, the Please select the license file window appears. Use this window to select the directory and name of the file that contains the valid license information. Once the appropriate file name appears in the File name field, select **Open**.
When the License Update Requires Restart window appears, select **OK** to install or update the license file.

About VI Design Pro

This option provides copyright and version information for the VI Design Pro application.

PRIMARY TOOL BARS

The tool bars in the upper most section of the VDP application window consist of:

- First Tool Bar Buttons and List Boxes
- Second Tool Bar Buttons and List Boxes

First Tool Bar Buttons and List Boxes

Use the buttons on the first tool bar of VI Design Pro window to perform numerous tasks relating to file operations.

This section describes the function of each button or list box available on the first tool bar, in order, beginning at the left-most button.

Note: Windows ToolTips are enabled on each button and list box found on all VI Design Pro tool bars. The pop-up information allows you to quickly identify each of the available functions.

New VIPP® Application

This button allows you to create a new VIPP® application. When you select this button, either the VI Design Pro Wizard window or the New VIPP Application window appears.
The window that appears depends on whether the Always Use Wizard Classic box is enabled on the VI Design Pro Wizard window. For detailed information about how to display and use either of these windows, refer to Creating or modifying applications.

Open VIPP® Application or Project

This button allows you to open an existing VIPP® application. When you open an existing VIPP® application, you can view the application information, modify the existing information, execute the application, and so on. When you select this button, the Please choose the file to load window appears. Use this window to select an existing VIPP® application. When you first access this window, the Look in field view shows the name of the last directory from which you loaded a file. If this is the first time after installation that you are loading a file, the Look in field view defaults to the VI Design Pro file folder that was loaded on the system when you installed VI Design Pro.
For more information, refer to Creating or modifying applications.

Save file

This button allows you to save the changes you made to the current page of the existing VIPP® application. For example, when you make changes to the JDT tab and click this button, only the changes you made to the JDT tab are saved. To save all changes that you have made to the VIPP® application, use Save all files.

Save all files

This button allows you to save all of the changes that you made to the VIPP® application. If you only want to save the changes you made to the current page of the application, for example, when you only made changes to the JDT tab, use the Save file button instead.

Create VI Project from currently loaded application

If you have an application that was created with an earlier release of VIPP® and want to create a Project for that application, use this button . Using this button allows you to create a Project directory for the application, copy the associated resources from their previous location to the Project directory, and create a VI Project File. A

VI Project file has a file extension of `vpf`. After the `.vpf` file is created, VI Design Pro automatically loads the new file into VI Design Pro window.

Export VI Project Container

This button allows you to create a compressed archive file from the currently loaded VI Project. The compressed archive file can be used for activities such as an email attachment, archiving, deployment, and so on.
When you select this option, the Please select export destination window allows you to specify the directory and file name to use for the archive file to be created. When you specify a directory and file name and select **Save**, VI Design Pro creates the compressed archive file. The compressed archive file has a file extension of `vpc`.

Cut (Ctrl+X)

This button allows you to remove selected text from the Input Source or Resource Notebook section, or remove a selected object from the Graphical Display section. Removed text or objects are stored on the Clipboard.

Copy (Ctrl+C)

This button allows you to copy selected text in the Input Source or Resource Notebook section, or copy a selected object in the Graphical Display section. Copied text or objects are stored on the Clipboard.

Paste (Ctrl+V)

This button allows you to paste the contents of the Clipboard at the current cursor position in the Input Source, Resource Notebook, or Graphical Display section. The paste operation does not erase the Clipboard.

Find in Project

This button allows you to search a project for all occurrences of a particular text string. When you select this button, the Find In Project window displays. Use this window to identify the string to locate. This option is the same as the **Edit > Find** in Project option.

Undo

This button allows you to reverse the text change you just made to the Input Source or Resource Notebook section of VI Design Pro window. Use this button to undo the most recent text change, deletion, or addition that you made to the VIPP® application. This option is the same as the **Edit > Undo** option.

Redo

This button allows you to reverse the Undo operation you just made to the Input Source or Resource Notebook section of VI Design Pro window. This option is the same as the **Edit > Redo** option.

View Source

This button displays the variable data, the resource notebook containing the source code for the resources, and the graphical representation of the current page. The windows can be resized and the contents edited in Source mode.

View Hexadecimal

This button displays the resource notebook containing the source code for the resources, and a graphical representation in hexadecimal format. The windows can be resized, however, the contents cannot be edited.

Note: The View Hexadecimal button cannot be selected unless the View Source option is already enabled or the View Source button is toggled to display the source code and graphical representation of the current page.

View Output

This button allows you to display the results of the most recent Find in Project operation. The section windows can be resized and the contents edited.

Full Screen

This button displays a graphical representation of the current page in full screen mode. In full screen mode, only the top and bottom tool bars of the Graphical Display section appear in the window.
To disable full screen mode and return to the original view, select the End Full-Screen Mode button.

Insert/Remove Breakpoint

This option inserts or removes a breakpoint at the line of the current cursor location of the active text resource. This option can only be selected when there is no active debug session in progress. A set breakpoint is indicated by a red stop sign indicator on the left edge of the text resource.

View Breakpoints

This option displays a list of the currently set breakpoints by file name and line number. This option can only be selected when there is no active debug session in progress. You can browse through the currently set breakpoints by double-clicking the left mouse button on a breakpoint in the list, which sets a small green search marker at the selected breakpoint. Once you have selected the desired breakpoint, you can close the breakpoint list and, if desired, use the Insert/Remove Breakpoint menu option to remove the breakpoint.

Start/Stop Debug Session

This option is used to begin or end a debug session. This option can only be selected when there are one or more breakpoints set. During a debug session most of the rest of the user interface including the Resource Notebook tabs and Graphical Display buttons is disabled, this is done to prevent operations that would disrupt debug operations. Details about running a debug session and recommendations are discussed in more detail in its own Debug Session section.

Run to Next Breakpoint

This option is used to execute the current page of the loaded job until the next breakpoint is hit. This option can only be selected during a debug session. If a breakpoint is hit a yellow arrow marker, often referred to as the program counter, indicates the location of the breakpoint on the line which was just executed. If there are no more breakpoints encountered the debug session displays the current page of the loaded job and the debug session will automatically end.

Step to Next Line

This option is used to step from the most recent executed line to the next. The next line may or may not be the next physical line of the text resource depending on the logical conditions or other operations that are determined by the contents of the text resource. The yellow arrow marker or program counter, relocates to indicate the location of the line that was just executed. If there are no more lines left to execute for the current page of the loaded job, the debug session displays the current page of the loaded job and automatically ends.

Reset Debug Session

This option is used to reset the current debug session. When this option is selected the internal history of which breakpoints have been hit and the location of the program counter are both wiped clean, just as if the debug session had been started fresh. This option is useful if the user accidentally steps past a point of execution and wishes to run or step to that location again without having to stop the debug session entirely and restart it again.

Refresh current page of application

This button allows you to execute the current page of the VIPP® application along with any variable data associated with the page. The current page appears at the bottom of the Graphic Display section.

Note: Pressing the **Refresh current page** of application button is not equivalent to resubmitting the job to a printer. In VI Design Pro, the memory is not reset when you press **Refresh current page** of application and the Ghostscript interpreter continues to run without update for optimization purposes. Only pressing **Reset VIPP** then **Refresh current page** of application, in that order, runs a new instantiation of the Ghostscript interpreter. Refer to Reset VIPP.

Refresh currently active text resource

This button allows you to execute the currently selected resource. Use this button, or F5, to redisplay the information for the current resource showing any changes that you have made.

Drop target for Graphic Editing tools

This box displays the name of the resource into which VIPP® commands are inserted when the insert buttons found on the vertical tool bar in the Graphic Display section are used.
When you have cleared the View Source check box, the drop target box is the only way to select individual resources for viewing.

View PostScript Segment Anchors

This button allows you to display PostScript segment anchors. If you select this button, the graphic shown on the button appears in the Graphical Display section to indicate each position at which a PostScript segment anchor exists.
In general, segments are fragments of VIPP® or PostScript code that are placed on a page. Each placement of a segment that consists of only PostScript code is noted with an icon in the Graphical Display section of VI Design Pro window when you enable the View PostScript Segment Anchors button.
To place a segment in the desired position on the page use the drag and drop feature to move the anchor.
When you move a segment anchor, the new position is updated in the code for the application. Segments that contain VIPP® code have bounding boxes and are not represented by a segment icon.

Reset VIPP®

This button resets VI Compose. This option may be required if you accidentally introduce a VIPP® or PostScript error when manually editing a VIPP® resource.
Use this button with Refresh current page of application to run a new instantiation of the Ghostscript interpreter when you have made changes to VIPP® configuration files `xgf/src` or `xgf/encoding`.

Note: The only method to reset memory and run a new instantiation of the Ghostscript interpreter is to press **Reset VIPP** then **Refresh current page** of the application, in that order.

Proof Print

This button allows you to print a job to verify the printed output. This option is intended for short run printing for use in proofing the output of an application. Only use this option with a PostScript printer. This option is the same as the **File > Proof Print** option.

Help

This button performs the same task as the **Help > VI Design Pro Help** option. Use the Contents, Index, and Search tabs to locate help information. You also can access the *VIPP® Language Reference Manual* online help information.

Second Tool Bar Buttons and List Boxes

Use the buttons and list boxes on the second tool bar of VI Design Pro window to select the font and color options to be applied when performing operations in Graphic Editing mode.

This section describes the function of each button or list box, in order, beginning at the left most list box.

Font

This box allows you to select the font to use. This list includes all fonts that are currently available.

Font Size

This box allows you to select, or manually enter, the size of the font to use.

Font Foreground Color (Colorkey)

This box allows you to select the name of the text Colorkey to use. The box on the left side of the box displays the color that you selected. This list includes all of the font Colorkeys that are currently available for use.

Active Font Background Color (BATKey)

This box allows you to select the name of the background attribute key to assign to the background attribute key index. The box on the left side of the box displays the background that you selected. This list includes all of the background attribute keys that are currently available for use.

Underline

This button allows you to underline subsequently inserted text. After selecting this button, use **Insert Text**, or **Insert Paragraph** on the vertical tool bar in the Graphic Display section.

Font and Effects Preview/Select/Sample

This button allows you to preview fonts, GEPKey and BATKey effects. It also allows you to change the text displayed in the Font Sample boxes found in many VDP dialogs.
To change the sample text viewed in the Sample Font window on some Wizard screens, and the Index Font and Set Font Command dialogs, enter the desired text in the Sample Text box, then select any of the defined effects and click **OK**.

Graphic Element Property

This box allows you to select the Graphic Element Property (GEP) key to use. The box on the left side of the box displays the color that you selected. The list includes all of the GEP keys currently available for use.

Input Source Section

To display the Input Source section on VI Design Pro window, **View > Source** or the View Source button on the first tool bar must be enabled.

Once you open an existing VI Project or VIPP® file, or create a new VI Project using a template, the Input Source section contains the input data for the project or application. This data can be real data that was created and obtained from an external application, or it can be sample data that was created while using VI Design Pro to test the output.

Use the Input Source section to modify the data for an existing VI Project or application, or to enter the data needed when creating a new VI Project or application. You enter data in either of these ways:

Text Editor mode	Place the cursor in the correct position in the section and enter the changes.
Smart Editor mode	Place the cursor in this section and right-click to display the right mouse button menu.

Key Strokes and Mouse Clicks

When the code for your job is visible on the VDP GUI, you have options for marking or highlighting sections of that code:

- Use **Ctrl+Alt+C**, and **Ctrl+Alt+U** to add or remove a % (comment indicator) from the beginning of the line in which your cursor is positioned.
- Use your mouse to click one character inside a beginning brace, or an **IF/ENDIF**, or **CASE/ENDCASE** command keyword, to highlight the section of code encapsulated by that brace or keyword.

```
ILAND
[[0152 2190 3000 1670 0]] SETLKF
/NHE 12 SETFONT
{ [ [ /MaxHeight 80 /CellFill LBLUE /Margins [25 0 10 0] /CellStroke W_S1  ]
    [ /Width 500  /CellText (Account Name $$RPCOUNT.) VSUB ]
    [ /Width 500  /CellText (SBU Acct DTT) ]
    [ /Width 500  /CellText (UltDUNS with Max MIF) ]
    [ /Width 500  /CellText (Assessment) ]
    [ /Width 500  /CellText (Proposal) ]
    [ /Width 500  /CellText (No Opportuntity) ]
  ] SHROW
} 50 REPEAT
```

Resource Notebook Section

To display the Resource Notebook section on VI Design Pro window, the **View > Source** option or the View Source button on the first tool bar must be enabled.

Once you open a VIPP® application, file, or VI Project, the resources associated with the application are displayed in the Resource Notebook section. The code for each resource can be displayed using the tabs that are produced across the top of the Resource Notebook section. If the application you open or create is a VI Project a Project tab and window will also be produced. The information for a project includes VI Project attributes, resources, and the project's history.

If the number of tabs exceeds the tab space available at the top of this section, a horizontal scroll bar will appear to allow you to access the remaining tabs.

Use the tabs or click on a resource to view or make changes to the files or resources. Any changes you make are updated in the code and display in the Graphical Display section of VI Design Pro window once you press F5 or the Refresh currently active text resource button. This functionality is equivalent to printing the changes on the printer to verify how they affect the output of the application.

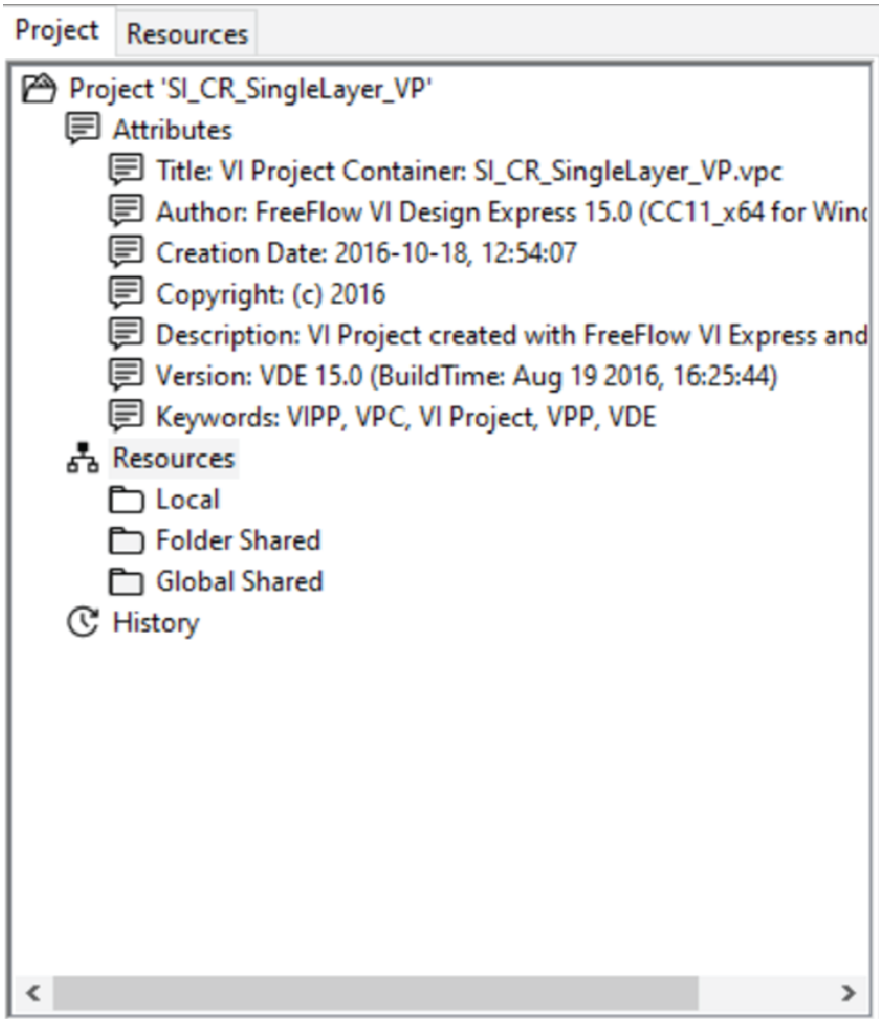
The Resource Notebook section contains the following types of tabs:

- Project Tab
- JDT Tabs
- DBM Tabs
- Segment Tabs
- Form Tabs
- Image Tab
- XJT Tabs

Refer to Creating or Modifying Applications for more information.

PROJECT TAB

When you open or create a VI Project with VI Design Pro, the Resource Notebook section of VI Design Pro window displays a Project tab. The Project tab contains information identifying the attributes, resources, and history associated with the project. Use this tab to make changes to the application using left mouse functions, or to display the contents or attributes of a specific resource.



Note: Existing VIPP® applications that have not been saved as a VI Project will not display this tab.

The Resource Notebook Project tab is divided into three main sections:

NAME OF THE SECTION	DESCRIPTION
Attributes	the project name, title, author, creation date, copyright information, a brief description of the project, and the version number and keywords associated with the project.
Resources	the files and folders used by the project. Resources are contained in three nodes named: Local, Folder-shared, and Global-shared.
History	The actions included in project history are additions and deletions of resources, resource movement from one scope to another, and resource modification. When a project is saved the accumulated actions taken during the session become modification entries in the project history. Each modification entry is tagged with the user name and the date and time of the modification.

Mouse Functions in the Project Tab

Use these mouse functions to make changes to the project within the Project tab:

- Drag and drop; dragging resources between folders will cause the corresponding resource files to be moved at the file system level.

  The resources that appear within the Resource Notebook window may be reordered within a folder by using the mouse to drag and release them. The insertion point is immediately below the drop target. The resource may be moved to the first position in the folder by dropping it on its parent folder.

  Change the order of the submission files (displayed in the Local node) by using the mouse to drag and drop a new position in the submission order. The entire submission file list will be re-ordered.

- Point and click to select a resource. This action executes either the resource or the print file, as appropriate.
- Right-click any resource to produce a right mouse button menu. The pop-up menu will contain commands that can be invoked for the selected resource. Depending upon the type of resource selected, the following commands can appear:

Properties	Allows you to enter text describing the resource. The entered text will appear after the resource name on the Project tab.
Launch Associated Application	Allows you to launch a Windows application associated with the selected resource. For example, if you use a third party graphic editing program, right-click an image resource in the project, then select this option to launch the graphic editor.
Add Resource to Project	Allows you to add a new resource to a project.
Remove Resource from Project	Allows you to remove the resource from the project.

- Double-click a resource to cause VI Design Pro to display the resource text in VI Design Pro window, or to open the notebook tab.
- Click the left or right Home button, found at the lower left corner of VI Design Pro window, to display the first or last tab in the Notebook display.
- When multiple graphics are placed in the same area so that they overlap, they are layered. In many graphic applications the order of the layers can be manipulated by sending a layer to the back, or by bringing a layer to the front. However, with VIPP®, the order is a function of where the source line appears in the VIPP® Resource Notebook.

Therefore, rather than reordering layers to select a specific layer, use the Shift/Left-click combination to select and deselect specific layers until you access the desired layer. In addition, use the rubber band group select functionality and then deselect until you access the desired layer.

Keyboard Functions in The Project Tab

Use these keyboard functions to make changes on the Project tab:

- Use the Up and Down arrows to select or execute resources in sequence.
- Delete resources using Delete.
- Add a resource to a project using Insert once any node of the Project tree has been selected. If the currently selected node is a resource, a new resource will be inserted immediately below the selected node. If the currently selected node is the Local, Folder-shared, or Global-shared node the new resource will be inserted as the first resource under the node. When any other node is selected the user will be prompted for the target scope of the resource then the resource will be added in the first position in the selected node.
- The position of a selected resource can be changed by using Shift in combination with the up or down arrow key.

  Change the order of the submission files (displayed in the Local node) by using Shift in combination with the up or down arrow key. Moving a file to a new position in the submission order causes the entire submission file list to be re-ordered.

  Note: No more than one node of the Project tree may be selected or manipulated at one time as conflicts may occur.

Project Tab Icons

Several kinds of icons are displayed in the Project tab area of the Resource Notebook window. The icons are graphic representations of the resources' type, submission order, and the active state of each icon.

- **Resource type icons**

  The left-most icon indicates the type of resource listed. Unique icons are produced for each of the following resource types:

  - forms
  - images
  - segments
  - text, data, and program files
  - PostScript files
  - submission files

- **Submission order icons**

  The names of submission files appear in the Local node of the Resource section of the Project tab. These files are accompanied by small printer icons superimposed with a number between 1 and 9, or by a for numbers greater than 9. The number 0 is reserved for the PrintFile and VI Design Pro. The PrintFile is displayed as a small printer icon with a gear alongside.

  Submission files always appear in their submission order. Submission file order can be changed by shifting a submission file in relation to other submission files using the mouse to drag and drop the file, or by selecting the file then using Shift in conjunction with the up or down arrow key to move it.

- **Resource state icons**

  The icons found to the immediate right of the resource type icon reflect the active state of each of the listed resources.

- An outlined checkmark appears when the resource has been referenced or executed at least once.
- A solid checkmark indicates that the file has been referenced or executed in the context of the most recently executed resource.

The absence of an icon indicates that the resource has not yet been referenced or executed by the VIPP® interpreter in the context of the current project.

JDT TABS

When you open or create a line mode application with VI Design Pro, the Resource Notebook section of VI Design Pro window section displays the .jdt tab, which contains the Job Descriptor Ticket (JDT) information for the application. Use this tab to make changes to the application using the right mouse button menu. Refer to Creating or modifying applications for further information.

When you select the JDT tab, the Graphical Display section of VI Design Pro window displays and processes the entire application, including the application data, segments, forms and other resources, as well as any instructions included in the JDT.

DBM TABS

When you open or create a Database mode application with VI Design Pro, the .dbm tab, which contains the Data Base Master (DBM) information for the application, is displayed. Use this .dbm tab to make changes to the application using the right mouse button menu. Refer to Creating or modifying applications for further information.

When you select the DBM tab, the Graphical Display section of VI Design Pro's window displays and processes the entire application, including the application data, segments, forms and other resources, as well as any instructions included in the DBM.

SEGMENT TABS

When you access an application that includes segments, or add a segment to an application, .seg tabs appear in the Resource Notebook section of VI Design Pro window. A separate segment tab appears for each segment that is associated with the application. These segment tabs contain all the information for the related segments. You can find segments in applications created in Native Mode, Line Mode, or DataBase Mode.

In general, segments are fragments of VIPP® or PostScript code that are placed on a page. Each segment that consists of only PostScript code is noted with an icon in the Graphical Display section of VI Design Pro window when you enable the Show Anchor for PostScript Segments button. Segments that contain VIPP® code have bounding boxes and a segment icon does not represent it. Refer to First tool bar buttons and list boxes for more information.

Use the **Drag and Drop** feature from the Graphical Display section of the window to move this anchor. This action helps to place the segment in the desired position on the page.

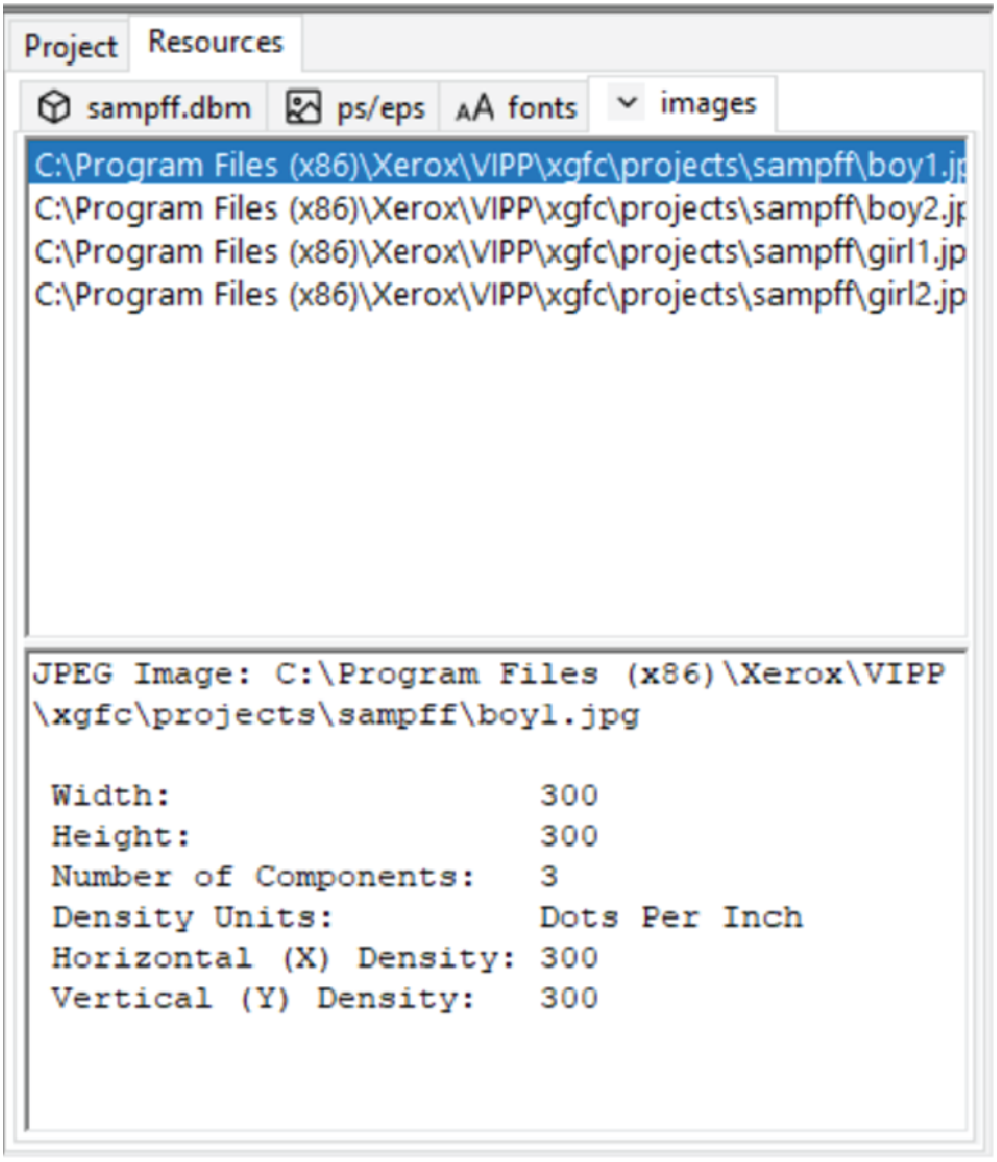
FORM TABS

When you access an existing application that includes forms, or you add a form to an application, .frm tabs display in the Resource Notebook section of VI Design Pro's window. A separate form tab displays for each form that is associated with the application. Forms can be found in applications created in Native Mode, Line Mode, or DataBase Mode.

IMAGE TAB

When you access an existing application that includes images, or add an image to an application, the images tab displays in the Resource Notebook section of VI Design Pro window. Images can be found in applications created in Native Mode, Line Mode, or DataBase Mode.

The top section of the images tab contains a list of all of the images associated with the application. The bottom section displays the information for the image that is currently selected. Only one image tab displays, regardless of the number of images that are associated with the application.



Changes to an image in VI Design Pro cannot be made from this window. Refer to Mouse functions in the project tab for more information.

XJT TABS

When you access an existing XML application, or you an XML resource to an application, .xjt tabs display in the Resource Notebook section of VI Design Pro's window. A separate XJT tab displays for each XML resource that is associated with the application.

Debug Session Section

Once one or more breakpoints have been set and a debug session started an additional tabbed notebook will be displayed on the left side of the user interface immediately below the Resource Notebook. The tabs in the notebook are:

Variables

This is a list which shows the name, value, and type of the currently active user variables set direct or indirect use of the VI Compose **SETVAR** command. The list is shown in alphabetical order. Double-clicking the left mouse button on a variable adds that variable to the Watch list.

Watch

This is a list of the name and value of the variables, parameters, or definitions the user has selected for watching. During a debug session, there can be a great number of variables, parameters and definitions active, and the watch list provides a convenient way to monitor the value of a specific few of those in a single list during job execution. The list is shown in the order in which an entry was added to the Watch list. Double-clicking the left mouse button on a Watch list entry will remove that entry from the Watch list.

Definitions

This is a list of current definitions that do not fall into the category of user variables or system parameters, it includes things like font definitions, GEPKeys, and database field values at this point of job execution. The list is shown in alphabetical order. Double-clicking the left mouse button on a definition will add that definition to the Watch list.

Call Stack

This is a list of what text resource called or caused the current text resource to execute, by filename and line number, in most recent order. Another way of looking at the call stack is as a list that answers the question: How did I get here?. The top entry of the call stack is always the current location of the program counter. Double-clicking the left mouse button on a call stack entry shows the relevant text resource and line marked by the green search marker at the left edge of the text resource. The number of entries in the call stack list varies depending on how many times one text resource calls or causes execution of another text resource, but there is at least one (the current location of the program counter).

Breakpoints

This option displays a read-only list of the currently set breakpoints by filename and line number. You can browse through the currently set breakpoints by double-clicking the left mouse button on a breakpoint in the list, which sets a small green search marker at the selected breakpoint. This option is useful if you want to browse through breakpoints during a debug session but would otherwise be unable to due to the user interface lock down imposed during a debug session.

A debug session is always in the context of the loaded job and its current page, as selected in the right-hand side of Graphical Display. To debug for a specific page, ensure that you are not in an active debug session then browse to the desired page using the Previous and Next page buttons of the Graphical Display. Once you have the desired page, begin your debug session.

In most programming environments when a breakpoint on a line is hit it is understood that this line is about to execute, but hasn't yet. For VI Design Pro, when a breakpoint is hit it means this line has just executed. This is a by-product of how breakpoints are implemented in VI Compose. If you want to break execution before a particular piece of code is executed, adjust your breakpoint earlier in the text resource as appropriate.

It is currently possible to set a breakpoint in a text resource that will never be hit during execution. More specifically, avoid setting breakpoints on lines that consist entirely of comments, or on lines beyond the first line of a string that contains new lines. Examples:`% This is a comment, a breakpoint set on this line will not be hit.` or

```
(You can set a breakpoint on this first line and it will hit,
but don't set a breakpoint on this line
or on this line, as they won't be hit.) SHP
```

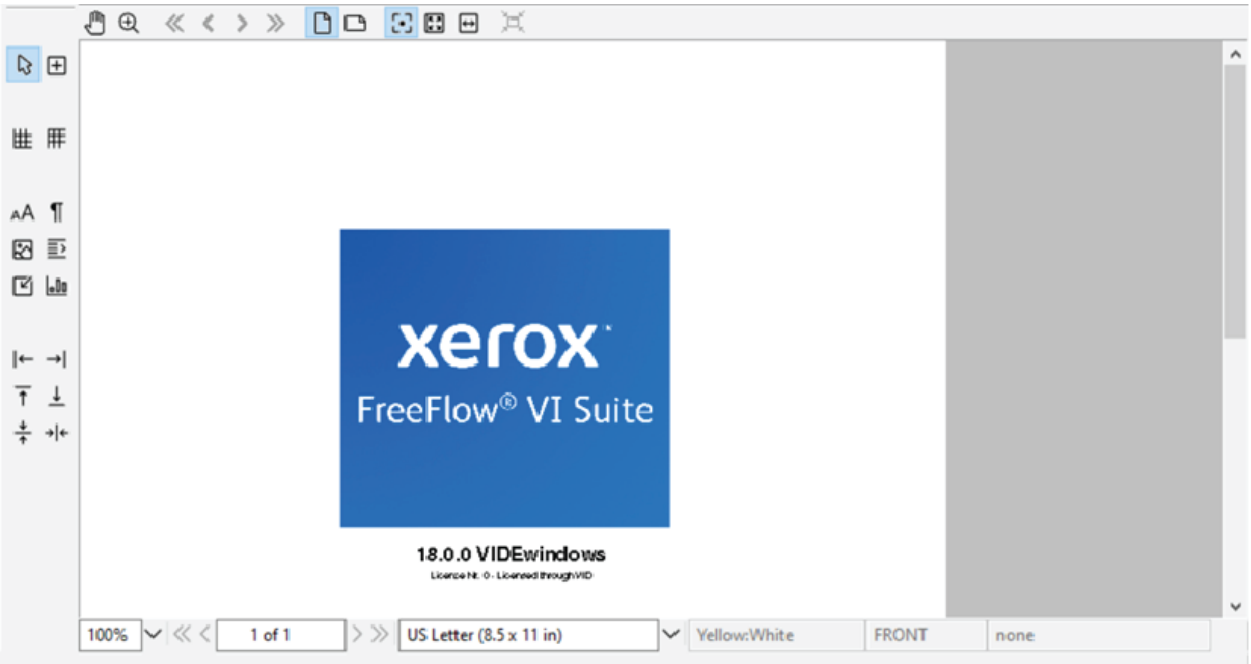
There may be other circumstances where this situation can occur. If so, stop the debug session and set a new breakpoint further back in the applicable code, restart the debug session until the breakpoint is hit, (repeating as necessary), then use the **Step to Next Line** option to step through subsequent lines.

Interactions with the Input Source and Resource Notebook, along with most other user interface elements, such as the Graphical Display, are disabled during a debug session. Adding or removing breakpoints can also only be done when not in an active debug session.

This is a by-product of how breakpoints are implemented for `VI Compose`, which involves code instrumentation in combination with a per-breakpoint reference count, all in the context of running in a non-imaging mode from the first page up until imaging mode is enabled for the currently displayed page. Allowing text resource changes during a debug session would invalidate code instrumentation, while allowing page number changes or addition/removal of breakpoints during a breakpoint session would invalidate the reference counts. Any of these would interfere with the debug state and result in undefined behavior.

Graphical Display Section

Once you open a VIPP® application or create one using a template, the Graphical Display section contains the PostScript RIP image of the VIPP® application in WYSIWIG format.



The displayed image represents the current output of the project or application. Use this section to verify how the application will look when it is output and to verify that any changes or additions that you make display correctly.

The Graphical Display section can also be used to move information within the display, rather than by using commands and keywords in the Resource Notebook section of the window. This is known as operating in Graphic editor mode.

Move or change the output shown in the Graphical Display section using the mouse to drag and drop elements or data items, or by right-clicking and element to display the element right mouse button menu. Refer to Mouse functions in the Graphic Display for more information.

When changes are made to the application (for example, to the data, color, formatting, fonts, placement, etc.), or after you clear the existing image displayed in the Graphical Display section, and you want to redisplay the results of the current page, select the Refresh current page of application button the first tool bar or F5. This redisplays the information for the current page with any changes that you have made.

Incorrect display of the job in the Graphical Display section may be the result of multiple SETPAGESIZE commands within the job.

To display correctly, the SETPAGESIZE parameters must be the same as the VI Design Pro Graphical Display section's media size setting. For more information on media size settings see the description of the Media size drop-down menu in Bottom graphic display tool bar.

Items in the Graphic Element Display cannot be selected on back pages if multi-up and tumble duplex are used at the same time.

Workaround: selection can be performed on back pages by temporarily commenting out TUMBLEDUPLEX_on or TWOUP/SETMULTIUP commands; selection can still be performed on front pages.

Elements seem to disappear if they are dragged outside of the bounding box.

When moving segment elements in the Graphic Element display, elements seem to disappear if they are dragged outside of the bounding box. This is the expected behavior. The bounding box (defined by the % % BoundingBox comment and highlighted by the dotted lines) is the area in which you can place elements of the segment. Anything placed outside of this area will not be imaged. If you want to enlarge this area you need to modify the % % BoundingBox statement (coordinates in this statement are always in points, see PLRM/2nd ed. [Red Book] p. 641).

Frames defined via 'SETLKF' can be selected, moved and resized.

Since a frame overlies the elements within it, to make it easier to select the frame itself the hotspot for the frame has been enlarged slightly. Left-clicking just outside the outermost of the elements within the frame should highlight the frame, indicating that the frame itself can then be moved/resized. To visibly differentiate a selected frame from other elements, the frame when selected will be highlighted in green.

MOUSE FUNCTIONS IN THE GRAPHIC DISPLAY

Right-clicking an element in the Graphical Display section of VI Design Pro window produces the element right mouse button menu. The menu provides access to the properties dialog related to the selected item, or will display the source of the selected item in the Resource Notebook section. These options are described in more detail in Smart Editor.

Individual elements or data items, or a group of elements and data items can be selected to move and then dragged and dropped in a new position. When this is done, the related information for the moved element is updated in the Resource Notebook section. This allows both elements and data to be moved at the same time, rather than having to access the element tab in the Resource Notebook section to move the element, and then access the JDT tab to move the data that displays within the element.

When you select an element or data item that is dependent on the placement of other elements or data items, all of the related items are selected indicated by a red, rather than a black, selection box around the items. When this occurs, and you move the item that you originally selected, all of the dependent items are moved as well.

Remove the dependency between items by right-clicking the item to produce the element right mouse button menu, selecting Properties, and changing the X and Y coordinates for the item to move.

Note: Graphical Element display support for VIPP® fragments within VIPP® frames (defined via the VIPP® SETLK command) is limited to selection, view source and properties. Dragging or resize of VIPP® elements within frames (where detectable by VI Design Pro) is disallowed in the current version of VI Design Pro. In these circumstances, VIPP® elements within frames will show a red outline when selected, indicating that they cannot be moved or resized. In some cases (as with the use of the NEWFRAME command) VI Design Pro cannot determine whether an element is within a frame or not and may not disable movement or resize for that element. If such an element is moved or resized, the result can be unpredictable.

GRAPHIC DISPLAY TOOL BAR BUTTONS AND LIST BOXES

Use the buttons on the three graphics tool bars on VI Design Pro window to perform tasks related to viewing or changing the information that appears in the Graphical Display section. The elements found on each of the three tool bars are described in these sections:

- Top Graphic Display Tool Bar
- Vertical Graphic Display Tool Bar

- Bottom Graphic Display Tool Bar

Top Graphic Display Tool Bar

The tool bar displayed horizontally across the top of the Graphical Display section of VI Design Pro window contains these buttons:

Hand Tool

This button allows you to move, or pan, the image displayed in the Graphical Display section of VI Design Pro window.

Zoom In Tool

This button allows you to enlarge the view of a particular portion of the displayed output. To return to the original view use the Zoom menu found on the horizontal tool bar at the bottom of the screen.

First Page

This button allows you to directly access the first page of a multi-page VIPP® application.

Previous Page

This button allows you to access the previous page of a multi-page VIPP® application.

Next Page

This button allows you to access the next page of a multi-page VIPP® application.

Last Page

This button allows you to access the last page of a multi-page VIPP® application.

Portrait

This button allows you to change the Graphical Display section to portrait orientation display height which is greater than width.

Landscape

This button allows you to change the Graphical Display section to landscape orientation display width which is greater than height.

Note: Selecting landscape or portrait orientation does not determine the actual orientation that is used to print the job. You must ensure that the actual job is formatted correctly, and that you select the correct orientation for the job when you specify the options for the printer you will use to print the job. In general, when you print the application, specify the same orientation that you selected using the graphics tool bar.

Actual Size

This button allows you to expand the viewed page in the Graphical Display section to the actual size of the page

Fit In

This button allows you to visually reduce the page so that the entire page can be viewed in the Graphical Display section.

Fit Width

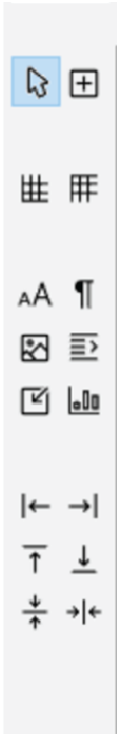
This button allows you to visually expand or reduce the page so that the viewed page is the width of the Graphical Display section.

End Full-Screen Mode

This button disables full screen mode and returns VI Design Pro window to the original view. Use this button after you have selected either the View Full Screen option or the Full Screen button and are finished viewing the contents of the displayed full screen.

Vertical Graphic Display Tool Bar

The tool bar displayed vertically to the left of the Graphical Display section of VI Design Pro window contains these buttons:



Selection Tool

This button enables the cursor to be used as a selection tool. This allows you to use the mouse to define an area or select an object. When this button is selected, the cursor displays as an arrow.

Position Tool

This button enables the cursor to be used as a position tool. When this button is selected, the cursor displays as a crosshair, and a real-time display of the current cursor position is displayed in the status bar at the bottom of the VI Design Pro screen.

Grid Bottom Left

This button provides a convenient, transparent method of applying the VIPP® BLGRID command to the currently displayed page or resource. For more information on BLGRID refer to the *VIPP® Language Reference Manual*.

Grid Top Left

This button provides a convenient, transparent method of applying the VIPP® TLGRID command to the currently displayed page or resource. For more information on TLGRID refer to the *VIPP® Language Reference Manual*.

Insert Text

This button allows you to insert text at the point at which the cursor resides.

Insert Paragraph

This button allows you to insert an entire paragraph at the cursor position.

Insert Image

This button allows you to edit an ICALL command.

Insert Segment

This button allows you to edit an SCALL command.

Insert Box

This button allows you to use the Graphical Display window to insert a box into the application.

Insert DDG

This button allows you to insert a bar chart, curve, or pie chart at the current cursor position.

Align Left

This button aligns selected text or objects to the left.

Align Right

This button aligns selected text or objects to the right.

Align Top

This button aligns selected text or objects to the top.

Align Bottom

This button aligns selected text or objects to the bottom.

Align Centered Horizontally

This button aligns selected text or objects horizontally to the center.

Align Centered Vertically

This button aligns selected text or objects vertically to the center.

Note: The alignment buttons on the vertical tool bar always adjust alignment relative to the physical CRT display, regardless of the orientation of the application. The buttons allow you to move and align selected objects, but do not change the coded command. For example, using the Align Left button to align a group of objects entered with the SHC command will not change the SHC (centered) command to a SHL (left aligned) command.

Bottom Graphic Display Tool Bar

The tool bar displayed horizontally across the bottom of the graphical display section of VI Design Pro window contains these buttons and list boxes:

Zoom menu

This box allows you to indicate or select the percentage by which to increase or decrease the magnification of the contents of the Graphical Display section.

Change the magnification using one of these methods:

- Manually enter a magnification percentage value in the zoom menu box and the n press Enter. If you exceed the maximum allowed zoom value an error message will be produced.
- Use the drop-down Zoom menu to select one of the following options:
  - 50%
  - 75%
  - 100%
  - 150%
  - 200 %
  - Maximum (value)
  - Actual Size
  - Fit in Window
  - Fit Width

Note: VI Design Pro automatically calculates the maximum magnification value available and indicates that value in parentheses. The calculated value will change depending on the current view produced in the graphical display.

Page indicator

These buttons allow you to access the first, next, previous or last page of a multi-page VIPP® application. You also can enter a specific page number and press Enter to access that page.

Media size drop-down menu

This box allows you to select the media for which to size the job as well as to view how the job displays on various paper sizes. A checkmark displays next to an item when it is selected.

In general, the option selected on this menu indicates the paper size on which to print the job. When changing the paper selection using this menu, the Graphical Display section of the window automatically changes based on the selection.

Note: Although the Media menu can be used to select and view how the application will print on various paper sizes, the option selected on this menu does not determine the actual paper size used to print the job. Ensure that the actual job is formatted correctly, and that the correct paper size is selected for the job when you specify the options for the printer used to print the job. In general, when printing the application, specify the same paper size selected from this menu.

Caution: Changing the media selection can cause problems with the VIPP® application. For example, a form that is formatted for A4 may not print at all when Tabloid is selected from the Media menu; and an application that is set up for US Letter may not look the same when you change the media to A4. Therefore, always make sure to check the Graphical Display section each time the media selection is changed to verify if the application displays correctly.

Select any of the following paper sizes, or enter a custom page size:

Index Card (3 x 5 in)	ISO B5 (176 x 250 mm)
Postcard (3.5 x 5.5 in)	ISO B4 (250 x 353 mm)
Statement (5.5 x 8.5 in)	ISO B3 (353 x 500 mm)
Executive (7.25 x 10.5 in)	ISO B2 (500 x 707 mm)
US Letter (8.5 x 11 in)	ISO B1 (707 x 1000 mm)
US Folio (8.5 x 13 in)	JIS B7 (91 x 128 mm)
US Legal (8.5 x 14 in)	JIS B6 (128 x 182 mm)
Tabloid (11 x 17 in)	JIS B5 (182 x 257 mm)
Tabloid Oversized (12 x 18 in)	JIS B4 (257 x 364 mm)
A7 (74 x 105 mm)	JIS B3 (364 x 515 mm)
A6 (105 x 148 mm)	JIS B2 (515 x 728 mm)
A5 (148 x 210 mm)	JIS B1 (728 x 1030 mm)
A4 (210 x 297 mm)	PRC16K (195 x 270 mm)
A3 (297 x 420 mm)	PRC 8K (270 x 390 mm)
A2 (420 x 594 mm)	(7 x 7 in)
A1 (594 x 841 mm)	(8 x 10 in)
A0 (841 x 1189 mm)	(8 x 13 in)
A4 Oversized(223 x 297 mm)	(9 x 11 in)
A4 Tab (225 x 297 mm)	(13 x 19.2 in) (330 x 488 mm)
SRA4 (225 x 320 mm)	(14.33 x 20.5 in) (364 x 521 mm)
SRA3 (320 x 450 mm)	(14.33 x 22.5 in) (364 x 572 mm)
SRA2 (450 x 640 mm)	(14.33 x 26.0 in) (364 x 660 mm)
ISO B7 (88 x 125 mm)	Custom Media
ISO B6 (125 x 176 mm)	

The Custom Media selection allows you to specify a custom paper size. When you select this item, the Custom Media window displays. Enter the paper size using points as the unit of measurement and click **OK**. Minimum and

maximum values are displayed on the Custom Media window.

Media specification indicator

This box indicates the defined specifications for the media used for this application.

Page side indicator

This box indicates the side of the page on which the currently selected information will print.

Output Resource Section

To display the Output Resource section on VI Design Pro window, use **View > Output** or the View Output button on the first tool bar.

The Output Resource section is also displayed when you select **Edit > Find in Project**, enter a search string and select Find. When VI Design Pro locates the specified string a list of all occurrences of the string appears in the Output Resource section of VI Design Pro window.

The results of the search operation provide the following information:

- The string for which the search was requested
- The name of the resource and the line of code in which each match is found
- The total number of occurrences found for the requested string

Double-clicking a specific occurrence of a found string in the Find In Project section will immediately locate the desired line within either the Input Sources section or the Resource Notebook section and highlight the found string in the corresponding source line of that section.

To close the Find In Project section, toggle the View Output button on the first tool bar, or deselect **View > Output**.

Status Bar

The status bar contains information about the current status of the VIPP® application, and contains two navigation buttons. The left and right Home buttons allow you to display the first or last tabs in the Resource Notebook.

The text displayed in the status bar changes depending upon the placement of the cursor, or the current activity of the program. In addition to the current status of the program, the status bar can contain expanded ToolTip information, information about the cursor location, etc.

Edit Modes of Operation

When using VI Design Pro window to work with the application, manipulate and modify the application information using any combination of the following interaction modes:

- Text Editor Mode
- Graphic Editor Mode
- Smart Editor Mode

TEXT EDITOR MODE

This capability allows you to place the cursor at any position in the Input Source section or the Resource Notebook section of VI Design Pro window and use the keyboard to change existing information, add new information, or delete information from the section. The changes you make display in the Graphical Display section of VI Design Pro window after you select the Refresh current page of application button or F5.

The text editor uses color to help you easily identify these VIPP® language elements:

- VIPP® commands appear in blue.
- DSC statements (that is, % % commands) appear in light green.
- Text strings within encapsulating parentheses ( ) appear in purple.
- Comments (%) and PostScript or VIPP® start-of-file (%!) commands appear in dark green.

GRAPHIC EDITOR MODE

This capability allows you to manipulate some of the application information using the display in the Graphical Display section of VI Design Pro's window, rather than using commands and keywords. Refer to the Graphical Display section for detailed information about the graphic editing capabilities of VI Design Pro.

Keep the following in mind when working in Graphic Editor mode:

- Currently, not all graphical elements are supported for manipulation in graphic editor mode.
- Some elements that are supported, are not functional under all circumstances. The following commands are currently supported, or partially supported, in graphic editor mode:

BEGINRPE and ENDRPE	DRAWRDR	SCALL
BEGINXPD and ENDXPD	ETA and ETS	SH
BTA and BTS	FILLOMR	SHC and SHc
DRAWB and DRAWBR	FROMLINE	SHJ and SHj
DRAWBAR	ICALL	SHMF, SHMf, and SHmf
DRAWBM and DRAWBRM	MOVETO	SHP
DRAWC	MOVEH	SHR
DRAWCRV	PDF417	SHT and SHt

DRAWPIE	RPEKEY	SHX
DRAWPOL		

Rotating graphic elements may cause the hotspot to shift slightly below the bottom edge of the display. Because a graphic element is rotated, the bottom edge may now display on the right or left side, or on the top. Clicking in this bottom edge area will activate the hotspot.

SMART EDITOR MODE

The right mouse button menu provides this capability. When you click the right mouse button in any text area of VI Design Pro window, you access the right mouse button menu. This menu provides access to all the Smart Editor functions that are available in VI Design Pro.

These menu options provide you with a quick and easy way to create or modify the VIPP® application, by specifying VIPP® command information or adding images to the VIPP® application with the easy-to- use windows that display. Refer to Smart Editor for further information.

The changes you make display in the Graphical Display section of VI Design Pro window after you select the Refresh current page of application button or F5.

Syntax and Formatting Considerations

Since VI Design Pro uses VIPP® and a PostScript RIP to process applications, use any valid VIPP® syntax or formatting when you manipulate the application using text editor mode. However, neither the Graphic editor mode nor the Smart Editor mode use VIPP® directly to verify the application source files.

Therefore, if you do not use the VIPP® syntax and formatting conventions as they are described in the *VIPP® Language Reference Manual*, you can be unable to use Smart Editor mode or graphic editor mode with that application. For example, the following example contains both VIPP® and PostScript formatting:

```
100 0 0 pop pop 200 MOVETO (Hello!) SH
```

Although this example does not cause problems when edited or executed in Text editor mode, it is problematic in both Smart Editor mode and graphic editor mode.

Note: VIPP® is a variable document composition and assembly language that uses a postfix notation syntax similar to PostScript. For this reason, the VIPP® interpreter provided by Xerox has been implemented using the PostScript language and is required to run inside a PostScript interpreter. Therefore, intermixing VIPP® and PostScript code can work in some circumstances. This kind of mixed code is not compliant with the VIPP® language specifications and will break any application or utility expecting a compliant VIPP® data stream. There is no assurance that such jobs will work correctly with future VIPP® releases. For this reason, mixed code is not supported and must be absolutely avoided.

However, PostScript code can be used in self-contained resources such as EPS files to be used as form or segments in a VIPP® job.

Control and Function Keys

When a project is open in VI Design Pro, some key combinations and function keys on the keyboard have specifically assigned functions.

The key combinations are listed here:

Ctrl+C

This key copies selected text in the Input Source or Resource Notebook section, or copy a selected object in the Graphical Display section. Copied text or objects are stored on the Clipboard.

Ctrl+V

This key pastes the contents of the Clipboard at the current cursor position in the Input Source, Resource Notebook, or Graphical Display section. The paste operation does not erase the Clipboard.

Ctrl+X

This key cuts selected text from the Input Source or Resource Notebook section, or removes a selected object from the Graphical Display section. Removed text or objects are stored on the Clipboard.

Ctrl+E

This key invokes a Choose Encoding to Use for Resource Display dialog. When the cursor is placed in the Input Source or Resource Notebook section and Ctrl+E is entered, the Choose Encoding Dialog for that resource is invoked. Use the dialog to change the encoding used by VI Design Pro to interpret the resource. For more information, refer to Encoding multi-byte fonts.

The function keys and their assigned functions are listed here:

F1

This function key accesses Help.

F3

This function key finds the next occurrence of a string defined in **Edit > Find > Find what**: in the currently selected text window only. Selectable text windows are the Resource Notebook, Input Source or Graphical Display windows.

F4

This function key inserts XY.

Shift-F4

This function key enters an Insert XY MOVETO.

F4 followed by F5

This function key inserts XY and executes the code.

Note: The F4 and F5 key commands are intended for use with the position tool on the vertical tool bar.

F5

This function key refreshes the currently active resource.

F9

This function key inserts the « character used to delimit VIPP® arithmetic sub-expressions.

F10

This function key inserts the » character used to delimit VIPP® arithmetic sub-expressions.

Other PC keyboard functions

The Page Up, Page Down, Home and End buttons on the PC keyboard can be used for movement through the application, and screens within VDP.

The « and » characters are used in arithmetic expressions because parentheses are used as string delimiter only. The F9 and F10 keys will have this effect only when the cursor is in a VIPP® source code window, or when the cursor is in a parameter entry field in a SmartEditor dialog.

The « and » characters must be used in pairs (just like parentheses) or a VI Compose error will be generated.

«123» or «VAR1» are legal in VIPP® and VI Design Pro, but are functionally equivalent to just 123 and VAR1. However, when using a string such as:

```
(/VAR1 (456) SETVAR)
VAR1 will produce "(456)", and «VAR1» will produce "456".
```

Using the Smart Editor

Using the Smart Editor content-sensitive right mouse button in the Input Source, Resource Notebook, or Graphical Display section of VI Design Pro's GUI pops up menus that provide access to various functions of VI Design Pro such as:

- Inserting or editing commands, properties, and project attributes
- Adding or deleting project resources
- Launching applications

Smart Editor menus also allow you to view lists of:

- DataBase Field Names
- 'SETVAR'ed Variables
- System Defined Variables
- XML Data Variables
- Date and Time Variables

SMART EDITOR MENU

When you right-click in any text area of VI Design Pro window, you access the Smart Editor menu also known as the Right Mouse Button menu. This menu provides access to all the Smart Editor functions that are available in VI Design Pro.

These menu options provide a quick and easy way to create or modify the VIPP® application by specifying VIPP® command information or adding images to the VIPP® application with the easy-to-use dialogs that display.

The first two options on the Smart Editor menu are Edit this Cmd or Keyword, and Insert the Following Commands, which are described in these sections:

- Editing a Selected Command or Keyword
- Insert the Following Commands

Descriptions of the Dialogs produced when other Smart Editor menu and submenu options selected are described in Smart Editor. These functions are described in the following sections of Smart Editor command dialogs:

- Fonts, Colors, and Variables
- Page Layout
- Page Marking
- RPE Items
- Output Device Control
- Print File Processing
- Cyclecopy Control
- Page Control
- PDF Interactive Features
- Custom Color Lists

Editing a Selected Command or Keyword

Use the **Smart Editor** to edit this Cmd or Keyword option to make changes to the current settings for the selected or highlighted command or keyword.

To make changes select the command or keyword from either the Input Source section or the Resource Notebook section of VI Design Pro's window, click the **right mouse button** to access the Smart Editor menu, then select the **Edit this Cmd or Keyword** option. You will be presented with one of the following scenarios:

- The Smart Editor produces a dialog on which to make changes to existing parameters
- The Smart Editor produces a window with a pointer to the help reference for the command
- The Smart Editor menu disappears when the selected command or keyword cannot be edited using this option

In addition, when placing the cursor on an element in the Graphical Display section of VI Design Pro's window and clicking the right mouse button, the Element menu displays. Use the Properties option on this menu to access the Smart Editor Edit dialog for the element.

Also double-click on an element in the Graphical Display section of VI Design Pro's window to access and make changes in the Smart Editor Edit dialog for that element. When this task is performed, the data that represents the element is located and highlighted in the Resource Notebook section of the window. If changes to the element are made using either of these methods, the changes are also made in the related code in the Resource Notebook section of the window.

In general, the dialogs used to edit a command or keyword contain the same fields that are displayed when the command or keyword is inserted. However, when a command is edited, the dialog will contain the actual values for the command, and when inserted it will contain default values. Each of the fields on these dialogs is described in detail in the related sections of Smart Editor.

When you right-click the color, pattern, or GEPkey of any VIPP® command that supports GEPkey or Color/Pattern, the Select GEPkey or Color/Pattern dialog appear. Use the dialog to edit the existing color, pattern or GEPKey settings.

When you right-click any color or pattern name in a VIPP® command that allows a color and/or pattern but does not allow a GEPKey, the Select a Colorkey dialog will appear. Use the dialog to edit existing color or pattern settings for the command.

Insert the Following Commands

The Insert the Following Commands option allows you to manually insert commands at the current cursor position.

BASIC COMMAND AND MENU CONTROL

Control the menu options and commands that can be accessed in the Smart Editor by using the SmartEditor SafeMode option at the bottom of the Smart Editor menu. This option toggles between SmartEditor Safe Mode On and SmartEditor SafeMode Off.

- When SafeMode is on, (default value) only the commands and command categories available to insert at the current cursor position are enabled. All other commands are disabled.
- When Safe Mode is turned off, all of the commands are enabled on the Smart Editor menu, regardless of whether they are functional based on the current cursor location.

All of the Smart Editor command dialogs contain a standard set of control buttons that have specific functions:

OK	Inserts the requested command at the current cursor position using the parameters you have specified on the Smart Editor dialog. If **OK** is not selected the new or edited command will not be inserted.
Help	Opens the *VIPP® Language Reference Manual* help option, which displays information about the VIPP® command being inserted by the Smart Editor.
Cancel	Cancels any changes you made to the Smart Editor dialog. The requested command will not be inserted nor will the selections or changes be saved.

VARIABLE RIGHT MOUSE BUTTON OPTIONS

The Smart Editor produces a variable right-mouse-button menu when you right-click the information in the Input Source, Resource Notebook, or Graphical Interface windows. Depending on the type of entry that is allowed in the field from which you access the variable right mouse button menu, the menu can include one or more of the following options:

- Database Field Names
- 'SETVAR'ed Variables
- System Defined Variables
- XML Data Variables
- Date and Time Variables

When the projects tab is selected in the Resource window, clicking the variable right mouse button displays one or more of these options:

- Add Resource to Project
- Remove Resource from Project
- Launch Associated Application
- Properties (project)
- Edit Project Attributes

Database Field Names

When you right-click and the variable right mouse button menu displays the DataBase Field Names option, selecting that option produces a list containing all database field names defined for the current job, along with sample field values in parentheses.

Depending on the placement of the cursor in the string field, the item that you select from this list either replaces the current field entry, or is appended to the field entry at the current cursor position.

- When the cursor is placed in front of the existing string in the field, or the entire string in the field is selected, the selected item replaces the current string text in the field.
- When placing the cursor at any other position in the field, for example, at the end of the current string, the selected item is added to the existing string text in the field at the current cursor position.

'SETVAR'ed Variables

When you right-click a field that accepts integer, real, or string values, or arrays of integer, real, or string values, the variable right mouse button menu display includes the SETVAR'ed Variables option. If you select the SETVAR'ed Variables option, it displays a list that contains all of the variables defined by SETVAR for the current job.

The item that you select from this list always replaces the current field entry.

System Defined Variables

When you right-click a field that accepts integer, real, or string values, or accepts arrays of integer, real, or string values, the variable right mouse button menu displays the System Defined Variables option. Selecting the System Defined Variables option displays a list that contains all of the system defined variables:

BPCOUNT	LSP	VPOS
COLW	PAGEH	YINIT
CPCOUNT	PAGEW	ZSPAGE
CURLINE	PPCOUNT	417VER
FRCOUNT	PRODUCT	DDGVER
FRLEFT	RPCOUNT	DMXVER
HDISP	RPLEFT	MAXVER
HPOS	SHEETH	QRCVER
HPOS2	SHEETW	SPIVER
LNCOUNT	SHPOS	VSIVER
LPCOUNT	SVPOS	VSMVER
LPINDEX	VDISP	XGFVER

When accessed from an XML job, these XML variables are also included in the system-defined variable list:

XMLATN	XMLPAR	XMLTAG
XMLATV	XMLPATH	XMLVAL
XMLDTH		

The item that you select from this list always replaces the current field entry.

XML Data Variables

When you right-click a Smart Editor Edit dialog while in an XML job, and the cursor is over a string field, the variable right mouse button menu displays the XML Data Variables option. Selecting theXML Data Variables option produces a Choose XML Variable dialog containing a list of the XML variables that can be used in the current job. Use the list to choose the XML variable you wish to insert.

Date and Time Variables

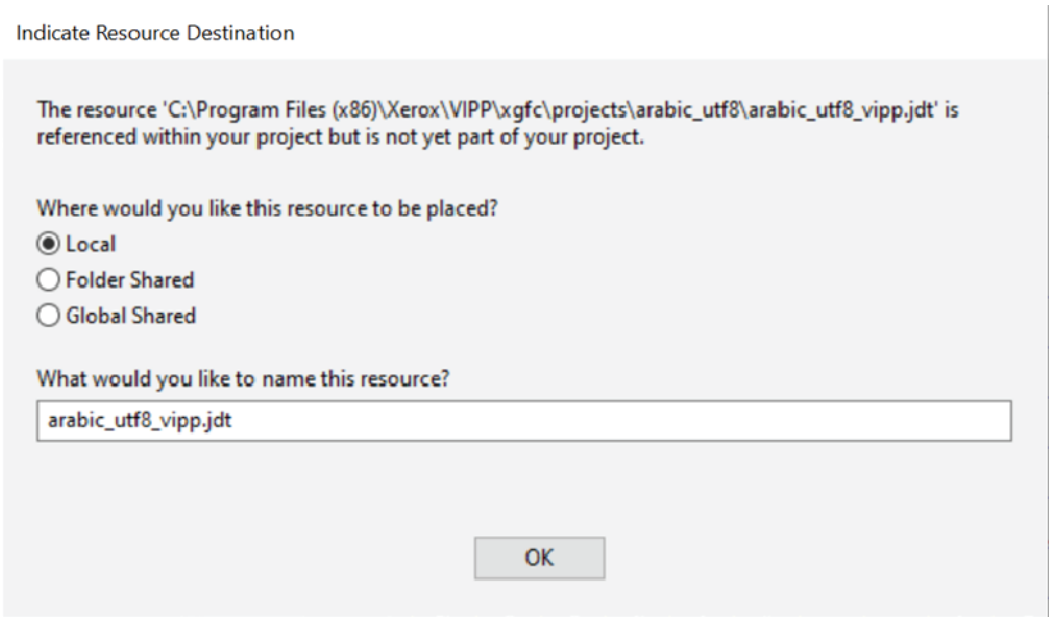
When you right-click on the String to Show field of an Insert or Edit Text dialog (SH commands), the variable right mouse button menu displays the Date and Time Variables option. Date and Time variables can be inserted into the string, and appended to the current String To Show with a space separator. Date and time variables are:

D_DWL	Day (Sunday, Monday, etc.)
D_DWS	Day (Sun, Mon, etc.)
D_DD	Date (01-31)
D_MOL	Month (January, February, etc.
D_MOS	Month (Jan, Feb, etc.)
D_MO	Month (01 - 12)
D_YY	Year (00-99)
D_YYYY	Year (1970 - 9999)
D_DOY	Day of Year (1-366)
T_HH	Hours (00-23)
T_HH2	Hours (1-12)
T_MM	Minutes (00-59)
T_SS	Seconds (00-59)
T_AMPM	AM/PM
T_TZN	Time Zone (PST, PDT, etc.)

Add Resource to Project

When you right-click any of the resource folders in the Resource Notebook, the variable right mouse button displays the Add Resource to Project option.

Use this option to browse for and select one or more resources for the project displayed in the Resource Notebook. When you select a resource to add to the project, the Indicate Resource Destination dialog is opened.



Use the Indicate Resource Destination dialog to select the location for the resource, and, if required, to rename the resource.

For information on the types of resources used in VI Projects, refer to *VIPP® Resources* in the *FreeFlow VI Compose User Guide*.

Resource Conversion

A feature of the add resource to project option is resource conversion. When a file in Adobe PDF or Word format is selected for addition to a project, VI Design Pro automatically converts the resource to a PostScript file as it adds it to the selected folder. The original file remains in its original location, VI Design Pro places a converted PostScript version of the file in the project folder (optionally, VI Design Pro also places the original resource in the project folder).

In order to successfully convert Word and Adobe PDF files you must have Word and Adobe Reader installed on the workstation. The feature uses the functions of those programs to convert the files.

Remove Resource from Project

When you right-click any resource in the Resource Notebook, the variable right mouse button displays the Remove Resource from Project option. Use this option to remove the selected resource or resources from the project. The files are removed from the project but are not deleted from the system.

Launch Associated Application

When you right-click a resource in the Resource Notebook, the variable right mouse button displays the Launch Associated Application option. Use this option to launch the program related to the resource. For example, choosing this option after right-clicking an Adobe PDF file will launch Adobe Reader.

Properties (project)

When you right-click a resource in the Resource Notebook, or an object in the Graphical Display section of VI Design Pro window, the variable right mouse button displays the Properties option. When this option is selected VI Design Pro produces a dialog containing property information about the resource's properties. Add or change the information in the dialog as necessary.

Edit Project Attributes

When you right-click any of the listed attributes in a project displayed in the Resource Notebook, the variable right mouse button displays the Edit Project Attributes option. When this option is selected VI Design Pro produces a dialog containing information about the project's attributes. Add or change the information in the dialog as necessary. The attributes for a project are:

- Title
- Author
- Creation date
- Copyright
- Version
- Keywords

Using the Element Right Mouse Button Menu

When placing the cursor on an element in the Graphical Display section and right-clicking, the element right mouse button menu displays. Use the options available from this menu to access the Edit a Show String Command window for the element, or to identify the corresponding source information for the element in the Resource Notebook section. Options on the element right mouse button are:

- Properties (element)
- View Source

PROPERTIES (ELEMENT)

The Properties option allows you to access the Smart Editor Edit window for the selected element. When you make changes to the element using the window that displays, the changes are made in the related code in the Resource Notebook section of the window.

For example, if you select and right-click a text string element in the Graphical Display section, the Element right mouse button menu appears.

If you then select Properties from the Element right mouse button menu, the Edit a Show String Command window appears.

The title and selectable options on this window vary with the command type selected. For detailed information about how to use this window, refer to Insert Text for the Smart Editor page marking commands.

VIEW SOURCE

The View Source option allows you to locate and highlight the VIPP® command that represents the selected element.

For example, if you select and right-click a graphic element in the Graphical Display section, the Element right mouse button menu appears. If you then select the View Source right mouse button menu, the source command is highlighted in the Resource Notebook section of VI Design Pro window.

Error Handling

If VI Design Pro detects a VIPP® or PostScript error in the VIPP® application page or resource just executed, an error window appears in the Graphical Display section.

Press **Help** to open the online *VIPP® Language Reference Manual*. The text relative to the error produced will appear in the right hand window.

An offending command can be difficult to locate, especially when the error occurs in a JDT or DBM file. Therefore, it may be more time effective for you to interpret the VIPP®/PostScript error and attempt to locate the offending command yourself.

Creating or Modifying Applications

This chapter contains:

This section contains information on how to create or modify the VIPP® applications using the VI Design Pro Wizard or Wizard Classic facilities. The section also provides information about opening raw XML, Database, or Line mode files using the VIPP® Cold Start method.

- Creating an XML job from an initial XML data file is a unique process described in VIPP® cold start. This process varies from the process used to create new native mode projects, referred to as form resource projects, database mode projects, or line mode projects using the VI Design Pro Wizards. However, after the XML job is created, it can be accessed and modified as you would any other VIPP® job.
- The VI Design Pro Wizard facility, described in detail in VI Design Pro Wizard overview, allows you to create a new native mode form resource, project, database mode project, or line mode project. This facility provides step-by-step windows to help a novice user provide the parameters needed to create a VIPP® job.
- The Wizard Classic facility, described in detail in Using Wizard Classic, allows you to create a new application or use an existing template. Additionally, you can change data file information, to the associated Data Base Master (DBM), or to the Job Descriptor Ticket (JDT) file. In addition, you can create a sample data file for use while testing the application, or associate a new DBM or JDT with a selected data file. This facility is intended for more knowledgeable or experienced VIPP® users.

When you create or modify any VIPP® application, use **File > Open** or **File > New**. Alternatively use the corresponding Open VIPP® application or project, and the New VIPP® application buttons on the toolbar. When you make the selection, VI Design Pro produces a series of windows containing information that guide you through the creation or modification process.

VIPP® Cold Start

VI Design Pro provides a mechanism to open raw XML data, line mode, and database mode files to create a VI Project, or otherwise amend the file using VI Design Pro. The instructions provided here are to create an XML mode VIPP® job, modify them as appropriate to create line or database mode jobs.

Use **File > Open** then browse for and select the **XML data file** to use for job submission. Click **Open**. VI Design Pro loads the file into the Input Source window, and produces VIPP® cold start instructions in the Graphical Display area.

Place the cursor at the beginning of the raw data file and right-click to produce the Smart Editor menu. Select the Smart Editor **Print File Processing > Start XML Mode Processing** option to open the STARTXML dialog.

Browse for the desired .xjt file, or use the default, then click **OK**. VI Design Pro inserts the command, an .xjt tab is created in the Resource Notebook section, and a graphical display of the file is presented in the Graphical Display section of VI Design Pro's window.

To save the file and create a new project press the Create a project from a currently loaded application button on the menu bar or select **File > Save as**. You will be prompted to save the file and the VI Project wizard will be invoked. Follow the on-screen instructions to create and save the project. For information on saving projects using this wizard, refer to VI Project wizard windows.

Once the project is created, the Resource Notebook section will contain a Project tab in addition to the .xjt tab. Graphic elements on the right side can be selected by the mouse and either double-clicked to bring up the Smart Editor for the element, or right-clicked to bring up a menu allowing you to invoke the Smart Editor for the element (Properties) or view the VIPP® source code for the element (View Source) in the same way as line mode and database mode jobs are edited and viewed.

VI Design Pro Wizard Overview

VI Design Pro Wizards use some or all of the following standard options on each window:

Back	Use to go back to the previous window
Next	Use to accept any changes and proceed to the next window
Cancel	Use to cancel the wizard. You will be prompted to verify this action
OK	Use to approve entries on the screen
Finish	Prompts the program to save the entries and complete the file generation process

You must select one of these options to proceed to the next logical window. To cancel the operation without saving any changes, click on the button at the top right corner of the wizard window.

When you open a new or existing project or file, or a file template, you access the data file for the application. The data file references all of the resources that are associated with the application. When you open a file or a file template, the information for the application (including the actual data file information and the related resources) displays in VI Design Pro's window.

Always make sure that any files you open are coded for use with VIPP®. For example, make sure that the forms you access are coded in VIPP® native mode. Forms that are encoded in EPS or TIFF cannot be accessed or edited.

To access the VI Design Pro Wizard, use **File > New** or the New VIPP® application button on the tool bar. This will display the Welcome to the VI Design Pro Wizard dialogs.

These are the selections available on the Welcome dialog:

Wizard Classic

Refer to Using Wizard Classic for detailed information on how to use this facility.

Always Use Wizard Classic

Enable the **Always Use Wizard Classic** box to always invoke Wizard Classic when you select either **File > New** or the New VIPP® application button. If you later want to access the Welcome to the VIPP® Wizard window, select Wizard on the New VIPP® Application window.

Next

Select **Next** to use the Wizard facility to create a new project. The VI Design Pro Wizard will be invoked whether or not the Always Use Wizard Classic box is selected.

Enable the button next to the type resource or project to create or modify. Refer to the following sections for more information about using the individual Wizards:

- Creating a Form Resource
- Creating a DataBase Mode Project
- Creating a Line Mode Project

VI Project Wizard Windows

Whenever you create a new VI Project using the VI Design Pro Wizard facility the VI Design Pro Wizard produces a series of windows containing this information:

- New VI Project field descriptions
- Optional Project Attributes Field Descriptions

The titles of the screens vary according to the mode in which the job is being created. For example, the title of the first screen will be one of these:

- VI Design Pro Form Resource Wizard
- VI Design Pro DataBase Mode Wizard
- VI Design Pro Line Mode Wizard

The screen title is the only variation between the s eries of windows. The windows and corresponding fields are described in the order they are produced.

NEW VI PROJECT FIELD DESCRIPTIONS

Entries in these fields will be used to define folder and project information for the new VI Project.

Folder Name

Enter the name of the folder in which to store the project. Use up to 32 characters for the folder name.

Project Name

Enter the name to assign to the project. This name will be used both as the directory name for the Project and as the name of the project file. The .vpf extension will be added automatically by VI Design Pro as the extension for the project file. Use up to 32 characters for the project name.
When specifying a folder or project name, constrain the name to 32 characters or less, and do not use a space or any of these characters:

/ : * ? \ " < > | ( ) [ ] { } ' ` ~ ! @ # $ % ^ & + = , ;

Note: Only one project file can be associated with a project directory. The Wizard displays a message box if an existing project name is specified in the Project Name field when you select Next. You will be asked to overwrite the existing project that is, delete the old project and replace it with a new project. If you respond Yes, a message box will appear asking you to confirm the action.

Setting Default Directories for the Project Wizard

To specify the default Folder and Project directory names that appear in the Project Wizard dialog when creating a VI Project, edit these entries in the vide.ini configuration file:

```
VPC_Defau1t_Fo1der_DirName=projects

VPC_Defau1t_Project_Di rName=myproject
```

These INI entries must follow the same restrictions placed by the operating system when naming directories, and the same limita tions currently set by the VI Projects specifications, for examples,no blank spaces, max 32 characters, and so on.

OPTIONAL PROJECT ATTRIBUTES FIELD DESCRIPTIONS

Entries in these fields will be used as part of the Project tree displayed on the Project tab in the Resource Notebook section of VI Design Pro's window once the project is created and loaded.

Author

Enter information about the author. Entries in this panel are limited to 512 characters.

Title

Enter the title of the project. Entries in this panel are limited to 512 characters.

Version

Enter the version information. Entries in this panel are limited to 512 characters.

Description

Enter a project description. Entries in this panel are limited to 512 characters.

Keywords

Optional keywords are used when searching, archiving, or indexing the project. Keywords must be separated by commas. Limit the entries to 512 characters or less.

Copyright

Use the boilerplate copyright information provided the Copyright field or add additional information. Limit the entries to 512 characters or less.

Use a Copyright File Template

Enable Use a Copyright File Template to import a file that contains boilerplate copyright information into the project attributes. This enables Browse, which allows you to select the file to import. The file size limitation is 512 bytes. Format checks are not performed for the file that is imported.

Create a VI Project from an Existing VIPP® Application

To create and load a new VI Project File from an existing VIPP® application open the existing VIPP® application using **File > Open**. Select the Create VI Project from currently loaded application button, or the **File > Create Project** option.

Refer to VI Project wizard windows for information on the first four screens produced when this option is selected.

RESOURCE PROPERTIES ENTRIES

Entries in these fields will define the resource properties for the project.

Name

Use this window to review the names of the resources that will be associated with the project, and to determine the scope of each resource. The scope of the resource defines its use as a Local, Folder- shared, or Global-shared resource. For more information about scope refer to *VI Projects* in the *FreeFlow VI Compose User Guide*.

Description

Entries in the Description panel are limited to 512 characters.
Once you are finished with the window, select Finish. VI Design Pro will then create the new project directory, copy in the appropriate files, and load the newly created project into VI Design Pro's window.

Creating a Form Resource

When you enable the Create a Form Resource button on the VI Design Pro Wizard Job Selection window, a series of VI Design Pro Form Resource Wizard windows are dis played. Refer to Form Resource Wizard field descriptions for descriptions of the Form Resource windows.

FORM RESOURCE WIZARD FIELD DESCRIPTIONS

Entries in these fields define the form resources for a VI Project.

Select/Create Folder and Project

Use this box to indicate whether to place the new form resource in a particular Folder and Project or in the standard template directory `\xgfc\formlib\`.
When you enable Select/Create Folder and Project the wizard allows you to define the new VI Project using the four wizard windows described in VI Project wizard windows. Refer to that section for information about the fields found on those screens.
If you do not enable Select/Create Folder and Project you will be required to complete destination information.

Destination

Select a destination from the drop-down list of available folders.

Graphical Units

Use this box to select the unit of measure for the form file; for example, DOT3 (1/300 inch). The value you select here will be used as the parameter for a SETUNIT command which will be inserted in the form file.

Orientation

Use this box to select the default page orientation to use for the form file. Options are as follows:

PORT (portrait)	Display the form in portrait mode.
LAND (landscape)	Display the form in landscape mode.
IPORT (inverse portrait)	Display the form in inverse portrait mode.
ILAND (inverse landscape)	Display the form in inverse landscape mode.

The value you select here will be used to insert a PORT, LAND, ILAND, or IPORT command in the form file.

Sample Font

This box provides a sample of the font selections. Refer to Font and Effects Preview/Select/Sample in the *VI Design Pro GUI* chapter of this document for information on changing the sample font viewed here.

Font Name

Select the name of the font to use.

Font Size

Select the size of the font to use. If the font size is not listed, manually enter the desired value. Integer and real numbers are allowed.

Font Color

Select the name of the text Colorkey to use.

Line Spacing

Enter the amount of space between each line of type. This is also known as the leading. Integer and real numbers are allowed.
The values you select or enter in these fields will be used as parameters for the SETFONT, SETTXC, and SETLSP commands which will be inserted in the form file.

Form Resource Filename

Enter the name of the form with the appropriate extension. When specifying a form name, constrain the name to 32 characters or less, and do not use a space or any of these characters:

/ : * ? \ " < > | ( ) [ ] { } ' ` ~ ! @ # $ % ^ & + = , ;

Selected Settings

Use this window to review the values you specified for the form.
To leave values unchanged, select Finish. VI Design Pro will create the form in the specified Destination directory and then display VI Design Pro's window with the associated information. Use VI Design Pro's window to add information and to make changes to the form.
To change one or more values, use Back to return to a previous window.

Creating a DataBase Mode Project

When you enable the Create a DataBase Mode Project button on the VI Design Pro Wizard Job Selection window the wizard allows you to define the new VI Project using the four windows described in VI Project wizard windows. Refer to that section for information about the fields found on those screens.

When you complete the common windows the wizard will produce a series of DataBase Mode Wizard windows. The field descriptions in DataBase Mode Wizard initial field descriptions are common to all Database mode projects.

DATABASE MODE WIZARD INITIAL FIELD DESCRIPTIONS

When you begin any DataBase mode project, the fields described below are produced by the DataBase Mode Wizard. The information you supply here will be used for all DataBase Mode projects.

At the end of this wizard you will be presented with these options:

- Generate a sample data file
- Acquire sample data from a file
- Acquire sample data from a database

Each one of these selections produces a unique wizard that will help you complete the project, and are described in detail in their respective sections.

The fields common to each DataBase Mode project are:

Graphical Units

Use this box to select the unit of measure; for example, DOT3 (1/300 inch). The value you select here will be used as the parameter for a SETUNIT command which will be inserted in the file.

Orientation

Select the default page orientation for the master file:

PORT (portrait)	Display the project output in portrait mode.
LAND (landscape)	Display the project output in landscape mode.
IPORT (inverse portrait)	Display the project output in inverse portrait mode.
ILAND (inverse landscape)	Display the project output in inverse landscape mode.

The value you select here will be used to insert a PORT, LAND, ILAND, or IPORT command in the file.

Duplex Mode

Select the default duplex print mode for the master file:

None	output the application in simplex mode.
Regular Duplex	output the application in regular duplex mode.
Tumble Duplex	output the application in tumble duplex mode. This option rotates the even page (back page) images.

Media Size

Select the paper size on which to print the job (for example, A4). When you select Custom another window will appear on which paper width and height can be entered using the previously selected graphical units of measure. The valid range for custom page width and height depends on the previously entered graphical units.

Media Color

Select the paper color to use (for example, goldenrod). If the paper color is not on the list, enter the appropriate information in this field.

Media Type

Select the type of paper stock to use (for example, Drilled). If the type is not on the list, enter the appropriate information in this field.

Media Weight

Specify the weight of the paper stock to use. For example, enter a value of 60 to indicate 60 lb. stock. The valid range for this value is 1 to 500.

Sample Font

This box provides a sample of the font selections. Refer to Font and Effects Preview/Select/Sample in the *VI Design Pro GUI* chapter of this document for information on changing the sample font viewed here.

Font Name

Select the name of the font to use.

Font Size

Select the size of the font to use. If the font size is not listed, manually enter the desired value. Integer and real numbers are allowed.

Font Color

Select the name of the text Colorkey to use.

Line Spacing

Enter the amount of space between each line of type. This is also known as the leading. Integer and real numbers are allowed.
The values you select or enter here will be used as parameters for the SETFONT, SETTXC, and SETLSP commands, which will be inserted in the file.

Form Resource

Select Browse to browse the directories and locate the form file to be used. Once you specify a file, the Preview button will become accessible if it is available for this form.

Preview

Displays the Form Resource Preview window. The Landscape button on this window toggles alternately with a Portrait button so the form can be viewed in either mode.

Data Base Master Filename

Specify the master file name to use. The name should have an extension of .dbm.

Selected Settings

Provides a list of settings you have selected up to this point. To change any of the entries, use Back to return to a previous window.

SAMPLE DATA FILE

When the Sample Data File wizard opens select the method to use to create a sample data file for the project.

Choose from these options:

Generate Sample Data File

Allows you to create a sample data file that can be used during the design phase of the project.

Refer to Generate a sample data file for the series of windows that will appear next when you select this option.

Acquire Sample Data From a File

Allows you to select an existing data file to use in the design phase of the project.

Refer to Acquire sample data from a file for the series of windows that will appear next when you select this option.

Acquire Sample Data From a Database

Allows you to create a sample file from data extracted from a database. The database must be set up as an Open Database connectivity (ODBC) data source. For information about ODBC refer to the documentation about the database system software, or the Windows ODBC Data Source Administrator.

Refer to Acquire sample data from a database for the series of windows that will appear next when you select this option.

Generate a Sample Data File

When the Generate Sample Data File option is selected a series of Sample Data File Parameters windows appear. Enter the values for each of these fields:

Number of Sample Data Records

Use to indicate the number of data records (lines) in the data file. Specify a value from 1 to 500.

Number of Sample Data Fields

Use to indicate the number of data fields for the DataBase Mode data file. The valid range is from 1 to 1200.

Data Field Delimiter

Use to enter the default single-character field delimiter character for the DataBase Mode data file. This is the character that is used to separate fields in the data file; for example a colon (:) or a dash (-). You must enter a value in this field. However, forward slash (/), backslash (\), or a blank space cannot be entered. A two-digit character hex value in the range 21...FF or the tab hex value of 09 can be entered in this field.
This information is used to generate the SETDBSEP command that is located at the beginning of the data file.

Note: Do not place the cursor in this field and press Tab to specify a tab character, the tab hex value must be entered as a two-digit number 09 rather than 9. If you enter a character hex value that is not in the range 21 ...FF, an error occurs.

Use Record Number

Allows the data file to contain each data record number.

Use Data Field Number

Allows the data file to contain each data field number.

Use Custom Data Pattern

Specifies a custom data pattern.

Field Names

Contains the default field names for the fields that will be included in the first record of the data file.

New Field Name

Use to change or rename the selected Field Name.

Sample Data Filename

Specify the name to use for the sample data file. The name should have an extension of .dbf.

Selected Settings

Use this window to review the values you specified.
To leave values unchanged select Finish. VI Design Pro will create the DataBase Mode master file and the sample data file in the locations that you specified and then display VI Design Pro's window with the associated information. Use VI Design Pro's window to add information and to make changes to the files.
To change one or more values use Back to return to a previous window.

Acquire Sample Data from a File

When the Acquire Sample Data from a File option is selected a series of windows appear on which information about the source data file can be specified.

Sample data file field selections are described here:

Sample Data Source File

You must use Browse to locate the file to use.

Data Field Delimiter

Use this field to indicate the default single-character field delimiter character for the DataBase Mode data file. This is the character that is used to separate fields in the data file; for example a colon (:) or a dash (-). You must enter a value in this field. However, a forward slash (/), backslash (\), or a blank space cannot be entered.
A two-digit character hex value in the range 21 ...FF or the tab hex value of 09 can be entered in this field. In cases where a one field per record data file will be generated, or is loaded, valid entries also include the special hex values for carriage return (0D), line feed (0A), and NULL (00), which allows each line of data to be taken as a single field. However, if more than one field per record has already been declared in the data file, the special hex-value field delimiters are not valid and may result in a VIPP® or PostScript error if used.
This information is used to generate the SETDBSEP command that is located at the beginning of the data file.

Note: Do not place the cursor in this field and press Tab to specify a tab character, enter the tab hex value as a two-digit number 09 rather than 9. If you enter a character hex value that is not in the range 21...FF, an error occurs.

Use the second window to indicate whether the first row of the data file contains the necessary field information:

Yes, First Row contains all Field Names

Causes the wizard to proceed to the Generate a Data Submission File window.

No, First Row does NOT contain Field Names

Displays the Field Names window for the sample file.

The third window contains the default field names for the fields that will be included in the first record of the data file:

New Field Name

Use to change a default field name.

Create a Data Submission File

Enable this box to create a data submission file that references the sample data source file.

Strip Leading and Trailing Blanks

Use to strip the leading and trailing blanks in the delimited fields. Strip Leading and Trailing Quotes.
Use to strip the first and last quotes from the delimited fields.

Sample Data Filename

Specify the name to use for the sample data file. The name should have an extension of .dbf.

Selected Settings

Use this window to review the values you have specified.

To leave values unchanged select Finish. VI Design Pro will create the DataBase Mode master file and the sample data file in the locations that you specified and then display VI Design Pro's window with the associated information. Use VI Design Pro's window to add information and to make changes to the files.
To change one or more values use Back to return to a previous window.

Acquire Sample Data from a Database

VI Design Pro allows you to create a sample file from data extracted from a database. The database must be connected to at least one Open Database Connectivity (ODBC) data source.

- ODBC is a software layer that allows access to many different types of database management systems (DBMSs) such as Oracle, MS Access, and SQL Server. In order for ODBC to be used with a particular DBMS, there must be an ODBC driver installed on the system for that DBMS. Drivers exist for most commonly used relational DBMSs as well as non-relational DBMSs such as Excel and plain files.
- An ODBC data source represents a particular connection to an ODBC driver and a DBMS. If the database does not have any data sources that connect to it, use the Windows ODBC Data Source Administrator to set a data source up.
- When the Acquire Sample Data from a Database option is selected a series of windows app ear on which a data source, and data from that source for output to a sample file, can be selected.

ODBC Data Source field selections are described here:

Select the data source from which to extract data.

The list of data sources contains the following information for each source.

Name	The name of the data source.
Type	Either System, User, or File. System data sources are available to anyone who logs into the system. User data sources are available only to the user who created them. Data source information for a File data source is stored in a file. The data source list on this window includes file data sources whose files are in a standard Windows folder.
DBMS	The database management system for the data source.
Description	Descriptive text appears when available.

Browse

Use this button to locate a file data source that is not in the standard Windows folder.

Data Source Admin

Use this button to invoke the Windows ODBC Data Source Administrator, which allows you to add, modify, or delete data sources.
If the data source requires a log on, the Enter User Name and Password screen will display.

User Name

Enter the user name. This field may not be required for all databases. Check with the database administrator if you are not sure.

Password

Enter the password. This field may not be required for all databases. Check with the database administrator if you are not sure.

Tables

Select one table in the selected data source from which to extract data.
The table can be one of these four types:

- Table
- View
- Alias
- Synonym

A View is a virtual table that is the result set of a stored query, and can be accessed as though it were a real table. An Alias or Synonym is simply another name for a table.
To select data from more than one table, create a view that combines data from multiple tables. Extract data from that view by selecting it in the table list. Creating a view is outside the scope of VI Design Pro; one way to do this is to use the CREATE VIEW command in Structured Query Language (SQL).

View Table

Use this button to display a grid containing the data in the selected table. This grid can also be displayed by double-clicking the table in the list.
The Select Output Columns window allows you to choose the columns (fields) in the selected table that will appear in the sample file.

Table Columns

A list of all columns in the selected table.

Output Columns

A list of the fields that will appear in the sample file.
To put columns into the Output Columns list, select one or more columns in the Table Columns list and press **>**.
The columns will be added below any currently selected item in the output list. Alternatively, double-click an item in the Table Columns list to add it to the Output Columns list.
To put all items in the Table Columns list into the Output Columns list click **>>**.
To remove a column from the Output Columns list or double-click the column name, or select it and press **<**.
To remove all items in the Output Columns list click **<<**.
Use the up or down arrows to move a selected item up or down in the Output Column list. This controls the order in which the columns are output to the sample file.

View Table

Use this button to produce a menu containing the following options:

View All Columns	displays a grid containing the entire table.
View Selected Columns	displays a grid containing only the columns in the Output Columns list.

Include Column Names in Output

This box is checked by default. Deselect this box if you do not want the column names written to the output file as the first row of data.

Note: To change names of columns included in the output edit the sample file or the sample data source file, within VI Design Pro, after leaving the Wizard.

The Specify Row Selection Criteria window allows you to determine which rows of the selected table will be output to the sample file.

Limit the rows selected for the sample file in one or both of these ways:

- Enter one or more selection criteria
- Specify the maximum number of rows to select

Row Selection Criteria

Each criterion is made up of four fields ordered from left to right:

Not

Check this box to negate the meaning of the criterion. See examples below.

Column Selector

Select the column to compare. The drop-down box contains a list of all columns in the selected table, not just the columns selected for output.

Note: To clear all fields in a criterion, select Clear from the Column Selector field.

Operator Selector

Use one of the operators listed here for the comparison:

OPERATOR	COLUMN DATA TYPE	MEANING
=	number	is equal to
date/time	is the same date/time as	
text	is the same as	
<	number	is less than
date/time	is earlier than	
text	precedes alphabetically	
<=	number	is less than or equal to
date/time	is earlier than or the same date/time as	
text	precedes alphabetically or is the same as	
>	number	is greater than
date/time	is later than	
text	follows alphabetically	
>=	number	is greater than or equal to
date/time	is later than or the same date/time as	

OPERATOR	COLUMN DATA TYPE	MEANING
	follows alphabetically or is the same as	
begins with	number	the text representation begins with (does not apply to floating point numbers)
date/time	N/A	
text	begins with	
contains	number	the text representation contains (does not apply to floating point numbers)
date/time	N/A	
text	begins with	
ends with	number	the text representation contains (does not apply to floating point numbers)
date/time	N/A	
text	ends with	
is null	any column that can have NULL values	has a NULL value in the database

Note: When a column has some rows with NULL values, those rows will only be selected when the is null operator is selected.

Value Entry

Enter a value to compare the column against. When is null is the selected operator the Value Entry field is grayed out and cannot be used. When the selected column contains non-text data, guide text will appear above this data entry field. The guide text specifies the category of the value to be entered:

- number
- date
- time
- date and (optional) time
- 0 or 1

All non-text values must follow one of several formats. To see a description of the allowable formats for a non-text column, select the column in the Column Selector, then move the cursor to the Value Entry (last) field. Allowable formats will be displayed as a tool tip.

Allowable formats are determined by the Regional Settings for the operating system. Refer to the operating system documentation for help changing the regional settings on the computer. The various elements determined by the regional settings are:

- decimal point character
- thousands separator
- currency symbol
- currency decimal point character
- date order
- date separator
- time separator
- 12- or 24-hour format
- AM and PM designators

And/Or

When specifying multiple rows of criteria select one of these buttons between adjacent criteria.

SELECTION	MEANING
All And	All criteria must be met for a row to be selected
All Or"	At least one criterion must be met for a row to be selected
Combination	Adjacent criteria connected by and are grouped together, the resulting groups are connected by or

This table provides examples of selection criteria:

NOT	COLUMN	OPERATOR	VALUE
To select all rows for which Birthdate is later than 1/15/1961, enter:			
	Birthdate	>	1/15/1961
To select all rows for which MailingListID is not 5, enter:			
X	MailingListID	=	5
To select all rows for which DuesAmount is less than or equal to $10.00, enter:			
	DuesAmount	< =	$10[3]
To select all rows for which Photograph is not null, enter:			
X	Photograph	is null	

3. The currency symbol is always optional

NOT	COLUMN	OPERATOR	VALUE
To select all rows for which Notes contains the text "diagram", enter:			
	Notes	contains	diagram
To select all rows for which MailingListID is either 6 or 8, enter:			
	MailingListID	=	6
Or			
	MailingListID	=	8
To select all rows for which Birthdate is in the year 1953, enter:			
	Birthdate	>=	1/1/1953
And			
	Birthdate	<	1/1/1954
To select all rows for which MailingListID is 42, or Birthdate falls between 1974 and 1978, enter:			
	MailingLIstID	=	42
Or			
	Birthdate	>=	1/1/1974
And			
	Birthdate	<	1/1/1979

Maximum Number of Rows to Select

Enter a value in this field to specify a maximum number of rows to select. When row selection criteria is not specified, the output will consist of the number of rows specified here, beginning at the top of the table.

Set Default

The system default for the maximum number of rows to select is 10. To change the default, enter a value in the maximum number field then click this button.

Date-Time Columns

The Date-Time Columns list shows columns that contain both date and time information in the database. Use the boxes to select whether to output the date, time, or both. When the window is first displayed the Show Date box will be checked. Show Time will be checked for a column if there is at least one row in the database with a

non-zero time in that column.

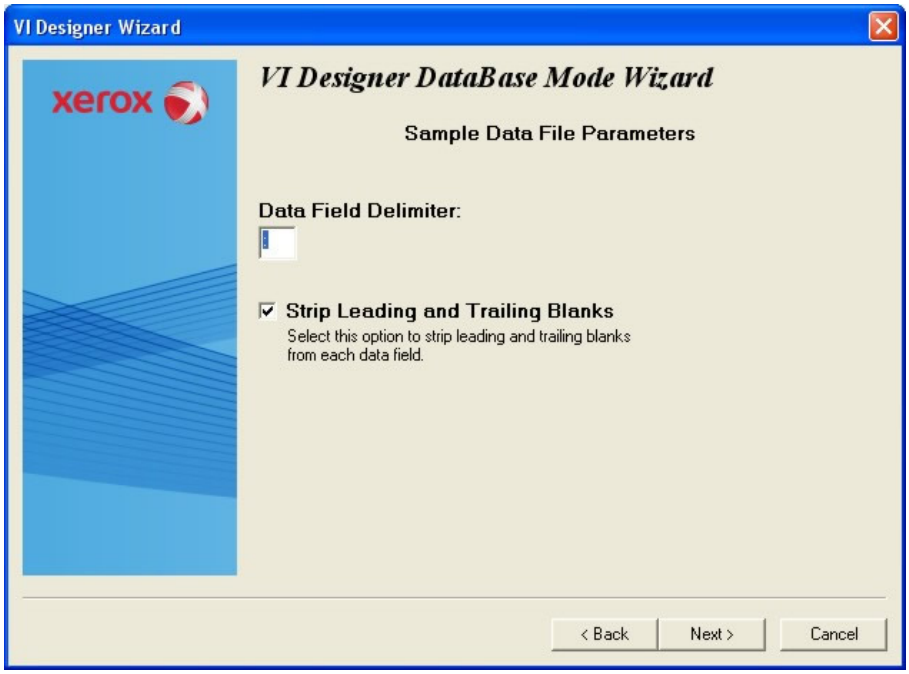
Numeric Columns

The Numeric Columns list shows columns that are stored as numbers in the database. If you check Currency? for a column, values for that column are output to the sample file with a currency symbol and using the currency format settings; refer to Output Data Formatting. The Digits After Decimal field allows you to override standard settings for currency and non-currency numbers.

When the window is first displayed, Currency? is set according to a flag in the database, which may not be available for all databases. If Currency? is checked the Digits After Decimal value is set to the standard setting for currency, otherwise the standard setting for non-currency is used.

View Formatted Output Data

Click this button to display a grid with the output data formatted according to the output format settings and the per-column settings set on this window.



Data Field Delimiter

Use this field to enter the delimiter character that will separate field values in the output file. You must enter a value in this field. A forward slash (/), backslash (\), or a blank space cannot be entered. The character may also be entered as a two-digit hexadecimal value in the range 21 ... FF, or 09 for a tab character.

If you enter a character that occurs in one or more of the data fields, the field values will be enclosed in double quotes in the output file. VI Design Pro will notify you if this is required.

In addition to separating the data fields, the delimiter character also appears in the SETDBSEP command near the beginning of the sample file.

Note: To specify a tab character, you must enter the hexadecimal value 09 (not 9) rather than pressing Tab.

Strip Leading and Trailing Blanks

Deselect this box to put a BSTRIP_off line in the sample file. The BSTRIP_off command tells VIPP® not to strip

leading and trailing blanks from field values. The field values written to the sample file are not affected.

Create a Data Submission File

Check this box to create a data submission file that references the sample data source file. If this box is checked a window containing two fields (Sample Data Filename and Sample Data Source File) will follow. If the box is not checked a screen containing only the Sample Data Filename window will follow.

Sample Data Filename

Specify the name to use for the sample data file (if Create a Data Submission File was checked on the previous window the sample file will be created as a data submission file referencing the source file specified in the field below). The name should have an extension of .dbf.

Sample Data Source File

Specify the name to use for the source data file that will contain the data selected from the database. This field will not appear if you have not opted to create a data submission file.

Selected Settings

Use this window to review the values you have specified.

View Output Data

Use this button to view the selected data that will be output to the Sample File in the format in which it will be written.

To leave values unchanged select Finish. VI Design Pro will create the DataBase Mode master file and the sample data file in the locations that you specified and then display VI Design Pro's window with the associated information. If you opted to create a data submission file a data source file is also created. Use VI Design Pro's window to add information and to make changes to the files.

To change one or more values use Back to return to a previous window.

Output Data Formatting

The following tables show variables that can be set in the vide.ini file to control how the data being extracted from a database is formatted when it is output to the sample file. Except for the Boolean settings, all of these default to the Windows regional settings of the system running VI Design Pro.

Set one or more of the following variables to override the regional settings.

These settings affect all columns of output data. There are additional settings that can be set on a per- column basis, for information refer to Date-Time Columns or Numeric Columns.

DATE SETTINGS	DESCRIPTION
Wizard.ODBC.Date.Separator	Separator character between month, day, and year
Wizard.ODBC.Date.Format	0- for month-day-year 1- for day-month-year 2- for year-month-day
Wizard.ODBC.Date.FourDigitYear	1- for 4-digit year 0- for 2-digit year
Wizard.ODBC.Date.DayLeadingZero	1- for leading zero for the day 0- for no leading zero for the day
Wizard.ODBC.Date.MonthLeadingZero	1- for leading zero for the month 0- for no leading zero for the month

TIME SETTINGS	DESCRIPTION
Wizard.ODBC.Time.Separator	Separator character between hours, minutes, and seconds
Wizard.ODBC.Time.Format24	1- for 24-hour format 0- for 12-hour AM/PM format
Wizard.ODBC.Time.Am	String to use for the AM indicator
Wizard.ODBC.Time.Pm	String to use for the PM indicator
Wizard.ODBC.Time.ShowSeconds	1- to include seconds in the time 0- to show hours and minutes only
Wizard.ODBC.Time.HourLeadingZero	1- for leading zero for the hours 0- for no leading zero for the hours

NUMBER SETTINGS	DESCRIPTION
Wizard.ODBC.Number.DecimalChar	The decimal character
Wizard.ODBC.Number.DigitsAfterDecimal	The number of digits to display after the decimal character
Wizard.ODBC.Number.GroupingChar	The grouping character (thousands separator)

NUMBER SETTINGS	DESCRIPTION
Wizard.ODBC.Number.GroupingFormat	0- for 123456789 1- for 123,456,789 2- for 12,34,56,789
Wizard.ODBC.Number.NegativeParens	1- to use parentheses to indicate a negative number, e.g. (1.1) 0- to use the negative sign to indicate negative numbers
Wizard.ODBC.Number.NegativeSign	The character to use for the negative sign (also used for currency values)
Wizard.ODBC.Number.NegativePrecedesVal	1- if the negative sign precedes the number 0- if the negative sign follows the number
Wizard.ODBC.Number.NegativeSpace	1- if there is a space between the negative sign and the number 0- if there is no space
Wizard.ODBC.Number.LeadingZero	1- to display a leading zero before decimal values with an absolute value less than 1.0, e.g. 0.7 0- to not display a leading zero, e.g. .7

CURRENCY SETTINGS	DESCRIPTION
Wizard.ODBC.Currency.Symbol	The currency symbol
Wizard.ODBC.Currency.SymbolPrecedesPosVal	1- if the currency symbol precedes positive values 0- if the currency symbol follows positive values
Wizard.ODBC.Currency.SymbolPrecedesNegVal	1- if the currency symbol precedes negative values 0- if the currency symbol follows negative values
Wizard.ODBC.Currency.SymbolSpacePosVal	1- if there is a space between the currency symbol and positive values 0- if there is no space
Wizard.ODBC.Currency.SymbolSpaceNegVal	1- if there is a space between the currency symbol and negative values 0- if there is no space
Wizard.ODBC.Currency.DecimalChar	The decimal character for currency values
Wizard.ODBC.Currency.DigitsAfterDecimal	The number of digits to display after the decimal character
Wizard.ODBC.Currency.GroupingChar	The grouping character (thousands separator)
Wizard.ODBC.Currency.GroupingFormat	0- for 123456789 1- for 123,456,789

CURRENCY SETTINGS	DESCRIPTION
	2- for 12,34,56,789
Wizard.ODBC.Currency.NegativeParens	1- to use parentheses to indicate a negative currency values, e.g. (1.1) 0- to use the negative sign to indicate negative currency values
Wizard.ODBC.Currency.NegativePrecedesVal	1- if the negative sign precedes the value 0- if the negative sign follows the value
Wizard.ODBC.Currency.NegativePrecedesSymbol	1- if the negative sign precedes the currency symbol 0- if the negative sign follows the currency symbol

BOOLEAN SETTINGS	DESCRIPTION
Wizard.ODBC.Boolean.TrueString	The string to display for true values (defaults to 1)
Wizard.ODBC.Boolean.FalseString	The string to display for false values (defaults to 0)

Creating a Line Mode Project

When you enable the Create a Line Mode Project button on the VI Design Pro Wizard Job Selection window, the wizard allows definition of the new VI Project using the four windows described in VI Project wizard windows. Refer to that section for information about the fields found on those screens.

When you complete the common windows the wizard will produce a series of Line Mode Wizard windows containing these fields:

Graphical Units

Use this box to select the unit of measure; for example, DOT3 (1/300 inch). The value you select here will be used as the parameter for a SETUNIT command which will be inserted in the file.

Orientation

Select the default page orientation for the master file:

PORT (portrait)	Display the project output in portrait mode.
LAND (landscape)	Display the project output in landscape mode.
IPORT (inverse portrait)	Display the project output in inverse portrait mode.
ILAND (inverse landscape)	Display the project output in inverse landscape mode.

The value you select here will be used to insert a PORT, LAND, ILAND, or IPORT command in the form file.

Duplex Mode

Select the default duplex print mode for the master file:

None	output the application in simplex mode.
Regular Duplex	output the application in regular duplex mode.
Tumble Duplex	output the application in tumble duplex mode. This option rotates the even page (back page) images.

Media Size

Select the paper size on which to print the job (for example, A4). If you select Custom another window will appear on which paper width and height can be entered. The valid range for custom page width and height depends on the previously entered graphical units.

Media Color

Select the paper color to use (for example, goldenrod). If the paper color is not on the list, enter the appropriate information in this field.

Media Type

Select the type of paper stock to use (for example, Drilled). If the type is not on the list, enter the appropriate information in this field.

Media Weight

Specify the weight of the paper stock to use. For example, enter a value of 60 to indicate 60 lb. stock. The valid

range is 1 to 500.

Sample Font

This box provides a sample of the font selections. Refer to Font and Effects Preview/Select/Sample in the *VI Design Pro GUI* chapter of this document for information on changing the sample font viewed here.

Font Name

Select the name of the font to use.

Font Size

Select the size of the font to use. If the font size is not listed, manually enter the desired value. Integer and real numbers are allowed.

Font Color

Select the name of the text Colorkey to use.

Line Spacing

Enter the amount of space between each line of type. This is also known as the leading. Integer and real numbers are allowed.
The values you select or enter here will be used as parameters for the SETFONT, SETTXC, and SETLSP commands which will be inserted in the file.

Form Resource

Select Browse to browse the directories and locate the form file to be used. Once you specify a file, the Preview button will become accessible if it is available for this form.

Preview

Displays the Form Resource Preview window. The Landscape button on this window toggles alternately with a Portrait button so the form can be viewed in either mode.

Use Record Processing Entry (RPE)

Enables use of a Record Processing Entry (RPE) library definition in the Job Descriptor Ticket (JDT) file.

Char/Lines and Lines/Page

Allows you to specify the default values for character per line and line per page information for the JDT. When you check this box, the Characters per Line and Lines per Page boxes are enabled.

Characters per Line

Specify the default value for the maximum number of characters per line. Valid values are 1 to 255.

Lines per Page

Specify the default for the maximum number of lines per page. Valid values are 1 to 255.

Job Descriptor Ticket Filename

Specify the name to use. The name should have an extension of .jdt.

Selected Settings

Provides a list of settings you have selected up to this point. To change any of the other entries, use Back to

return to a previous window.

Generate Sample Data file

Allows creation of a sample data file to be used during the design phase of the project.
Refer to Generating a sample data file for the series of windows that will appear next when you select this option.

Acquire Sample Data From a File

Allows selection of an existing file to use during the design phase of the project.
Refer to Acquiring sample data from a file for the series of windows that will appear next when you select this option.

GENERATING A SAMPLE DATA FILE

When the Generate Sample Data File option is selected a series of Sample Data File Parameters windows on which these fields appear:

Characters per Line

Indicates the default for the maximum number of characters per line to use for the line mode data file. The valid range is from 1 to 255. This parameter will not be accessible if it was previously delimited for the JDT file.

Lines per Page

Indicates the default for the maximum number of lines per page to use for the line mode data file. The valid range is from 1 to 255.This parameter will not be accessible if it was previously delimited for the JDT file.

Number of Pages

Indicates the default number of pages to use for the line mode data file. The valid range is from 1 to 100.

Use Line Number

Allows line numbers in the data pattern.

Use Page Number

Allows page numbers in the data pattern.

Use Custom Data Pattern

Allows you to specify a custom data pattern

Sample Data Filename

Specify the name to use for the sample data file. The name should have an extension of .lm.

Selected Settings

Use this window to review the settings you have selected. To leave values unchanged select Finish. VI Design Pro creates the JDT master file and the sample data file in the specified locations, then displays VI Design Pro's window with the associated information. Next, use VI Design Pro's window to add information and to make changes to the files.
To change one or more values use Back to return to a previous window.

ACQUIRING SAMPLE DATA FROM A FILE

When the Acquire Sample Data from a File option is selected a series of windows appear on which to specify source data file information in these fields:

Sample Data Source File

The Browse button must be used to locate the file.

Create a Data Submission File

Enables creation of a data submission file that references the sample data source file.

Sample Data Filename

Specify the name to use for the sample data file. The name should have an extension of .lm.

Selected Settings

Use this screen to review the settings for this Line Mode resource.

To leave values unchanged select Finish. VI Design Pro will create the DataBase Mode master file and the sample data file in the locations that you specified and then display VI Design Pro's window with the associated information. Use VI Design Pro's window to add information and to make changes to the files.

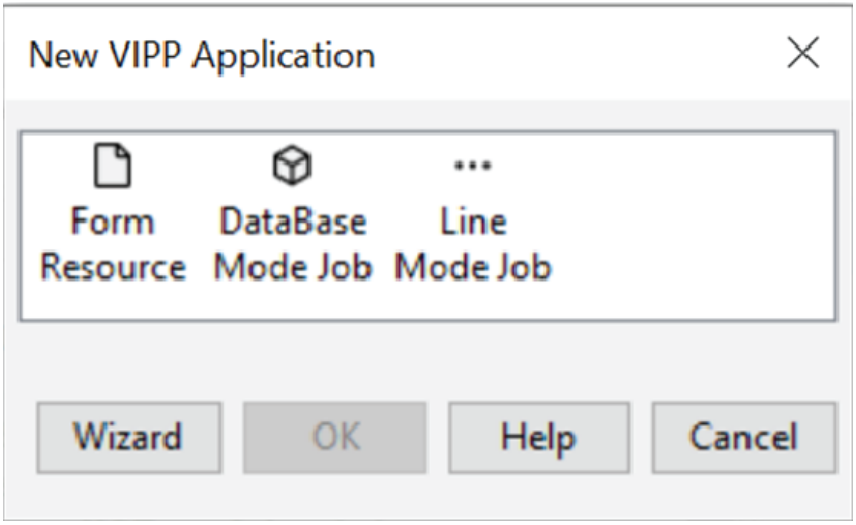
To change one or more values use Back to return to a previous window.

Using Wizard Classic

To access the Wizard Classic facility, use **File > New** or the New VIPP® application button on the tool bar. This will display the Welcome to the VI Design Pro Wizard window, from which to make these selections:

Wizard Classic

Select the **Wizard Classic** button to display the New VIPP Application window.



On the New VIPP® Application window, select the type of Wizard Classic to use in either of these ways:

- By double-clicking with the left mouse button on an icon
- By clicking with the left mouse button once on one of the icons and then selecting OK.

Refer to the following sections for more information about using an individual Wizard Classic:

- Using Wizard Classic
- Using Wizard Classic to Create Database Mode Jobs
- Using Wizard Classic to Create Line Mode Applications

Always Use Wizard Classic

Enable **Always Use Wizard Classic** to invoke Wizard Classic when you select either **File > New** or the New VIPP® application button on the tool bar. If you later want to access the Welcome to the VI Design Pro Wizard window, select Wizard on the New VIPP® Application window.

USING WIZARD CLASSIC TO CREATE FORM RESOURCE TEMPLATES

This section describes how to create new VIPP® forms or access existing VIPP® forms for editing using the Form Resource Wizard Classic. To access and edit an existing form, the form must be coded in VIPP® native mode. Forms coded in EPS or TIFF format cannot be loaded or edited.

To use the Form Resource Wizard Classic, you must first access the New VIPP® Application window and then double-click on the Form Resource icon to display the VI Design Pro Form Resource window.

This window allows you to load an existing form, use a form template to create a new form, or create a new form without using a template. After specifying the information to use, click OK and VI Design Pro's window displays with

the associated information. Then use VI Design Pro's window to add information and to make changes to the form.

The following fields and information display on the VI Design Pro Form Resource window:

Load

Use this button to access an existing form file. When you click this button, the Choose a New FRM Form File to Load window displays. Use this window to select the form file to access.

After you select a form file and click **OK** on the Choose a New FRM Form File to Load window, the information for the form file displays in the box to the right of this field, and the file you selected is the only item available from the Form File (FRM) box.

Create

Use this button to create a new form file. When you click this button, the default Form file information displays in the box to the right of this field, and newFormFile.frm displays in the Form File (FRM) box. Use the Form File (FRM) Options section to specify the options to use for the new Form file. Use the Save Form File As field to specify the file name to use for the new Form file.

Templates

Use this button when to use a for file template. This is the default mode.

When you select this button, the Form File (FRM) box displays a list of all of the Form file templates that are currently available. These templates are stored in the VI Design Pro installation directory (generally vide\wizlib \wizFRM).

When you select a template from this list, the information for the template you select displays in the box. When you have clicked Load or Create, you must click this button again to return the window to Template mode, and to enable the template selections from the Form File (FRM) box.

Note: Make sure to specify a new name in the Save Form File As field so that you do not permanently change the template file.

Form File (FRM)

Use this box together with Load, Create, and Templates to select the appropriate Form file. The information related to the button you click and the Form file you select displays in the box to the right of this field.

Select/Create Folder and Project

Use this box to create a new project containing the form.

Save Form File As

Enter the name to use for the form file. This file should have an extension of .frm.

Location

Use this box to select the location in which to save the form file. The directories that are available are those that are defined in the xgf\src\xgfdos.run file by the SETFPATH command. This option is not accessible if creating a project.

Graphical Units

Use this box to select the default unit of measure to use for the form file (for example, DOT3 (1/300 inch)). This field is available only when you are creating a new form file.

Orientation

Use this box to select the default page orientation to use for the form file (for example, PORT (portrait)). This field is available only when you are creating a new form file.

Options are as follows:

PORT (portrait)	Display the form in portrait mode.
LAND (landscape)	Display the form in landscape mode.
IPORT (inverse portrait)	Display the form in inverse portrait mode.
ILAND (inverse landscape)	Display the form in inverse landscape mode.

USING WIZARD CLASSIC TO CREATE DATABASE MODE JOBS

This section describes how to use the **Database Mode Job Wizard Classic** to perform the activities described in these sections:

- Creating a New Database Mode Application
- Creating a New Line Mode Application Using a Template
- Creating a Data Base Master for Use with an Existing Data File
- Creating a Data File for Use with an Existing Data Base Master
- Using the VI Design Pro Database Mode Window

To use the Database Mode Job Wizard Classic, you must first access the New VIPP® Application window and then double-click on the DataBase Mode Job icon. This displays the VI Design Pro DataBase Mode window, which contains all of the buttons and fields necessary to access or create database files and DBMs. This window allows you to load existing database mode files, use a template to create a new data file or DBM, or create a new dat a file or DBM without using a template. The following sections describe how you perform these tasks.

Creating a New Database Mode Application

Once you access the VI Design Pro DataBase Mode window, use Create to create a new database mode application without using an existing template. To perform this task, click Create in both the Data File (DBF) and the Master File (DBM) sections.

When you click this button in the Data File (DBF) section, the basic default information displays in the box to the right of this field, and newTemplate.dbf displays in the Data File (DBF) box. Use the Data File (DBF) Options section to specify the options for the new data file.

When you click this button in the Master File (DBM) section, the basic default DBM information displays in the box to the right of this field, and newTemplate.dbm displays in the Master File (DBM) box. Use the Master File (DBM) Options section to specify the options for the new DBM.

Use the Save Data File As and the Save Master File As fields to specify the names to use for the new files.

When you click **OK** on the VI Design Pro DataBase Mode window, the new database file and the DBM file are saved and the VI Design Pro Project Wizard windows display to create a new project. The windows contain all of the information for the new database mode application you created. Use VI Design Pro's window to add information and to make changes to the database mode application.

Creating a New Database Mode Application Using a Template

In the VI Design Pro DataBase Mode window, use the **Templates** buttons to select the database mode templates to use to create a new database file and a corresponding Data Base Master (DBM) file. This is the default mode for the VI Design Pro Database Mode window.

In general, when you click either of the Templates buttons available on this window, the Data File (DBF) and the Master File (DBM) boxes provide a list of all of the database mode templates that are currently available. These are the templates that are stored in the VI Design Pro installation directory (generally vide\wizlib\wizDBM).

The database file template and DBM file template must always be of the same type (for example, barchart.dbf as the database file and barchart.dbm as the DBM file). Therefore, when you select a template from one of these boxes, the information for the template you selected displays in that box and the corresponding template displays in the other box. For example, when you select barchart.dbf from the Data File (DBF) box, barchart.dbm is automatically selected in the Master File (DBM) box.

When you create a new database mode application using a template, change the options for the data file using the fields located in the Data File (DBF) Options section of the window. However, the options for the DBM cannot be changed.

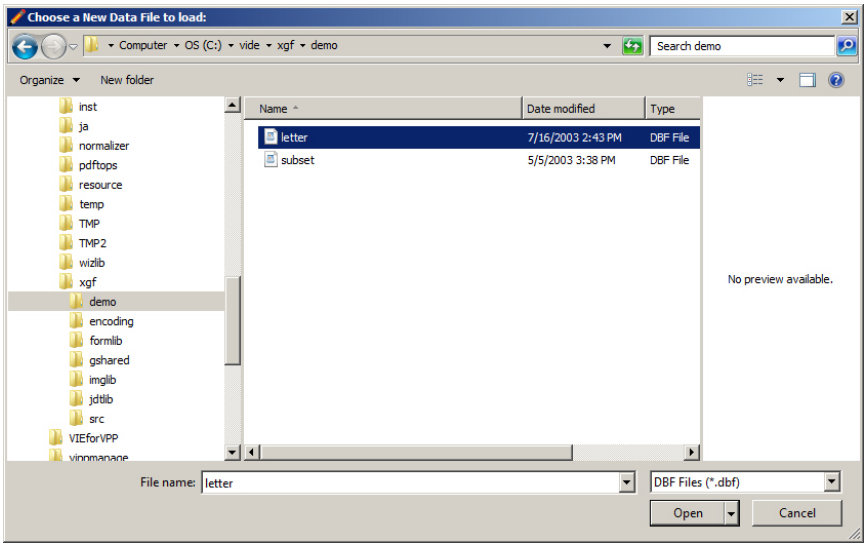
When you create a new database mode application using an existing template, specify a new name in the Save Data File As and the Save Master File As fields so that you do not permanently change the template files.

When you click **OK** on the VI Design Pro DataBase Mode window, the new database file and the DBM file are saved and the VI Design Pro Project Wizard windows display to create a new project. The windows contain all of the information for the new database mode application you created. Use the VI Design Pro window to add information and to make changes to the database mode application.

When you have selected **Load** or **Create**, you must select one of the Templates buttons available on this window to return the window to Template mode, and to enable the template selections in the Data File (DBF) and the Master File (DBM) boxes.

Creating a Data Base Master for Use with an Existing Data File

Once you access the VI Design Pro DataBase Mode window, access the existing data file and then create the new DBM to use to process the data file. To access the existing data file, click Load in the Data File (DBF) section to access the Choose a New Data File to load window. Use this window to select the data file to access and click **Open**. The Data Fields Information window displays.



Field Delimiter

Specify the field delimiter for the data file (for example, :) and select the appropriate button to specify whether the first row of the data file contains the necessary field name information.

- When you select Yes... and click **OK**, the VI Design Pro DataBase Mode window displays with the name of the data file you select ed in the Data File (DBF) box and the information for the data file displayed in the associated box.
- When you select No... and click **OK**, the Data Record Field Names Definitions window displays.

This window contains the current field values and default field names for the fields that are included in the first record of the selected data file. To change the default field names, use the mouse or the arrow keys to select a field value/field name item from the boxes and use Selected Field Name to change the field name information.

When you have made all of the field name changes, or to keep the existing field values, click **OK**. The VI Design Pro DataBase Mode window displays with the name of the data file you selected contained in the Data File (DBF) box and the information for the data file displayed in the associated box.

Once you perform this task, Create is disabled in the Data File (DBF) section, Load is disabled in the Master File (DBM) section, the Master File (DBM) box defaults to *NONE* with no other selections available, and only changes to the Duplex Mode, BSTRIP_off, and QSTRIP_on fields can be made in the Data File (DBF) Options section.

Use the fields that are available in the Master File (DBM) section to specify the orientation and select the form for the DBM. Use the Orientation box to select the orientation to use for the DBM and then click **Browse** (next to the Form File field) to access the Select Form Resource File window. Use this window to select the form file to use for the DBM you are creating. Make sure that the form you select is coded in VIPP® native mode; forms that are encoded in EPS or TIFF cannot be accessed or edited.

To create the DBM, click **Create** in the Master File (DBM) section. The basic default DBM information displays in the box to the right of this field, and newTemplate.dbm displays in the Master File (DBM) box. Use the Master File (DBM) Options section to specify the options for the new DBM.

Make sure to specify a new name in the Save Master File As field to save the new DBM.

When you click **OK** on the VI Design Pro DataBase Mode window, the database file and the new DBM file are saved, and the VI Design Pro Project Wizard windows display to create a new project. VI Design Pro's window contains all of the information for the database mode application. Use VI Design Pro's window to add information

and to make changes to the application.

Creating a Data File for Use with an Existing Data Base Master

Once the VI Design Pro DataBase Mode window is accessed, create a new database file for use with an existing DBM file to test the design and output of an application. To access the existing DBM file, click **Load** in the Master File (DBM) section to access the Choose a New DBM Master File to load window. Use this window to select the DBM file to access and click **Open**.

Note: Make sure that the DBM you select includes the required WIZVAR comments at the beginning of the file. This is necessary so that the field name and number information is available. When the WIZVAR comments are not available in the comment section of the DBM file you select, an error occurs.

Once you perform this task, **Create** is disabled in the Master File (DBM) section, **Load** is disabled in the Data File (DBF) section, and the Data File (DBF) box defaults to `*NONE*` with no other selections available.

To create the data file, click **Create** in the Data File (DBF) section. The basic default data file information displays in the box to the right of this field, and `newTemplate.dbf` displays in the Data File (DBF) box. Use the Data File (DBF) Options section to specify the options for the new data file.

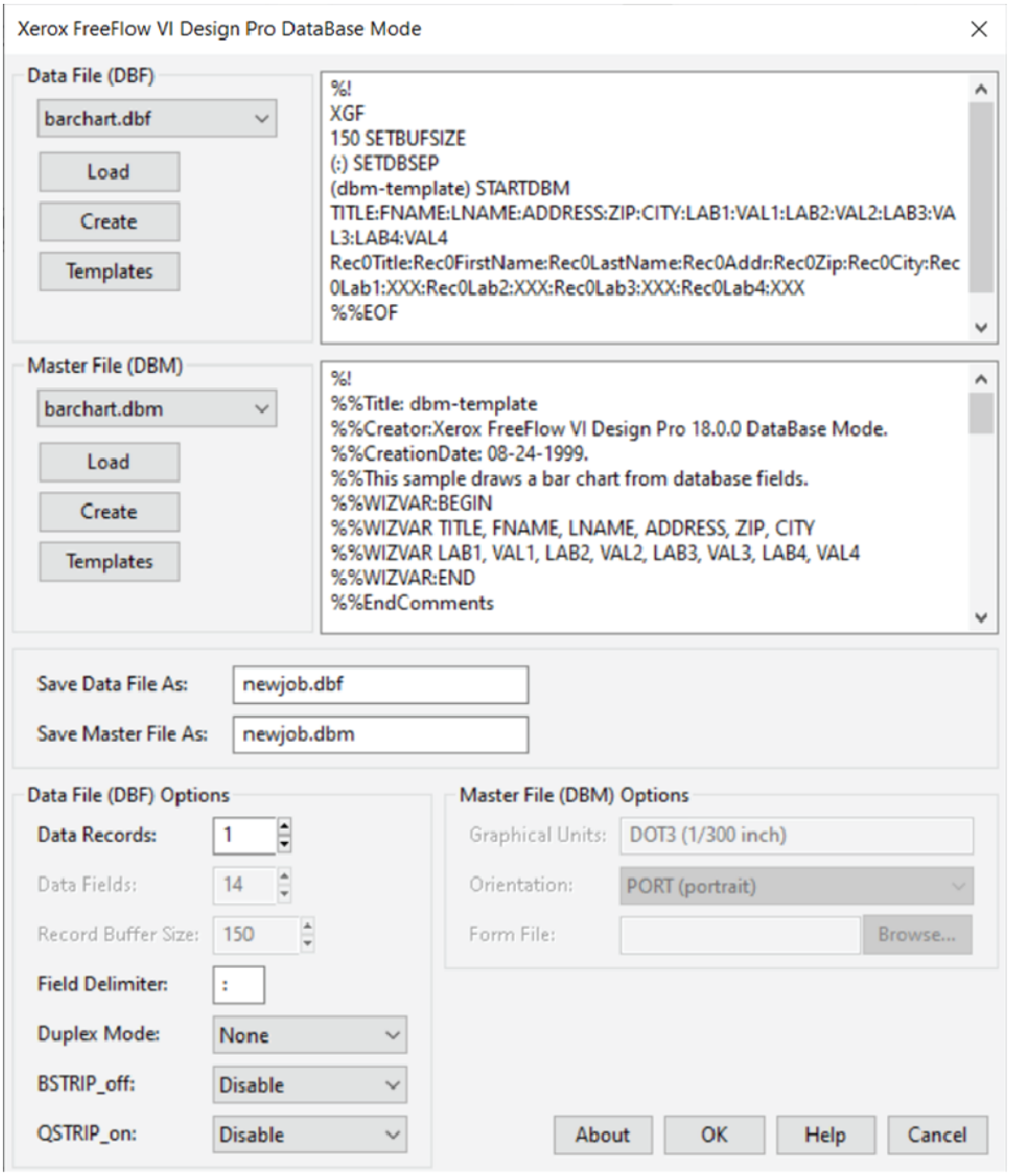
When you click **OK** on the VI Design Pro DataBase Mode window, the new database file and the DBM file are saved and the VI Design Pro window displays. The VI Design Pro window contains all of the information for the database mode application. Use the VI Design Pro window to add information and to make changes to the application.

Using the VI Design Pro Database Mode Window

This section describes the information that you select, and that displays, when you access the VI Design Pro DataBase Mode window. You access this window when you select **File > New** and double-click on the **DataBase Mode Job icon**. Use the DataBase Mode window to access an existing DataBase mode data file or Data Base Master (DBM) file, create a new DataBase mode data file or Data Base Master (DBM) file, or access an existing DataBase mode data file template and Data Base Master (DBM) file template.

After using the VI Design Pro DataBase Mode window to specify the information to use to access an existing DataBase mode application, create a new DataBase mode application, or use a DataBase mode template, and click **OK**, the VI Design Pro Project Wizard windows display to create a new project.

Use VI Design Pro's window to manipulate, test, and print the DataBase mode application information and to prepare it for output to a PostScript printer.



These fields and information display on the VI Design Pro DataBase Mode window:

Data File (DBF)

Use this box together with the Load, Create, and Templates buttons to select the appropriate DataBase mode data file. The information related to the button you click and the data file you select displays in the box to the right of this field. Use this box and the buttons as follows:

Load

Click this button to access an existing DataBase mode data file. When you click this button, the Choose a New Data File to Load window displays. Use this window to select the DataBase mode data file to access. After you select the DataBase mode data file and click **OK**, the data stream information for the DataBase mode data file displays in the box to the right of this field, and the file you selected is the only item available from the Data File (DBF) box. This option allows you to import a data file that was created by a third-party application (such as Access) for use with the application. Use Create and Master File (DBM) to create a DBM for use with the data

file.

Create

Click this button to create a new DataBase mode data file. When you click this button, the basic default information displays in the box to the right of this field, and newTemplate.dbf displays in the Data File (DBF) box. Use the Data File (DBF) Options section to specify the options for the new data file. In addition, use the Master File (DBM) box and buttons to select or create a DBM for use with the new DataBase mode data file. Use the Save Data File As field to specify the file name to use for the new DataBase mode data file.

Templates

Click this button to use a DataBase mode data file template. When you click this button, the Data File (DBF) box contains a list of all of the DataBase mode data file templates that are available. When you select a template from this list, the information for the template you selected displays in the box and the corresponding Data Base Master (DBM) file template displays in the Master File (DBM) box. The database file template and DBM file template must always be of the same type (for example, barchart.dbf as the database file and barchart.dbm as the DBM file). Make sure to specify a new name in the Save Data File As field so that you do not permanently change the template file.
The following options are currently available from this box:

barchart.dbf	use a barchart file template.
curvechart.dbf	use a curvechart file tem plate.
letter.dbf	use a letter file template.
payoff.dbf	use a payoff file template.
piechart.dbf	use a piechart file template.

Master File (DBM)

Use this box together with the Load, Create, and Templates buttons to select the appropriate Data Base Master (DBM) file. The information related to the button you click and the DBM you select displays in the box to the right of this field. Use this box and the buttons as follows:

Load

Click this button to access an existing DBM. When you click this button, the Choose a New DBM Master File to Load window displays. Use this window to select the DBM to access. After you select the DBM and click **OK**, the information for the DBM displays in the box to the right of this field, and the DBM you selected is the only item available from Master File (DBM). Use Create a Data File (DBF) to create a DataBase mode data file for use with the DBM.

Create

Click this button to create a DBM. When you click this button, the basic default DBM information displays in the box to the right of this field, and newTemplate.dbm displays in the Master File (DBM) box. Use the Master File (DBM) Options section to specify the options for the new DBM. In addition, use the Data File (DBF) box and buttons to select or create a DataBase mode data file for use with the new DBM. Use the Save Master File As field to specify the file name to use for the new DBM.

Templates

Click this button to use a DBM template. When you click this button, the Master File (DBM) box contains a list of

all of the DBM templates that are available. When you select a template from this list, the information for the DBM template you selected displays in the box and the corresponding DataBase mode data file displays in the Data File (DBF) box. The DBM file template and database file template must always be of the same type (for example, barchart.dbm as the DBM file and barchart.dbf as the database file). Make sure to specify a new name in the Save Master File As field so that you do not permanently change the template file.
The following options are currently available from this box:

barchart.dbm	use a barchart DBM file template.
curvechart.dbm	use a curvechart DBM file template.
letter.dbm	use a letter file DBM template.
payoff.dbm	use a payoff file DBM template.
piechart.dbm	use a piechart file DBM template.

Save Data File As

Enter the name to use for the DataBase mode data file. This file should have an extension of .dbf.

Save Master File As

Enter the name to use for the DBM. This file should have an extension of .dbm.

Data Records

Use this box to specify the number of data records (lines) in the data file. When using a template with increased values specified, additional records with programmatically generated data are created. Specify a value from 1 to 500. This field is only available when you are creating a new DataBase mode data file.

Data Fields

Displays the number of data fields for the DataBase mode data file. This field is informational only.The information in this field cannot be changed.

Record Buffer Size

Use this box to specify the default record buffer size for the DataBase mode data file. Specify a buffer size from 150 to 32,000. This field is only available when creating a new DataBase mode data file.

Field Separator

Enter the default single-character field delimiter character for the DataBase mode data file. This is the character that is used to separate fields in the data file (for example a colon (:) or a dash (-)). You must enter a value in this field. However, a forward slash (/), backslash (\), or a blank space cannot be entered. A two-digit character hex value in the range 21 ...FF, or the tab hex value of 09 can be entered in this field.
This information is used to generate the SETDBSEP command that is located at the beginning of the data file. This field is only available when you are creating a new DataBase mode data file.

Note: Do not place the cursor in this field and press Tab to specify a tab character, enter the tab hex value as a two-digit number 09 rather than 9. When a character hex value that is not in the range 21 ...FF is entered, an error occurs.

Duplex Mode

Use the box to select the default duplex print mode to use for the DataBase mode data file. This field is only

available when you are creating a new DataBase mode data file. Options are as follows:

None

Output the application in simplex mode.

Regular Duplex

Output the application in regular duplex mode.

Tumble Duplex

Output the application in tumble duplex mode. This option rotates the even page (back page) images.

BSTRIP_off

Use the box to specify the default BSTRIP setting for the DataBase mode data file and to strip the leading and trailing blanks in the delimited fields.

Enable

Turn on this function.

Disable

Turn off this function.

This field is only available when you are creating a new DataBase mode data file.

QSTRIP_on

Use the box to specify the default QSTRIP setting for the DataBase mode data file and to strip the first and last characters from the delimited fields.

Enable

Turn on this function.

Disable

Turn off this function.

This field is only available when you are creating a new DataBase mode data file.

Graphical Units

Contains the unit of measure in use for the DBM (for example, DOT3 (1/300 inch)). This field is informational only. The information in this field cannot be changed.

Orientation

Use the box to select the default page orientation for the DBM (for example, PORT (portrait)). This field is only available when you are creating a new DBM. Options are as follows:

PORT (portrait)

Output the application in portrait mode.

LAND (landscape)

Output the application in landscape mode.

IPORT (inverse portrait)

Output the application in inverse portrait mode.

ILAND (inverse landscape)

Output the application in inverse landscape mode.

Form File

Click **Browse** to access the Select Form Resource File window and select the default form to use with the DBM. This field is only available when you are creating a new DBM.
This option allows you to access VIPP® Native format files created using the Forms Resource Wizard Classic and valid Encapsulated PostScript (EPS) files created using a third-party application (such as PageMaker) and to merge these forms with the application.

USING WIZARD CLASSIC TO CREATE LINE MODE APPLICATIONS

This section describes how to use the Line Mode Job Wizard Classic to perform the activities described in these sections:

- Creating a New Line Mode Application
- Creating a New Line Mode Application Using a Template
- Creating a Job Descriptor Ticket for Use with an Existing Line Mode Data File
- Creating a Line Mode Data File for Use with an Existing Job Descriptor Ticket
- Using the VI Design Pro Line Mode Window

To use the Line Mode Job Wizard Classic, you must first access the New VIPP® Application window and then double-click the **Line Mode Job** icon. This displays the VI Design Pro Line Mode window that contains all of the buttons and fields necessary to access or create line mode files and JDTs. This window allows you to load existing line mode files, use a template to create a new line mode data file or JDT, or to create a new line mode data file or JDT without using a template. The following sections describe how you perform these tasks.

Creating a New Line Mode Application

Once you access the VI Design Pro Line Mode window, use the Create buttons to create a new line mode application without using an existing template. To perform this task, you click **Create** in both the Data File (LM) and the Job Descriptor Ticket (JDT) sections.

When you click this button in the Data File (LM) section, the basic default information displays in the box to the right of this field, and newTemplate.lm displays in the Data File (LM) box. Use the Data File (LM) Options section to specify the options for the new data file.

When you click this button in the Job Descriptor Ticket (JDT) section, the basic default JDT information displays in the box to the right of this field, and newTemplate.jdt displays in the Job Descriptor Ticket (JDT) box. Use the Job Descriptor Ticket (JDT) Options section to specify the options for the new JDT.

Use the **Save Data File As** and the **Save JDT File As** fields to specify the names to use for the new files.

Creating a New Line Mode Application Using a Template

In the VI Design Pro Line Mode window, use the Templates buttons to select the line mode templates to use to create a new line mode data file and a corresponding Job Descriptor (JDT) file. This is the default mode for the VI Design Pro Line Mode window.

In general, when you click either of the Templates buttons available on this window, the Data File (LM) and the Job Descriptor File (JDT) boxes provide a list of all of the line mode templates that are currently available. These are the templates that are stored in the VI Design Pro installation directory in `vide\wizlib\wizLM`.

The line mode data file template and JDT file template must always be of the same type (for example, checks.lm as the data file and checks.jdt as the JDT file). Therefore, when you select a template from one of these boxes, the information for the template you selected displays in that box and the corresponding template displays in the other box. For example, when you select checks.lm from the Data File (LM) box, checks.jdt is automatically selected in the Job Descriptor Ticket (JDT) box.

When creating a new line mode application using a template, the options for the data file or the JDT cannot be changed. The fields located in the Data File (LM) Options and the Job Descriptor Ticket (JDT) sections of the window are disabled.

When you create a new line mode application using an existing template, specify a new name in the Save Data File As and the Save JDT File As fields, so that you do not permanently change the template files.

When you have selected **Load** or **Create**, you must select one of the Templates buttons available on this window to return the window to Template mode, and to enable the template selections in the Data File (LM) and the Job Descriptor Ticket (JDT) boxes.

Creating a Job Descriptor Ticket for Use with an Existing Line Mode Data File

Once you access the VI Design Pro Line Mode window, access an existing data file and then create the new JDT to use to process the data file. Before you access the data file, you must determine whether you intend to use RPEs. When you do not intend to use RPEs, make sure that there is no check in the Use RPE box in the Job Descriptor Ticket (JDT) Options section of the window. When you do intend to use RPEs, check Use RPE.

To access the existing data file to use, click **Load** in the Data File (LM) section to access the **Choose a New Data File** to load window. Use this window to select the data file to access and click **Open**. When the file is loading, VI Design Pro locates the longest record and any Form Feed characters and uses this information to enter the SETGRID parameters in the Characters per Line and Line per Page fields in the Job Descriptor Ticket (JDT) Options section of the window.

Once you perform this task, Create is disabled in the Data File (LM) section, Load is disabled in the Job Descriptor Ticket (JDT) section, and the Job Descriptor Ticket (JDT) box defaults to NONE with no other selections available.

To create the JDT, click **Create** in the Job Descriptor Ticket (JDT) section. The basic default JDT information displays in the box to the right of this field, and newTemplate.jdt displays in the Job Descriptor Ticket (JDT) box. Use the Job Descriptor Ticket (JDT) Options section to specify the options for the new JDT.

Make sure to specify a new name in the Save JDT File As field to save the new JDT.

Creating a Line Mode Data File for Use with an Existing Job Descriptor Ticket

Once you access the VI Design Pro Line Mode window, create a new line mode data file for use with an existing JDT file to test the design and output of an application. To access the existing JDT file, click **Load** in the Job Descriptor

Ticket (JDT) section to access the **Choose a New JDT File** to load window. Use this window to select the JDT file to access and click **Open**.

When the file is loading, VI Design Pro searches for the SETGRID and orientation values and enters any available information in the Characters per Line, Line per Page, and Orientation fields in the Job Descriptor Ticket (JDT) Options section of the window. This information is used to create the data file. Modify these values using the fields available in the Data File (LM) section.

Once you have selected the JDT, Create is disabled in the Job Descriptor Ticket (JDT) section, Load is disabled in the Data File (LM) section, and the Data File (LM) box defaults to NONE with no other selections available.

To create the data file, click **Create** in the Data File (LM) section. The basic default data file information displays in the box to the right of this field, and newTemplate.lm displays in the Data File (LM) box. Use the Data File (LM) Options section to specify the options for the new data file.

Make sure to specify a new name in the Save Data File As field.

Using the VI Design Pro Line Mode Window

This section describes the information that you select, and that displays, when you access the VI Design Pro Line Mode window. Use this window to access an existing Line mode data file or Job Descriptor Ticket (JDT) file, create a new Line mode data file or Job Descriptor Ticket (JDT) file, or to access an existing Line mode data file template and Job Descriptor Ticket (JDT) file template.

After specifying the information used to access an existing Line mode application, create a new Line mode application, or use a Line mode application template, click **OK** to display the VI Design Pro Project Wizard window to create a new project. Then use VI Design Pro's window to manipulate, test, and print the application information and prepare it for output to a PostScript printer.

The following fields and information display on the VI Design Pro Line Mode window:

Data File (LM)

Use this box together with the Load, Create, and Templates buttons to select the appropriate line mode data file. The information related to the button you click and the data file you select displays in the box to the right of this field. Use this box and the buttons as follows:

Load

Click this button to access an existing line mode data file. When you click this button, the Choose a New Data File to Load window displays. Use this window to select the line mode data file to access. After you select the line mode data file and click **OK**, the data stream information for the line mode data file displays in the box to the right of this field, and the file you selected is the only item available from the Data File (LM) box.
This option allows you to import a data file that was created by a third-party application (such as Access) for use with the application. Use Create and the Job Descriptor Ticket (JDT) box to create a JDT for use with the data file.

Create

Click this button to create a new line mode data file. When you click this button, the basic default data stream information displays in the box to the right of this field, and newTemplate.lm displays in the Data File (LM) box. Use the Data File (LM) Options section to specify the options for the new data file. Use the Save Data File As field to specify the file name to use for the new line mode data file.

Templates

Click this button to use a line mode data file template. When you click this button, the Data File (LM) contains a list of all of the line mode data file templates that are available. When you select a template from this list, the data stream information for the template you selected displays in the box and the corresponding JDT displays in the Job Descriptor Ticket (JDT) box. Make sure to specify a new name in the Save Data File As field so that you do not permanently change the template file.

Job Descriptor Ticket (JDT)

Use this box together with the Load, Create, and Templates buttons to select the appropriate Job Descriptor Ticket (JDT) file. The information related to the button you click and the JDT file you select displays in the box to the right of this field. Use this box and the buttons as follows:

Load

Click this button to access an existing JDT. When you click this button, the Choose a New JDT File to Load window displays. Use this window to select the JDT to access. After you select the JDT and click **OK**, the information for the JDT displays in the box to the right of this field, and the JDT you selected is the only item available from the Job Descriptor Ticket (JDT) box. Use Create and the Data File (LM) box to create a line mode data file for use with the JDT.

Create

Click this button to create a JDT. When you click this button, the basic default JDT information displays in the box to the right of this field, and newTemplate.jdt displays in the Job Descriptor Ticket (JDT) box. Use the Job Descriptor Ticket (JDT) Options section to specify the options for the new JDT. Use the Save JDT File As field to specify the file name to use for the new JDT.

Templates

Click this button to use a JDT template. When you click this button, the Job Descriptor Ticket (JDT) box contains a list of all of the JDT templates that are available. When you select a template from this list, the information for the JDT template you selected displays in the box and the corresponding line mode data file displays in the Data File (LM) box. Specify a new name in the Save JDT File As field so that you do not permanently change the template file.

Save Data File As

Enter the name to use for the line mode data file. This file should have an extension of .lm.

Save JDT File As

Enter the name to use for the JDT. This file should have an extension of .jdt.

Characters per Line

Use this box to specify the default for the maximum number of characters per line to use for the line mode data file. This field is only available when you are creating a new line mode data file. The valid range is from 1 to 255.

Lines per Page

Use this box to specify the default for the maximum number of lines per page to use for the line mode data file. This field is only available when you are creating a new line mode data file. The valid range is from 1 to 255.

Record Buffer Size

Use this box to specify the default maximum record buffer size to use for the line mode data file. Specify a buffer size from 150 to 32,000. This field is only available when you are creating a new line mode data file.

Number of Pages

Use this box to specify the default number of pages to use for the line mode data file. This field is only available when you are creating a new line mode data file. The valid range is from 1 to 100.

Graphical Units

Contains the unit of measure in use for the JDT file, for example, DOT3 (1/300 in.). This field is for information only. The information in this field cannot be changed.

Orientation

Use this box to select the default page orientation to use for the JDT file, for example, PORT (portrait). This field is only available when you are creating a new JDT. Options are as follows:

PORT (portrait)

Display the application in portrait mode.

LAND (landscape)

Display the application in landscape mode.

IPORT (inverse portrait)

Display the application in inverse portrait mode.

ILAND (inverse landscape)

Display the application in inverse landscape mode.

Duplex Mode

Use this box to specify the default duplex print mode to use for the JDT. This field is only available when you are creating a new JDT. Options are as follows:

None

Do not output the application in duplex mode.

Regular Duplex

Output the application in regular duplex mode.

Tumble Duplex

Output the application in tumble duplex mode. This option rotates the even page (back page) images.

Use SETGRID

Select this check box to specify the default values that will be used to insert character per line and line per page information for the JDT. When you select this check box, the Characters per Line and Lines per Page fields for the JDT are enabled. This field is only available when you are creating a new JDT. By default, the check box is selected.

Use RPE

Select this check box to use a Record Processing Entry (RPE) library definition in the Job Descriptor Ticket (JDT) file.

By default, the check box is not selected.

Characters per Line

Use this box to specify the default for the maximum number of characters per line to use for the JDT. This field is only available when you are creating a new JDT and you select the **Use SETGRID** check box. The valid range is from 1 to 255.

Lines per Page

Use this box to specify the default for the maximum number of lines per page to use for the JDT. This field is only available when you are creating a new JDT and you select the **Use SETGRID** check box. The valid range is from 1 to 255.

Form File

Click **Browse** to access the Select Form Resource File window and select the default form to use with the JDT. This field is only available when you are creating a new JDT.

Smart Editor

This chapter contains:

The Smart Editor is an interactive facility that allows you to add or edit VIPP® commands, parameters, and values in the source files. When you right-click on most areas in VI Design Pro's GUI, a menu will pop up. The contents of the menu is context-sensitive and allows access to all the commands and functions available in VI Design Pro.

SmartEditor and Error Correction

In general, the SmartEditor cannot be relied on to automatically fix errors in VIPP® command arguments or syntax that may exist in the VIPP® source code. This is because the number of different ways a given VIPP® command can be improperly formed is potentially infinite. Beyond a certain point, the SmartEditor can no longer determine the intent of the code well enough to decide how to present editing options. If, upon invocation, the SmartEditor detects command parameter problems (either wrong parameter type or missing parameters) that it cannot handle, it will notify you of the failure to successfully parse the command. If this happens, select the VIPP® command with the mouse and use the F1/Help feature to determine the nature of the problem and to correct the syntax manually.

Depreciated Commands

In order to maintain backward compatibility, the Smart Editor contains some menu items and dialogs for deprecated commands. Although the commands are supported, Xerox recommends that the replacement command, SETFINISHING, be used in lieu of the older commands.
Command dialogs for deprecated commands are not discussed in this document. For information on deprecated command dialogs, refer to earlier versions of this document, and of the *VIPP® Language Reference Manual*.

Command Dialogs

The Smart Editor menu provides access to all VIPP® commands and parameters via dialogs, each of which are described in detail in the following sections. The information found in these sections can be applied to both the Insert a ... Command dialogs, and the corresponding Edit a ... Command dialogs.

The Smart Editor menu provides access to these general groups of VIPP® commands:

Fonts, colors, and variables	Output Device Control	PDF Interactive Features
Page Layout	Print File Processing	Job Data Capture
Page Marking	Cyclecopy Control	Custom Color Lists
RPE Items	Page Control	

The command dialogs contain fields in which you can enter variable and parameter information specific to the command being entered.

Fonts, Colors, and Variables

The Smart Editor produces these options when Font, Colors, and Variables is selected from the Smart Editor menu:

Index Font	Set Color Definition	Set Text Bkgrd Att ribute
Index Font Kerning	Set GEP Definition	Set Sub/SuperScript
Index Color	Define Layout	Set Variable
Index BAT Key	Set Layout	Store Variable
Index Line Spacing	Set Font	Save Current Context
Index Sub/Superscript	Set Font Kerning	Reset Current Context
Index Align	Set Text Color	Set Date

INDEX FONT

The Index Font option accesses the Insert INDEXFONT Command dialog. Use this dialog to specify the information to use to create a font index and then insert the font index command at the current cursor position.

These fields appear on the Insert INDEXFONT Command dialog:

Font Sample

Refer to Font and Effects Preview/Select/Sample in the VI Design Pro GUI chapter of this document for information on changing the sample font viewed here.

Font Index Name

Enter the name to use for the font index.

- When used externally, to enter any alphanumeric string starting with an alphabetic character.
- When used inside printable data, to enter a string that consists of a single alphanumeric character.

Font Name

Use the **Font Name** box to select the font to assign to the font index. This list includes all of the fonts currently available for use.

Font Type

Choose one of the following font types:

- Normal
- Microprint
- Gloss Text

These options are also included to facilitate changing the font face to a different member of the same font family without having to respecify the Fontname:

/~REG	Regular font of current family
/~BLD	Bold font of current family

/~ITL	Italic font of current family
/~BDI	Bold Italic font of current family
/~CUR	Current font of current family

Specify Height and Width

Select the **Specify Height and Width** check box to specify a different font size for the font height and width.

Font Width

Enter a value specifying the font width for the font index. Enter a value that includes integers or real numbers. The font size is based on units of 1/72 points. When you enter 0, the font is automatically scaled based on the margins and grid that are specified in the **SETMARGIN** and **SETGRID** commands.

Initially, this field is labeled FontSize. When you check the **Use X and Y** size box, this field name displays as X FontSize and the font size value you enter applies only to the X (horizontal) axis.

Font Height

Enter a value specifying the font height. Use a value that includes integers or real numbers. The font size is based on units of 1/72 points. When 0 is entered, the font is automatically scaled based on the margins and grid specified in the **SETMARGIN** and **SETGRID** commands. This field is only enabled when the Specify Height and Width box is checked.

INDEX FONT KERNING

The Index Font Kerning option accesses the Insert INDEXKERN Command dialog. Use this dialog to specify the information to use to create a font kerning index and then insert the font kerning index command at the current cursor position.

More information about font kerning can be found in the *VIPP® Language Reference Manual*, and in Adding PostScript fonts.

These fields appear on the Insert IndexKERN Command dialog:

Kern Index

Insert an alphanumeric string defining the Kern Index, the default is /K1.

Once defined by INDEXKERN, Kernindex can be used externally as a stand-alone command between subsequent SHx commands, or following a switch prefix inside printable data processed by SHMF or SHP. The switch prefix is defined by SETFTSW (the default is "//").

When used externally, the kern index can be any alphanumeric string starting with an alphabetic character. When used inside printable data, the kern index must be an alphanumeric character string whose length is defined by SETFTSW (the default is 1).

Pair-wise Kerning

Select the pair-wise kerning option. Selections include:

0	Disable
null	Keep current

.5	Looser
1	Regular
1.5	Tight
2	Tighter

Generic Track Kerning

Select generic track kerning values:

0	Disable
null	Keep current
-3	Tightest
-2	Tighter
-1	Tight
1	Loose
2	Looser
3	Loosest

Track Kerning Degree

Define the track kerning degree. Choose one of these values:

0	Disable
null	Keep current
-3	Tightest
-2	Tighter
-1	Tight
1	Loose
2	Looser
3	Loosest

INDEX COLOR

The Index Color option accesses the Insert INDEXCOLOR Command dialog. Use this dialog to specify the information to use to create a color index and then insert the color index command at the current cursor position.

These fields appear on the Insert IndexColor Command dialog:

Index Name

Enter the name to use for the color index.

- When used externally, enter any alphanumeric string starting with an alphabetic character.
- When used inside printable data, enter a string that consists of a single alphanumeric character.

Colorkey

Use this box to select the name of the text Colorkey to assign to the color index. The box on the right side of the dialog displays the color that you selected. This list includes all of the font Colorkeys that are currently available for use.

Transparency level

Enter 0 to 1

Tint

Enter 0 to 1

Pattern

Use this box to select the name of the pattern to assign to the color index. This list includes all of the patterns that are currently available for use.

INDEX BAT KEY

The Index BAT Key option accesses the Insert INDEXBAT Command dialog. Use this dialog to specify the information to use to create a background attribute key index and then insert the background attribute key index command at the current cursor position.

These fields appear on the Insert **IndexBAT** Command dialog:

Index Name

Enter the name to use for the background attribute key index.

- When used externally, enter any alphanumeric string starting with an alphabetic character.
- When used inside printable data, enter a string that consists of a single alphanumeric character.

BAT Key

Use this menu to select the name of the background attribute key to assign to the background attribute key index. This list includes all of the background attribute keys that are currently available for use.

INDEX LINE SPACING

The Index line Spacing option accesses the Insert INDEXLSP Command dialog. Use this dialog to specify the information to use to create a line spacing index and then insert the line spacing command at the current cursor position. **INDEXLSP** is mainly intended to be used inside text blocks printed with SHP in conjunction with fonts of different sizes.

Index Name

Enter the name to use for the line spacing index.

Spacing Value

Use this box to enter a value for line spacing in the application.

INDEX SUB/SUPERSCRIPT

The Index Sub/Superscript option accesses the Insert INDEXSST Command dialog. Use this dialog to specify the parameters for subscript or superscript and insert the command at the current cursor position.

These fields appear on the Insert INDEXSST Command dialog:

Index Name

Enter the name to use for the Sub/Super parameter index.

Sub/Super Parameter

Use this drop down list to select the name of the subscript or superscript parameter to assign to the sub/super attribute key index. This list includes all of the sub/super attribute keys that are currently available for use.

INDEX ALIGN

The Index Align option accesses the Insert INDEXALIGN Command dialog. Use this dialog to specify the information to use to create an alignment index and then insert the align parameter at the current cursor position. **INDEXALIGN** is only effective inside text blocks printed with SHP.

Alignment Index Name

Enter the name to use for the alignment index.

Text Alignment

Select one of the following values:

- Left or Top
- Right or Bottom
- Center
- Justified
- Right-align Last Line
- Center Last Line
- Justify All Lines

SET COLOR DEFINITION

The Set Color Definition option accesses the Insert SETCOL Command dialog. Use this dialog to define colors used in the application, including those applied to graphic elements and gradient fills. (The dialog depicted below is a composite of all selections, boxes on the screen will be greyed out.)

These fields appear on the Insert SETCOL Command Dialog:

Color Name

Enter the name of the color you are defining.

Color Type

Select one of these color types:

Grayscale

Activates the Grayscale field

RGB

Activates the Red, Green, and Blue fields

CMYK

Activates the Cyan, Magenta, Yellow, Black and Separation Color Space fields

Gradient

Activates the Start, Middle and End Color/Weight, tint, and Direction fields on the dialog

Color Sample

Displays a sample of the color being defined.

Grayscale

Used when the Grayscale color type is selected. Enter the grayscale value used. the range is from 0 (black) to 1 (white).

Red

Active when the RGB Color type is selected, enter a value between 0 and 1.

Green

Active when the RGB Color type is selected, enter a value between 0 and 1 or when the CMYK Color type selected and Separation Color Space is /CMYKG.

Blue

Active when the RGB Color type is selected, enter a value between 0 and 1 or when the CMYK Color type selected and Separation Color Space is /CMYKB.

Cyan

Active when the CMYK Color type is selected, enter a value between 0 and 1.

Magenta

Active when the CMYK Color type is selected, enter a value between 0 and 1.

Yellow

Active when the CMYK Color type is selected, enter a value between 0 and 1.

Black

Active when the CMYK Color type is selected, enter a value between 0 and 1.

Orange

Active when the CMYK Color type is selected, enter a value between 0 and 1. Fifth color support.

Separation Color Space

Choose a value from the drop-down list. When a selection is made the color boxes for the available colors are activated. (For example, if /SCS_CMY is chosen, the Cyan, Magenta and Yellow boxes are available for input.)

Start Color

Active when the Gradient Color type is selected, use the drop-down to define the start color.

Middle Color

Active when the Gradient Color type is selected, use the drop-down to define the middle color.

End Color

Active when the Gradient Color type is selected, use the drop-down to define the end color.

Start Color Weight

Active when the Gradient Color type is selected, use the drop-down to define the color weight, or gradation, between the Start and Middle colors.

Middle Color Weight

Active when the Gradient Color type is selected, use the drop-down to define how long the Middle color is maintained unchanged in the middle (between the Start and End colors).

End Color Weight

Active when the Gradient Color type is selected, use the drop-down to define the End color weight, or gradation, between the Middle and End colors. When the weight is equal to zero only the Start and Middle colors are used.

Tint

Active when the Gradient Color type is selected, enter a number ranging from 0 to 2, which is used to apply a common tint to the entire gradient.

0 to 1	Light tints from white to plain colors
1	Plain color
1 to 2	Dark tints from plain colors to black

Direction

Active when the Gradient Color type is selected, select either horizontal or vertical direction in which to apply the gradient.

Clear Dry Ink

Active when the CMYK Color type is selected and Separation Color Space is either /SCS_SV or /SCS_V or /SCS_CMYKV, enter a value between 0 and 1.

Spot Color

Active when the CMYK Color type is selected and Separation Color Space is /SCS_SV, populated custom PANTONE color list.

SET GEP DEFINITION

The Set GEP Definition option accesses the Insert SETGEP Command dialog. Use this dialog to define a GEPkey.

GEP Key Name

Enter the name of the GEPKey you are defining.

Line Width

Enter the value for the line width of the outline border. 0 indicates no border.

Border Color

Use the drop-down list to select the border color.

Border Pattern

Use the drop-down list to select the border pattern.

Dash Pattern

Use to define the dash pattern for the outline border. 0 indicates a solid line. It may be either a single number defining the equal width of filled and unfilled portions or a list specifying the initial offset and a width sequence.

Fill Color

Use the drop-down list to select the fill color.

Fill Pattern

Use the drop-down list to select the fill pattern.

DEFINE LAYOUT

The Define Layout option accesses the Insert **DEFINELAYOUT** Command dialog. Use this dialog to define different logical page layouts for Multi-Up applications. The layouts defined here are used with the **SETLAYOUT** command.

These fields appear on the Insert Command dialog:

Layout Name

Enter a name for the layout being defined.

/PageWidth

Enter the width of the logical pages.

/PageHeight

Enter the height of the logical pages.

/LayoutMarks

Choose one of the following options:

0	No Marks, default
1	Crop Marks
2	Bleed Marks
3	Both

Layout Mark Pages

Choose one of the following options:

00	Front Pages Only
10	Back Pages Only
20	Front and Back Pages

Omit Marks

Choose one of the following options:

000	None
100	Inside Crop Marks
200	Inside Bleed Marks
300	Inside Crop and Bleed Marks

/MarkLength

Enter the length of the layout marks. The default value length is 18 points.

/MarkWidth

Enter the width of the layout marks. The default value width is .5 points.

/MarkOffset

Enter offset for mark from the corner. The default value of offset is 4.5 points.

/TopBleed

Enter a value for the amount of bleed allowed at the top margin of the logical page. The default value is 0.

/BottomBleed

Enter a value for the amount of bleed allowed at the bottom margin of the logical page. The default value is 0.

/LeftBleed

Enter a value for the amount of bleed allowed at the left margin of the logical page. The default value is 0.

/RightBleed

Enter a value for the amount of bleed allowed at the right margin of the logical page. The default value is 0.

/HGutter

Enter a value for the horizontal gutter. The default value is 0.

/VGutter

Enter a value for the vertical gutter. The default value is 0.

/Across

Enter the number of logical pages across the sheet. The default value is 1.

/Down

Enter the number of logical pages down the sheet. The default value is 1.

/Rotate

Enter the degrees of rotation for the logical pages. The possible values are: 0, 90, 180, and 270 clockwise. The default value is 0. You can define the parameter as an array. The example is for head-to-toe printing on a 4-up page signature:

```
/Rotate [ 0 0 180 180 ]
```

/FillOrder

Choose the order for filling the logical pages:

Right Down	Left to right, then top to bottom, default
Left Down	Right to left, then top to bottom
Right Up	Left to right, then bottom to top
Left Up	Right to left, then bottom to top
Up Right	Bottom to top, then left to right
Down Right	Top to bottom, then left to right
Down Left	Top to bottom, then right to left
Up Left	Bottom to top, then right to left

SET LAYOUT

The Set Layout option accesses the Insert SETLAYOUT Command dialog. Use this dialog to insert the SETLAYOUT command at the current cursor position.

The SETLAYOUT Command Dialog allows entry of a previously defined layout, or the addition of new parameters.

These fields appear on the Insert SETLAYOUT Command dialog:

Layout Type

Choose:

Use Layout Name	To enter an existing Layout Name as defined on the Insert DEFINELAYOUT Command dialog.
Use Layout Parameters	To enter values for some or all of the parameters.

Refer to Define Layout for parameter definitions.

SET FONT

The Set Font option accesses the Insert SETFONT Command dialog. Use this dialog to specify the information to use for the font and then insert the font command at the current cursor position.

These fields appear on the Insert SetFont Command dialog:

Font Sample

Refer to Font and Effects Preview/Select/Sample in the "VI Design Pro GUI" chapter of this document for information on changing the sample font viewed here.

Font Name

Use this box to select the name of the font to use. This list includes all of the fonts that are currently available for use.

These options are also included to facilitate changing the font face to a different member of the same font family without having to respecify the Fontname:

/~REG	Regular font of current family
/~BLD	Bold font of current family
/~ITL	Italic font of current family
/~BDI	Bold Italic font of current family
/~CUR	Current font of current family

Font Type

Select one of these font types:

- Normal
- Microprint
- GlossMark

Specify Height and Width

The **Specify Height and Width** box is enabled only when you have selected "Normal" as the font type. Check Specify Height and Width to specify a different font size for the font height and width. When you check this box, the Font Height field is enabled.

Font Width

Enter a value specifying the font width. Enter a value that includes integers or real numbers. The font size is based on units of 1/72 points. When you enter 0, the font is automatically scaled based on the margins and grid that are specified in the SETMARGIN and SETGRID commands.

Initially, this field is labeled **FontSize**. When you check the Use X and Y size box, this field name displays as X FontSize and the font size value you enter applies only to the X (horizontal) axis.

Font Height

Enter a value specifying the font height. The size of the font to use for the Y (vertical) axis. Use a value that includes integers or real numbers. The font size is based on units of 1/72 points. When 0 is entered, the font is automatically scaled based on the margins and grid specified in the SETMARGIN and SETGRID commands. This field is only enabled when the Specify Height and Width box is checked.

SET FONT KERNING

The Set Font Kerning option accesses the Insert SETKERN Command dialog. Use this dialog to set the kerning options for all subsequent text imaged using one of the SHx commands, and insert a SETKERN command at the current cursor position.

More information about font kerning can be found in the VIPP® Language Reference Manual, and in Adding PostScript fonts.

These fields appear on the Insert SETKERN Command dialog:

Pair-wise Kerning

Use this box to select the pair-wise kerning option. Selections include:

0	Disable
null	Keep current
.5	Looser
1	Regular
1.5	Tight
2	Track Kerning

Generic Track Kerning

Use this box to select generic track kerning values:

0	Disable
null	Keep current
-3	Tightest
-2	Tighter
-1	Tight
1	Loose
2	Looser
3	Loosest

Track Kerning Degree

Use this box to define the track kerning degree. Choose one of these values:

0	Disable
null	Keep current
-3	Tightest
-2	Tighter

-1	Tight
1	Loose
2	Looser
3	Loosest

SET TEXT COLOR

The Set Text Color option accesses the Insert SETTXC Command dialog. Use this dialog to specify the information to use to insert a text color and then insert the text color command at the current cursor position.

Transparency level: enter 0 to 1

Tint: enter 0 to 1

These fields appear on the Insert **SETTXC** Command dialog:

Colorkey

Use the menu to select the name of the text Colorkey to use. The box on the right side of the dialog displays the color that you selected. This list includes all of the font Colorkeys that are currently available for use.

Pattern

Use the menu to select the name of the pattern to use. This list includes all of the patterns that are currently available for use.

SET TEXT BKGRD ATTRIBUTE

The Set Text Bkgrd Attribute option accesses the Insert a SETTXB Command dialog. Use this dialog to specify the information to use to insert a text background attribute and then insert the text background attribute command at the current cursor position.

This field appears on the Insert SETTXB Command dialog:

BAT Key

Use the menu to select the name of the text background attribute key to use. This list includes all of the text background attribute keys that are currently available for use.

A sample of the selected **BATKey** appears at the top of the dialog.

SET SUB/SUPERSCRIPT

The Set Sub/SuperScript option accesses the Insert SETTXS Command dialog. Use this dialog to specify the parameters to use when printing subscript or superscript characters.

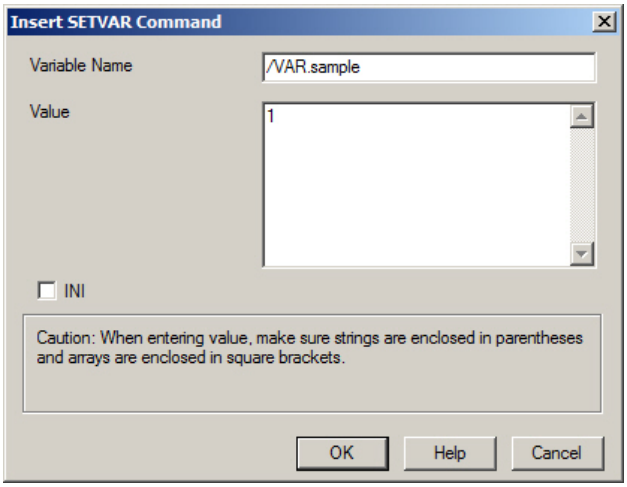
This field appears on the Insert SETTXS Command dialog:

Sub/Super Parameter

Choose the parameter to use or enter a numerical value.

SET VARIABLE

The Set Variable option accesses the Insert SETVAR Command dialog. Use this dialog to specify the information to use to set the value for a variable and then set the variable command at the current cursor position. After you have set a variable, store the variable and use it in any command in place of a string, number, or array parameter.



These fields appear on the Insert SETVAR Command dialog:

Variable Name

Enter the name of the variable to set. Enter any alphanumeric string of up to 20 characters.

Value

Enter the value to associate with the variable. Enter a string, a number, or an array.

- If a string is entered, enclose it in parentheses ( ).
- If an array is entered, enclose it in square brackets [ ].

INI

Check the **INI** box to specify that you only want the variable to be set if it is not already set. This is particularly useful when you are initializing a variable in a DBM.

STORE VARIABLE

The Store Variable option accesses the Insert STOREVAR Command dialog. Use this dialog to specify the information necessary to store a variable in a file for later use by the same or another application, then insert the stored variable command at the current cursor position.

These fields appear on the Insert STOREVAR Command dialog:

Variable Name

Enter the name of the variable to store. Enter any alphanumeric string of up to 20 characters.

Storefile Name

Enter the file name to use for the stored variable.

Multi-Instance VIeC Allowed

Enable this option to allow multi-instance when running VIeC (FreeFlow VI eCompose) jobs.

Project Allows File in first SETPPATH Directory

Enable this option when there is a file in the first `SETPPATH` directory for the job.

Append Data to File

Enable as appropriate for the job.

Text Mode

Enable as appropriate for the job.

SAVE CURRENT CONTEXT

The Save Current Context option accesses the Insert RSAVE Command dialog. Use this dialog to insert an RSAVE command at the current cursor position.

Use the **Insert This Command** box on this screen to insert the command at the current cursor position.

RESET CURRENT CONTEXT

The Reset Current Context option accesses the Insert RESET Command dialog. Use this dialog to insert a RESET command at the current cursor position.

The RESET command restores the VIPP® context to the initial default value or to the value stored by the last RSAVE command. This command also cancels all forms, fonts, etc.

Use the **Insert This Command** box on this screen to insert the command at the current cursor position.

SET DATE

The Set Date option accesses the Insert SETDATE Command dialog. Use this dialog to specify the information necessary to temporarily set the date variables.

These fields appear on the Insert SETDATE Command dialog:

Specify a Date

Select this option to enter a specific date and time by entering their value (integer only) in these fields:

Year	is the year (>1970).
Month	is the month (1-12).
Day	is the day (1-31).
Hour	is the hours (0-23).
Minute	is the minutes (0-59).
Second	is the seconds (0-59).

Specify Number of Days

Select this option to set the date using the number of days since January 1, 1970 as the basis. The entered value must be an integer.

Page Layout

The Smart Editor produces these options when Page Layout is selected from the Smart Editor menu:

Set Units	Set Page Orientation	Set Tab Positions
Set Coordinate Origin	Set Page Margins	Set Zebra Lines
Set Max Forms/BackForms	Set Page Frame	Set Column Width
Set Form/BackForm	Set Page Grid	Set Widow/Orphan Control
Shift Page Origin	Set Page Numbering	Set Linked Frames Mode
Shift Form Origin	Set LineFeed Increment	Go to Next Frame
OneUp/TwoUpPrinting	Set LineSpacing Value	Go to Specified Frame
Set Page Definitions	Set Tab Spacing	Initialize OMR Code for Mailer
Set Page Size		

SET UNITS

The Set Units option accesses the Insert SETUNIT Command dialog. Use this dialog to indicate the units of measure and then insert the unit of measure command at the current cursor position.

This field appears on the Insert SETUNIT Command dialog:

Units of Measure

Use this box to select the unit of measure to use. This is the unit of measure that is used for all commands except the **SETGEP** commands; use **SETUNIT** to specify this information for the **SETGEP** command.

This box provides the following options:

DOT3	To use 300 dots per inch as the graphical unit of measure.
PELS	To use picture elements (pels), or pixels, as the graphical unit of measure.
POINT	To use points as the graphical unit of measure.
CM	To use centimeters as the graphical unit of measure.
MM	To use millimeters as the graphical unit of measure.
INCH	To use inches as the graphical unit of measure.

SET COORDINATE ORIGIN

The Set Coordinate Origin option accesses the Insert Coordinate Origin dialog. Use this dialog to specify coordinate origin information and then insert the coordinate origin command at the current cursor position.

This field appears on the Insert Coordinate Origin dialog:

Coordinate Origin

Use this box to select the coordinate origin to use:

ORIBL

To set the origin at the bottom left corner for all coordinates, except for the Record Processing Entry (RPE).

ORITL

To set the origin at the top left corner for all coordinates.

SET MAX FORMS/BACKFORMS

The Set Max Forms/BackForms option accesses the Insert a **SETMAXFORM** Command dialog. Use this dialog to specify the information to use to specify the number of form planes and backform planes for a page and then insert the form plane and backform plane command at the current cursor position.

These fields appear on the Insert **SetMaxForm** Command dialog:

Max Forms (Planes)

Enter the maximum number of form planes allowed on the page. This indicates the number of forms that can be imaged on top of each other on a single page. Enter a value between 0 and maxplanenumber-1, associated forms are imaged in that order. PostScript elements are opaque.

Apply to Back Forms

Check the **Apply to Back Forms** box to specify that the maximum plane value you entered in the Max Forms (Planes) field will apply to back form planes.

SET FORM/BACKFORM

The Set Form/BackForm option accesses the Insert a SETFORM Command dialog. Use this dialog to specify the information to use to insert a form or backform and then insert the form command at the current cursor position. After you perform this task, a new form tab is created in the Resource Notebook section of VI Design Pro's window and the information for the form displays on the tab.

These fields appear on the Insert SETFORM Command dialog:

Formname

Enter the name of the form to insert, or use Browse to access the Please choose the file to load window and select the form to insert. Use Preview to see a graphical representation of the selected form.

Specify Planenumber

Check the **Specify Planenumber** box to enter plane number information for this form. When you check this box, the Plane Number field is enabled.

Plane Number

This field is enabled when you check the Specify Planenumber box. Use this field to enter the plane number for this form. The value you enter specifies the order in which this form is imaged on the page in relation to the other forms imaged on the page.

When you enter a value in this field, the value must be less than or equal to the maximum number of planes that can be imaged on a page (the value entered in the Max Forms (Planes) field on the Insert SETMAXFORM

Command dialog). For example, when you use the Insert SETMAXFORM Command dialog to specify that a page can have seven planes, use this field to specify that this particular form is plane five.

Specify Copy Selection

Check the **Specify Copy Selection** box to enter copy selection information for the form. When you check this box, the Copies Selection field is enabled.

Copies Selection

This field is enabled when you check the Specify Copy Selection box. Use this field to enter the values that correspond to the pages on which this form is imaged. For example, [1 5] indicates that the form is imaged only on copies one and five.

When you enter a value in this field, the value must be less than or equal to the maximum number of copies that will be printed (the value entered in the Number of Copies field on the Insert SETCYCLECOPY dialog). When you do not enter a value in this field, the form is imaged on all copies.

Set Back Side Form

Check the **Set Back Side Form** box to apply the values entered on this screen to a back side form. This option changes the command from SETFORM to SETBFORM. For duplex mode jobs this causes the static form to print on the back side of each page and the variable data on the front side.

SHIFT PAGE ORIGIN

The Shift Page Origin option accesses the Insert SHIFT Command dialog. Use this dialog to specify page shift information and then insert the page shift command at the current cursor position.

This command defines the horizontal (X) and vertical (Y) shift values for the front and back pages of a job. When using this command, all of the page content is shifted from the bottom left origin on the horizontal and vertical axis, based on the values specified for the command (either positive or negative). The specified values always refer to the bottom left origin of the portrait sheet, regardless of the page orientation. This command is useful to set the left or top margins when you are binding a job in duplex mode.

These fields appear on the Insert Shift Command dialog:

X FrontSide Shift

Enter the number of units by which the information will shift on the X axis (horizontal) on the front page.

Y FrontSide Shift

Enter the number of units by which the information will shift on the Y axis (vertical) on the front page.

X BackSide Shift

Enter the number of units by which the information will shift on the X axis (horizontal) on the back page.

Y BackSide Shift

Enter the number of units by which the information will shift on the Y axis (vertical) on the back page.

SHIFT FORM ORIGIN

The Shift Form Origin option accesses the Insert FORMSHIFT Command dialog. Use this dialog to specify form shift information and then insert the form shift command at the current cursor position.

This command allows you to adjust the origin in a VIPP® form and is only in effect inside a form definition (between curly braces) and after the orientation command.

These fields appear on the Insert FormShift Command dialog:

X Shift

Enter the number of units by which to shift the X axis (horizontally).

Y Shift

Enter the number of units by which to shift the Y axis (vertically).

ONEUP/TWOUPPRINTING

The OneUp/TwoUp Printing option accesses the Insert 1Up/2Up Option dialog. Use this dialog to print using OneUp or TwoUp mode and then insert either a OneUp or TwoUp printing command at the current cursor position.

This field appears on the Insert 1Up/2Up Option dialog:

1Up/2Up Option

Use this box to select the printing option to use. This list provides the following options:

ONEUP	To use OneUp mode, which permits a single logical page to be imaged on each physical page. Use this option to cancel TWOUP or Multi-Up modes.
TWOUP	To use TwoUp mode, which permits two reduced logical pages to be printed on top of each other (LAND/ILAND) or side by side (PORT/IPORT) on the same physical page. Use this option with SETCYCLECOPY and COLLATE_off to produce two reduced copies of a document on a normal size sheet of paper.

SET PAGE DEFINITIONS

The Set Page Definitions option accesses the Insert **SETPAGEDEF** Command dialog. Use this dialog to define different sets of frames, forms, media and other layout settings for consecutive pages. The layouts are applied in the order they are defined in a cyclical manner unless the last layout is followed by the /R key. When you use the /R key, the last layout is applied indefinitely.

Use the right hand dialog to manually enter the definitions for the page layout highlighted on the left hand screen. Refer to the *VIPP® Language Overview* in the *VIPP® Language Reference Manual* for **SETPAGEDEF** syntax and examples.

SET PAGE SIZE

The Set Page Size option accesses the Insert SETPAGESIZE Command dialog. Use this dialog to specify page size information and then insert the page size command at the current cursor position.

All page layout settings such as orientation, grid, and margins are based on these values. When you do not specify the page size values, the default values are the default page size for the imaging device. An error occurs when this command is placed incorrectly (for example, in the middle of a page). On Level 2 printers, this command causes subsequent pages to print on the correct media.

These fields appear on the Insert SETPAGESIZE Command dialog:

Page Width

Enter the value for the page width to use. In general, this refers to the short edge of the page which is the horizontal, X, axis in portrait orientation.

Page Height

Enter the value for the page height to use. In general, refers to the long edge of the page which is the vertical, Y, axis in portrait orientation.

SET PAGE ORIENTATION

The Set Page Orientation option accesses the Insert Page Orientation dialog. Use this dialog to specify page orientation information and then insert the page orientation command at the current cursor position.

This field appears on the Insert Page Orientation dialog:

Page Orientation

Use this box to select the page orientation to use:

PORT	Use portrait orientation.
IPORT	Use reverse portrait orientation.
LAND	Use landscape orientation.
ILAND	Use reverse landscape orientation.

SET PAGE MARGINS

The Set Page Margins option accesses the Insert **SETMARGIN** Command dialog. Use this dialog to specify page margin information and then insert the page margins command at the current cursor position.

Note: When using this command, measure the bottom and right margins from the bottom and right edges of the page. Otherwise, the font can be scaled incorrectly when using auto-scale mode.

These fields appear on the Insert **SetMargin** Command dialog:

Top Margin

Enter the margin for the top of the page.

Bottom Margin

Enter the margin for the bottom of the page.

Left Margin

Enter the margin for the left side of the page.

Right Margin

Enter the margin for the right margin of the page.

SET PAGE FRAME

The Set Page Frame option accesses the Insert SETFRAME Command dialog. Use this dialog to specify frame information and then insert the frame command at the current cursor position. This command draws an overall frame around the current page and all following pages.

These fields appear on the Insert SETFRAME Command dialog:

Line Width

Enter the line width to use for the frame. This is the width of the line used to draw the frame. A value of 0 indicates no frame.

Offset from Margins

Specify the amount of space between the page margins and the frame.

Line Color

Use the menu to select the color to use for the frame border. The box on the right side of this field displays the color that you selected. This list includes all of the colors currently available for use.

Line Pattern

Use the menut to select the pattern to use. This list includes all of the patterns currently available for use.

Corner Radius

Specify the radius to use for the corners of the frame. A value of 0 specifies a square.

SET PAGE GRID

The Set Page Grid option accesses the Insert SETGRID Command dialog. Use this dialog to specify characters per line and lines per page information and then insert the characters per line and lines per page command at the current cursor position.

These fields appear on the Insert SETGRID Command dialog:

Characters per Line

Enter the number of characters per line to use on the page.

Lines per Page

Enter the number of lines per page to use on the page.

SET PAGE NUMBERING

The Set Page Numbering option accesses the Insert SETPAGENUMBER Command dialog. Use this dialog to specify page numbering information and then insert the page numbering command at the current cursor position.

These fields appear on the Insert SETPAGENUMBER Command dialog:

Page Number Format

Enter the page numbering format to use (for example, (Page #)). Enter any string in this field, using the number sign character (#) to represent the page number in the string.The maximum page number is limited to six characters. Use multiple # characters to print leading zeros in the page numbers (for example (Page ###) prints

as Page 001).

First Page Number

Enter the value for the first page number to use. Enter zero or a negative value in this field. However, when using zero or a negative value, any page numbers that are less than one do not print.

Use Position Parameter

Check the **Use Position Parameter** box to use the Position field to specify the relative position at which the page number will print. When you check this box, the Position field is enabled. You must check either this box or the **Use X and Y Coords** box to specify the page number positioning.

Position

Use this box to select the relative position at which the page number is placed on the printed page. This field is only enabled when you check the Use Positioning Parameter box.

This list provides the following options:

0	Don't print page number	Do not print page numbers on the page.
1	Bottom Center	Print the page number centered at the bottom of the printed page.
2	Bottom Right	Print the page number on the right side at the bottom of the printed page.
3	Top Center	Print the page number to print centered at the top of the printed page.
4	Top Right	Print the page number to print on the right side at the top of the printed page.

Use X and Y Coords

Check the **Use X and Y Coords** box to specify an absolute position for the page numbers. When you check this box, the X Coordinate, Y Coordinate, and Alignment fields are enabled. You must check either this box or the **Use Position Parameter** box to specify the page number positioning.

X Coordinate

Enter the X (horizontal) coordinate at which the page number will print. This field is only enabled when you check the Use X and Y Coords box.

Y Coordinate

Enter the Y (vertical) coordinate at which the page number will print. This field is only enabled when you check the Use X and Y Coords box.

Alignment

Use the menu to select the alignment to use for the page number at the absolute coordinates specified in the X Coordinate and Y Coordinate fields. This field is only enabled when you select the **Use X and Y Coords** check box.

This list provides the following options:

5	Left	Align the page numbers on the left at the specified X and Y coordinates.
6	Right	Align the page numbers on the right at the specified X and Y coordinates.
7	Center	Align the page numbers in the center at the specified X and Y coordinates.

Use Rotate Parameter

Select the **Use Rotate Parameter** check box to specify a rotation percentage. When you select this check box, the Rotation Degrees (+ is CCW) field is enabled.

Rotation Degrees (+ is CCW)

Enter the degree to turn the page number. When you enter a positive number, the page number is rotated counterclockwise. When you enter a negative number, the page number is rotated clockwise. This field is only enabled when you select the **Use Rotate Parameter** check box.

SET LINEFEED INCREMENT

The Set LineFeed Increment option accesses the Insert SETLFI Command dialog. Use this dialog to specify line feed information and then insert the line feed command at the current cursor position. The line feed increment is the number of lines that are skipped before or after each record.

This field appears on the Insert SETLFI Command dialog:

Lines to Skip

Enter the number of lines to skip in each line feed (equivalent to the number of carriage returns). When you enter a positive value, the lines are skipped after each record; when you enter a negative value, the lines are skipped before each record. The value you enter must be an integer.

SET LINESPACING VALUE

The Set LineSpacing Value option accesses the Insert SETLSP Command dialog. Use this dialog to specify line spacing information and then insert the line spacing command at the current cursor position.

This field appears on the Insert SetLSp Command dialog:

Line Spacing Value

Enter the amount of space between each line of type (also known as the leading).

SET TAB SPACING

The Set Tab Spacing option accesses the Insert SETTAB Command dialog. Use this dialog to specify the information about tab spacing.

Note: This command is intended for use only with fixed pitch fonts.

These fields appear on the Insert SETTAB Command dialog:

Tab Spacing

Enter the number of characters between each tab, for example, a value of 8 specifies a tab stop every eight characters.

Tab Using Current Units

Select the **Tab Using Current Units** check box to specify the tab spacing will be based on the current units.

SET TAB POSITIONS

The Set Tab Position option accesses the Insert SETTABS Command dialog. Use this dialog to specify information about tab alignment and position.

These fields appear on the Insert SETTABS Command dialog:

Tab Alignment

Select from these alignment options:

- Left
- Right
- Center

Tab Position

Enter a value in points for the position of the tab relative to the current main print position.

Leader Character

Enter the character to use as the leader character for this tab position.

Alignment Character

Enter the alignment character used for this tab position.

Default Tab Spacing

Enter the number of spaces to be used as the default distance between tabs. This is the space used each time a tab character is found and processed after all preceding tab stops in the set have been used.

Delete

Click the **Delete** button to delete the highlighted entry in the screen to the left of the buttons. Click **OK** to insert the **SETTABS** command into the application at the current cursor position.

Insert

Click the **Insert** button to insert the values entered in the Tab Alignment and Tab Position boxes, into the screen to the left of the buttons. Click **OK** to insert the **SETTABS** command into the application at the current cursor position.

Replace

Click the **Replace** button to replace the highlighted values in the screen to the left of the buttons, with the values entered in the Tab Alignment and Tab Position boxes. Click **OK** to insert the **SETTABS** command into the application at the current cursor position.

Append

Click the **Append** button to append additional tabs to the list of tabs in screen to the left of the buttons. The added tabs are defined with the values entered in the Tab Alignment and Tab Position boxes. Click **OK** to insert the **SETTABS** command into the application at the current cursor position.

SET ZEBRA LINES

The **Set Zebra Lines** option accesses the Insert SETZEBRA Command dialog. Use this dialog to specify information for a shaded background box or greenbar printing.

These fields appear on the Insert SETZEBRA Command dialog:

Colorkey

Use the menu to select the name of the Colorkey to use for the background printing. The box on the right side of this field displays the color that you selected. This list includes all of the Colorkeys that are currently available for use.

Pattern Key

Use the drop-down list to select the name of the pattern to use for the background printing. This list includes all of the patterns that are currently available for use.

Lines with Zebra

Enter the number of lines used in background printing. This field and the Lines without Zebra field define the sequence of the zebra printing, which is the sequence of lines with and without zebra printing.

Lines without Zebra

Enter the number of lines for which background printing will not be used. This field and the Lines with Zebra field define the sequence of the zebra printing (the sequence of lines with and without zebra printing).

Zebra Only for Lines Printed

Select the **Zebra Only for Lines Printed** check box to vary the number of zebra lines depending on the number of lines that are printed on the page. When you do not select this check box, the number of zebra lines is constant and is controlled by the number of lines per page that is set using the **SETGRID** command.

SET COLUMN WIDTH

The Set Column Width option accesses the Insert SETCOLWIDTH Command dialog. Use this dialog to specify column width information and then insert the column width command at the current cursor position.

This field appears on the Insert SetColWidth Command dialog:

Column Width

Enter the width to use for each column. The value is entered in "current units".

SET WIDOW/ORPHAN CONTROL

The Set Widow/Orphan Control option accesses the Insert SETSKIP Command dialog, allowing you to specify a Widow/Orphan command at the current cursor position.

These fields appear on the Insert SETSKIP Command dialog:

Printer Control Code (PCC)

Enter a string of any length. If the beginning of a line matches this string then the associated skip action will occur. The string remains as part of the printable data.

Pre-Skip

Enter either the number of lines to skip or a key to be assigned later by **SETVFU**.

Print-Action

Select true to print the record, false if you do not want to print the record.

Post-Skip

Enter either the number of lines to skip or a key to be assigned later by **SETVFU**.

Bottom of Form (BOF)

When a value is entered in this dialog a skip to next page (before print) will occur when the number of remaining lines on the page after pre-skip is less than this number. The number of lines per page is defined by the **SETGRID** command.

Top of Form (TOF)

Enter a line number other than 0 to force that line to be the target line for the top of the form, regardless of the pre-skip.

Buttons

This box displays all of the linked frame information you have created. Use the buttons available to the right of the box to change, add, and delete linked frame information as follows:

Delete	Use this button to remove selected information from the box.
Insert	Use this button to insert the values defined in the Insert **SETSKIP** Command fields.
Replace	Use this button to replace the currently selected value with information changed in Insert **SETSKIP** Command fields.
Append	Use this button to insert the current information in the Insert **SETSKIP** Command fields.

SET LINKED FRAMES MODE

The Set Linked Frames Mode option accesses the Insert SETLKF Command dialog, allowing you to define a collection of rectangular frames on a page into which text or graphics can be placed.

These fields appear on the Insert SETLKF Command dialog:

Horizontal

Enter the horizontal coordinates of the top left corner of the new linked frame relative to the current origin (top left or bottom left) of the page. Units of measure are the currently set values.

Vertical

Enter the vertical coordinates of the top left corner of the new linked frame relative to the current origin (top left or bottom left) of the page. Units of measure are the currently set values.

Width

Enter the value for the width of the new linked frame.

Height

Enter the value for the height of the new linked frame.

Rotate

Enter the degree of rotation for the new linked frame.

Comment

Use this field for comments.

Buttons

This box displays all of the linked frame information you have created. Use the buttons available to the right of the box to change, add, and delete linked frame information as follows:

Delete	Remove selected information from the box.
Insert	Insert the values defined in the position, size, and rotation fields.
Replace	Replace the currently selected value with information changed in the position, size, and rotation fields.
Append	Insert the current information in the position, size, and rotation fields at the end of the listed values.

GO TO NEXT FRAME

The Go to Next Frame option accesses the Insert **NEWFRAME** Command dialog, allowing you to start placing elements in the next available frame.

Use the **Insert This Command** box on this screen to insert the command at the current cursor position.

GO TO SPECIFIED FRAME

The Go to Specified Frame option accesses the Insert GOTOFRAME Command dialog, allowing you to start placing elements in a specific frame.

This field appears on the Insert **GOTOFRAME** Command dialog:

Frame number

Enter the number of the frame to access.

INITIALIZE OMR CODE FOR MAILER

The initialize OMR Code for Mailer option accesses the Insert OMRINIT Command dialog, which initializes OMR code processing. An OMR code is a sequence of small vertical bars used to drive an automated mailing system.

These fields appear on the Insert **OMRINIT** Command dialog:

Plex

Enter one of:

/F	OMR code is intended on front pages
/B	OMR code is intended on back pages

Feed Count

Enter one of these values:

1–255	feed envelope after that number of pages
0	no feed for the next pages

Fold Count

Enter one of these values:

1–255	intermediate fold after that number of pages
0	no intermediate fold for the next pages

Annexes

Enter a value. Each power of 2 component of the inserted integer represents a bar intended to trigger an insertion or a side action.

Page Marking

The Smart Editor produces these options when Page Marking is selected from the Smart Editor menu

Insert Image	Draw Path (rounded corners)	Move X and Y Position
Insert Segment	Draw PDF417 Barcode	Set Indentation (for SHP)
Insert Text	Draw MaxiCode Barcode	Cancel Clipping Area
Insert Text on Path	Draw DataMatrix Barcode	Save Secondary Print Position
Insert Distorted Text	Draw Aztec Barcode	Insert RUN (VIPP® or PostScript)
Insert Table	Draw QRCode Barcode	Insert RUNDD (Decomposed Docs)
Insert Table Row	Draw USPS 4-State Barcode	Insert RUNTIF (Multi-page TIFF)
Draw Box/Circle/Ellipse	Draw Linear Numeric Barcode	Set Ignore BadTiffs Option
Draw Polygon	Fill OMR Grid	Set Reverse Mode Option
Draw DDG Charts (bar/curve/pie/ Pareto/radar)	Draw Cut Marks	Set TIFF Orientation Option
Draw Path	Set Params (DDG, FILLOMR, Format...)	

INSERT IMAGE

The Insert Image option accesses the Insert ICALL Command dialog. Use this dialog to specify image information and then insert the image command at the current cursor position.

After you perform this task in Line mode, the image displays on the image tab in the Resource Notebook section of VI Design Pro's window.

These fields appear on the Insert ICALL Command dialog:

File Name

Enter the name of the image to insert, or use Browse to access the Please choose the file to load window and select the image to insert. Use Preview to see a graphical representation of the selected image.

Scale Factor (%)

Enter the percentage to resize the image on the page (for example, 100 indicatesl 00 percent). This allows you to make the image larger or smaller proportionally.

Rotation Degrees (+ is CCW)

Enter the degree to turn the image. When you enter a positive number, the image is turned counterclockwise; when you enter a negative number, the image is turned clockwise.

Use Alignment

Check the **Use Alignment** box to select alignment criteria for the image. When you check this box, the Alignment field is enabled.

Alignment

Use this box to select the position at which to align the image. This field is only enabled when you check the Use Alignment box. These options are currently available:

0	Top Left
1	Top Right
2	Top Center
10	Bottom Left
11	Bottom Right
12	Bottom Center
20	Center Left
21	Center Right
22	Center Center

Specify X Position

Check the **Specify X Position** box to enter the X (horizontal) axis position for the image. When you check this box, the X Position field is enabled.

Specify Relative X Position

Check the **Specify Relative X Position** box to specify a secondary X (horizontal) axis position. This position is relative to the last primary horizontal position (defined in the last MOVETO or the current frame). This generates a MOVEHR command.

X Position

Enter the position on the X axis (horizontal) at which to place the image. This field is enabled when you check the Specify X Position, Specify Relative X Position, or Specify X+Y Position box.

Dot Leading GEPKey

Enter the GEPKey description.

The GEP keys used for the dot leading function are a subset of the full GEP key list (as used in other dialogs like DRAWB). The dot-leading subset of GEP keys excludes the full-color GEP keys and only includes those that are line-style (solid, dashed, or bold).

Specify X + Y Position

Check the **Specify X + Y Position** box to enter the X (horizontal) axis and the Y (vertical) axis positions for the image. When you check this box, the X Position and the Y Position fields are enabled.

Position

Enter the position on the Y axis (vertical) at which to place the image. This field is enabled when you check Specify X+Y Position.

INSERT SEGMENT

The Insert Segment option accesses the Insert SCALL dialog. Use this dialog to specify information to use for the segment and then insert the segment command at the current cursor position.

After you perform this task, a .seg tab is created for the segment in the Resource Notebook section of VI Design Pro's window.

When the Insert SCALL Command dialog is accessed the accessible fields vary according to the Encapsulation method selected. When Use FCALL is selected only the X, Y, and X+Y positions may be specified for the selected File Name.

These fields appear on the Insert SCALL Command dialog:

File Name

Enter the name of the segment file to insert, or use Browse to access the Please choose the file to load window and select the segment to insert. Use Preview to see a graphical representation of the selected segment. Refer to the *VIPP® Language Reference Manual* for information about options available for use when inserting PDF files.

Specify Scale Factor

Check the **Specify Scale Factor** box to resize the segment on the page. When you check this box, the Horizontal and Vertical Scale (%) fields are enabled.

Horizontal Scale(%)

Enter the percentage to resize the horizontal dimension of the segment (for example, 100 indicates 100 percent). This allows you to make the segment larger or smaller. To ensure that the segment is scaled proportionally enter the same value for both the Horizontal and Vertical scales.

Vertical Scale(%)

Enter the percentage to resize the vertical dimension of the segment (for example, 100 indicates 100 percent). This allows you to make the segment larger or smaller. To ensure that the segment is scaled proportionally enter the same value for both the Horizontal and Vertical scales.

Specify Rotation

Check the **Specify Rotation** box to specify rotation degrees.

Rotation Degrees (+ is CCW)

Enter the degree to turn the segment. When you enter a positive number, the image is turned counterclockwise; when you enter a negative number, the image is turned clockwise.

Use Alignment

Check the **Use Alignment** box to choose the position at which the segment will be aligned.

Alignment

Use the drop-down list to select the position at which to align the segment. These options are currently available:

0	Top Left
1	Top Right
2	Top Center

10	Bottom Left
11	Bottom Right
12	Bottom Center
20	Center Left
21	Center Right
22	Center Center

Use Resource Caching

Check the **Use Resource Caching** box to enable Resource Caching. Enabling this option also activates the Use Fit-in Box option.

Use Fit in box Option

Select the **Use Fit in box Option** box to enable the Fit-in Box option. Enabling this box activates the Alignment, Extra Alignment, Box Width, Box Height, and Rotation Degrees (within box) fields.

Extra Alignment

Select the **Extra Alignment** option to use the following options. These options are only available when the Use Fit in box option is selected:

None	
Fill in box	Use this option to scale the image isomorphically so that it fills the entire box. When the width/height ratios of the box and the image differ, the part of the image that falls outside of the box is cropped. In this case the alignment options are used to choose which part of the image (corners, left, right, top, bottom, or center) is kept visible in the box.
Stretch in box	Use this option to scale the image anamorphically so that it fills the entire box. When the width/height ratios of the box and the image differ, the image is stretched either vertically or horizontally. In this case the alignment options are useless.

Box Width

Enter the box width using currently defined units of measurement.

Box Height

Enter the box height using currently defined units of measurement.

Rotation Degrees (within box)

Select the degrees of rotation to use for the segment within the box.

Specify X Position

Check the **Specify X Position** box to enter the X (horizontal) axis position for the segment. This is the same as placing an x MOVEH command before the SCALL or FCALL command. When you check this box, the X Position field is enabled.

Specify Relative X Position

Check the **Specify Relative X Position** box to specify a secondary X (horizontal) axis position for the segment. This is the same as placing an x MOVEHR command before the SCALL or FCALL command. When you check this box, the X Position field is enabled.

X Position

Enter the position on the X axis (horizontal) at which to place the segment. This field is enabled when you check the Specify X Position, Specify Relative X Position, or the Specify X+Y Position box.

Dot Leading GEPKey

Enter the GEPKey description.

The GEP keys used for the dot leading function are a subset of the full GEP key list (as used in other dialogs like DRAWB). The dot-leading subset of GEP keys excludes the full-color GEP keys and only includes those that are line-style (solid, dashed, or bold).

Specify X + Y Position

Check the **Specify X + Y Position** box to enter the X (horizontal) axis and the Y (vertical) axis positions for the image. This is the same as placing an x y MOVEH command before the SCALL or FCALL command. When you check this box, the X Position and the Y Position fields are enabled.

Y Position

Enter the position on the Y axis (vertical) at which to place the segment. This field is enabled when you check the Specify X+Y Position box.

Encapsulation

Use the buttons to select the method used to place this segment, either SCALL (encapsulated) or FCALL (not encapsulated).

Use SCALL (segment will not produce side effects)

Select this button to use SCALL to place the segment. SCALL images the segment on the current page, placing the origin (0,0) of the segment at the secondary print position. SCALL is encapsulated, meaning that it has no side effect and that the current print positions remain unchanged. To print paragraphs down the page, use FCALL.

Use FCALL (segment can produce side effects)

Select this button to use FCALL to place the segment. FCALL executes a segment using the current context such as font, print or position. FCALL is not encapsulated and may cause side effects.

INSERT TEXT

The Insert Text option accesses the Insert a Show String Command dialog. Use this dialog to specify text string information and then insert the text string command at the current cursor position.

The title and options available on the Insert a Show String Command window vary depending upon the selected command. The dialog shown here is a composite of all command types, boxes will be greyed out when they are not applicable to the command type selected.

These fields appear on the Insert a Show String Command dialog:

Command Type

Select the button that corresponds to the type of text string command to enter. This table describes the options enabled for each choice:

WHEN THIS COMMAND TYPE IS CHOSEN:	THESE FIELDS ARE ENABLED:
Regular Command (SHL) — Allows you to use a basic text string command.	String to Show Print Position (Main or Secondary) Text Alignment (Left or Top, Right or Bottom, Center, or Justified) Specify X Position, Specify Relative X Position, or Specify X+Y Position
Use GEPkey/Rotation (SHX) — Allows you to specify Graphic Element Property (GEP) key and rotation information for the text string command.	String to Show Print Position (Main) Rotation (degrees) Color Type GEP key Color Pattern Text Alignment (Left or Top, Right or Bottom, Center, XYcenter (ucase), or XY Center (lcase)) Specify X Position, Specify Relative X Position, or Specify X+Y Position
Use Font/Color Switching (SHMF) — Allows you to specify font and color switching information for the text string command.	String to Show Print Position (Main or Secondary) Specify Column Width Column Width Vertically Set Latin Text Text Alignment (Left or Top, Right or Bottom, Center, Justified, or Decimal Point) SHMF/SHP Alignment Options (None, Fit in width, Stretch in width) Specify X Position, Specify Relative X Position, or Specify X+Y Position

WHEN THIS COMMAND TYPE IS CHOSEN:	THESE FIELDS ARE ENABLED:
Use Word Wrap/Multi Strings (SHP) — Allows you to specify word wrap and m ulti string information for the text string command.	String to Show Print Position (Main or Secondary) Specify Column Width Column Width Use Text-In-Box Option Box Width Box Height Line Spacing Word Wrapping and Alignment Vertically Set Latin Text SHP Vertical Alignment Text Alignment (Left or Top, Right or Bottom, Center, Justified, Right-align Last Line, Center Last Line, or Justify All Lines) SHMF/SHP Alignment Options (None, Fit in width, Stretch in width, Wrap and Fit in width, Wrap and Stretch in width) SHP Alignment Options (Strip Blanks, Treat Newline Characters as Spaces, Allow Wrapping on Hyphen characters) Specify X Position, Specify Relative X Position, or Specify X+Y Position
Truncate Strings to Column Width (SHT) — Allows you to automatically truncate text strings to the width of the columns.	String to Show Print Position (Main or Secondary) Specify Column Width Column Width Word Wrapping and Alignment Vertically Set Latin Text Text Alignment (Left or Top, Right or Bottom, Center, or Justified) Specify X Position, Specify Relative X Position, or Specify X+Y Position

String to Show

Enter the text to insert. In general, there are not restrictions on the values you enter in this field. However,

parentheses must be used in sets (for example, each opening parenthesis must have a matching closing parenthesis). Multiple strings must be entered in the format [(string1) (string2)].

Alternatively, place the cursor in the "String to Show" box and right-click to display options that will list DataBase field names, Variables defined with SETVAR in your application, System-Defined variables or Date and Time built-in variables. Select the variable to enter as the text string.

Print Position

Select the button that represents the print position at which to align the text string:

Main	align the text string at the main (SHL) print position.
Secondary	align the text string at the secondary (SH) print position.

Rotation (degrees)

Enter the degree by which to turn the image. When you enter a positive number, the image is turned counterclockwise; when you enter a negative number, the image is turned clockwise.

Color Type

Select either GEPKey or Color/Pattern from the drop-down list.

GEP key

This box is enabled when Color Type = GEPKey. Use this box to select the Graphic Element Property (GEP) key to use. The box on the right side of this field displays the GEPkey or Color and Pattern that you selected. The list includes all of the GEP keys currently available for use.

Color

This box is enabled when Color Type = Color/Pattern. Use this box to select the Colorkey to use. The box on the right side of this field displays the Color that you selected. The list includes all of the Colorkeys currently available for use.

Pattern

This box is enabled when Color Type = Color/Pattern. Use this box to select the PATkey to use. The box on the right side of this field displays the Color and Pattern that you selected. The list includes all of the PATkeys currently available for use.

Specify Column Width

Check the **Specify Column Width** box to enter the column width information for the text string. When you check this box, the Column Width field is enabled.

Column Width

Enter the width to use for each column. This field is only enabled when you check the Specify Column Width box.

Use Text-In-Box Option

This selection is only available when the command type "Use Word Wrap/Multi Strings" is selected. When this option is selected, the box width, box height and line spacing fields are enabled.

Box Width

Enter the width of the box into which text will be placed.

Box Height

Enter the height of the box into which text will be placed.

Line Spacing

Enter the line spacing value to use for the Text-In-Box option.

Word Wrapping and Alignment

Select one of the following options:

- Original Rules (default)
- Wrap down (Asian rules)
- Wrap Up (Asian rules)
- Wrap Up and Hanging Punctuation (Asian rules)
- Hanging Punctuation (Asian rules)
- Apply transform on each line (Arabic rules)
- Apply transform on each line and use different font for non-Arabic characters (Arabic rules)
- Apply transform on each line and replace European digits with Hindi digits (Arabic rules)

Vertically Set Latin Text

Select one of the following options:

- Disable Latin Text Processing (default)
- Set Horizontal-in-Vertical
- Set Rotated 90 Degrees Clockwise
- Set Conversion
- Set Conversion and Horizontal-in-Vertical
- Set Conversion and 90 Degrees Clockwise

SHP Vertical Alignment

Use this box to define the SHP vertical alignment, options are:

- Top (default)
- Bottom
- Vertical Center

Text Alignment

Text alignment options vary with the selected command type. Select the button that represents the text alignment for the text string:

Left or Top	Align the text on the left or top margin.
Right or Bottom	Align the text on the right or bottom margin.
Center	Center the text.
Justified	Align the text on the left and the right margin.

Decimal point	Align the text on the decimal point (only available for use with an SHMF command).
Right-align Last Line	Right align the last line of the text string.
XYcenter (ucase)	Center the text on the X (horizontal) and Y (vertical) axis in uppercase text.
Center Last Line	Center the last line of the text string.
XYcenter (lcase)	Center the text on the X (horizontal) and Y (vertical) axis in lowercase text.
Justify All lines	Justify all of the lines of text.

SHMF/SHP Alignment Options

Select the button that represents the extra alignment option to use. These options are only available when the Use Font/Color Switching, or Use Word Wrap/Multi Strings option is selected:

NONE	
Fit in width	When this option is enabled the current font will be scaled on the horizontal axis so that the printed string fits into the current column width.
Stretch in width	When this option is enabled the current font will be scaled on the horizontal axis so that the printed string entirely fills the current column width.
Wrap and Fit in width	When this option is enabled the current font will wrap in the text box as well as being scaled on the horizontal axis so that the printed string fits into the current column width.
Wrap and Stretch in width	When this option is enabled the current font will wrap in the text box as well as being scaled on the horizontal axis so that the printed string entirely fills the current column width.

SHP Alignment Options

Select the button that represents the extra alignment option to use. These options are only available when the Use Font/Color Switching, or Use Word Wrap/Multi Strings option is selected:

Specify X Position

Strip Blanks	When this option is enabled the leading and trailing blanks are stripped from delimited fields.
Treat Newline Characters as Spaces	When this option is enabled newline characters will be treated as spaces.
Allow wrapping on Hyphen character	When this option is enabled line wrapping can occur at a Hyphen character.

Check the **Specify X Position** box to enter the X (horizontal) axis position for the text only. When you check this box, the X Position field is enabled. This generates a MOVEH command before the SHx commands.

Specify Relative X Position

Check the **Specify Relative X Position** box to specify a secondary X (horizontal) axis position. This position is relative to the last primary horizontal position (defined in the last MOVETO or the current frame). This generates a MOVEHR command.

Dot Leading GEPKey

Enter the GEPKey description.

The GEP keys used for the dot leading function are a subset of the full GEP key list (as used in other dialogs like DRAWB). The dot-leading subset of GEP keys excludes the full-color GEP keys and only includes those that are line-style (solid, dashed, or bold).

X Position

Enter the position on the X axis (horizontal) at which to place the text. This field is enabled when you check the Specify X Position or the Specify X + Y Position box.

Specify X + Y Position

Check the **Specify X + Y Position** box to enter the X (horizontal) axis and the Y (vertical) axis positions for the image. When you check this box, the X Position and the Y Position fields are enabled. This generates a MOVE command.

Y Position

Enter the position on the **Y** axis (vertical) at which to place the text. This field is enabled when you check the Specify X + Y Position box.

INSERT TEXT ON PATH

The Insert Text on Path option accesses the Insert SHPATH Command dialog. Use this option to define the offset and alignment for text that will print along a path. Refer to Draw Path for information about defining the path on which the text is placed.

These fields appear on the Insert SHPATH Command dialog:

Display Text

Enter the text that will be paced on the path.

Baseline Offset

Enter the value, in current units, of the distance between the baseline of the text and the path. The value can be positive or negative.

Path Offset

Enter the value, in current units, of the distance between the beginning of the path and the start of the text.

Text Start

Enter the beginning text string.

Text End

Enter the ending text string.

Alignment

Choose one of the following alignment options:

0	Align at Start of Path
1	Align at End of Path
2	Align on Center of Path
3	Justify Along Entire Path

INSERT DISTORTED TEXT

The **Insert Distorted Text** option accesses the Insert SHPIT Command dialog. Use this option to print distorted text into a quadrilateral shape. The distorted text will fill / take the shape of the quadrilateral frame. The text may or may not have a drop shadow effect applied. The quadrilateral itself may also be drawn by coding an additional **DRAWPOL**.

These fields appear on the Insert SHPIT Command dialog:

Display Text

Enter the text that will be distorted.

Upper Left X

Enter the position on the X axis (horizontal) at which to place the upper left point of the quadrilateral.

Upper Left Y

Enter the position on the Y axis (vertical) at which to place the upper left point of the quadrilateral.

Lower Left X

Enter the position on the X axis (horizontal) at which to place the lower left point of the quadrilateral.

Lower Left Y

Enter the position on the Y axis (vertical) at which to place the lower left point of the quadrilateral. Enter the position on the Y axis (vertical) at which to place the lower left point of the quadrilateral.

Upper Right X

Enter the position on the X axis (horizontal) at which to place the upper right point of the quadrilateral.

Upper Right Y

Enter the position on the Y axis (vertical) at which to place the upper right point of the quadrilateral.

Lower Right X

Enter the position on the X axis (horizontal) at which to place the lower right point of the quadrilateral.

Lower Right Y

Enter the position on the Y axis (vertical) at which to place the lower right point of the quadrilateral.

Text Color Type

Choose Color/Pattern, or GEPKey.

GEPKey

This field is enabled when the Text Color Type is **GEPKey**. Choose the required GEPKey from the drop-down list.

Color

This field is enabled when the Text Color Type is **Color/Pattern**. Choose the required color from the drop-down list.

Pattern

This field is enabled when the Text Color Type is **Color/Pattern**. Choose the required pattern from the menu.

Use Shadow Color

Click on **Use Shadow Color** when a drop shadow is to be added to the text.

X offset

Enter the horizontal offset value (in current units) for the drop shadow.

Y offset

Enter the vertical offset value (in current units) for the drop shadow.

Shadow Color Type

Choose **Color/Pattern** or **GEPKey**.

GEPKey

This field is enabled when the Shadow Color Type is **GEPKey**. Choose the required GEPKey from the menu.

Color

This field is enabled when the Shadow Color Type is **Color/Pattern**. Choose the required color from the menu.

Pattern

This field is enabled when the Shadow Color Type is **Color/Pattern**. Choose the required pattern from the menu.

Use mirroring

To use the mirroring option, select the check box for **Use mirroring**.

Rotation

Choose from the following:

- None
- 90 degrees
- 180 degrees
- 270 degrees

Fitting

Choose from the following:

- None
- Fit in width
- Stretch in Width

Alignment

- left
- right
- center

INSERT TABLE

The Insert Table option accesses the Insert BEGINTABLE Command dialog. Use this dialog to specify the information to use to define and insert a table at the current cursor position.

These fields appear on the Insert BEGINTABLE Command dialog:

/Width

Enable this check box in order to enter the width, in current units, of the table.

Height Parameters

Specify Height

Enable this check box in order to enter values, in current units, for the height and maximum height of the table.

/Height

Enter the height of the table in current units.

/MaxHeight

Enter the maximum height allowed for the table in current units.

Margin Parameters

/Margins

Enable this check box to enter the following values:

Top

Enter the distance from the center of the page to the top of the table in current units.

Bottom

Enter the distance from the center of the page to the bottom of the table in current units.

Left

Enter the distance from the center of the page to the left side of the table in current units.

Right

Enter the distance from the center of the page to the right side of the table in current units.

CellStroke Parameters

CellStroke Parameters are applied to all of the cells in the table.

/CellStroke

Enable this check box to enter cell stroke parameters.

All

Enable this check box to select cell stroke parameters for all sides of the table's cells. The parameter is selected from a drop-down list.

Top

Enable this check box to select cell stroke parameters for the top of the table's cells. The parameter is selected from a drop-down list.

Bottom

Enable this check box to select cell stroke parameters for the bottom of the table's cells. The parameter is selected from a drop-down list.

Left

Enable this check box to select cell stroke parameters for the left side of the table's cells. The parameter is selected from a drop-down list.

Right

Enable this check box to select cell stroke parameters for right side of the table's cells. The parameter is selected from a drop-down list.

/CellFill

Enable this check box to assign a fill to the cells in the table. The default is "no color".

/TextAtt

Enable this check box to assign text attributes to the cells in the table.

/Align

Enable this check box to align text in the cells in the table.

/TableStroke

Enable this check box to enter table stroke values for the table, a sample of the GEPKey is shown on the right side of the window.

INSERT TABLE ROW

The Insert Table Row option accesses the Insert SHROW Command Dialog. Use this dialog to specify the information to use to define and insert a table row at the current cursor position.

These fields appear on the Insert SHROW Command dialog:

A Cell Commands display window is at the top of the dialog. It displays each of the command definitions that make up the table row. Changes are made using the buttons to the right of the window:

Insert

When the Cell Commands window is empty the Insert button is used to create a new cell command. When all

cell parameter settings have been defined, clicking this button inserts the new cell command into the Cell Commands window.

When a cell command definition appears in the Cell Commands window and is selected or highlighted, clicking the Insert button creates and inserts a new cell command after or below the selected cell.

Append

This button creates and inserts a new cell command at the bottom of the current list of cell commands shown in the Cell Commands window, regardless of which cell has been selected or highlighted.

Remove

Any cell command that has been created and inserted into the Cell Commands window can be deleted by highlighting the command and pressing the Remove button

Update

The Update button is used to modify the currently selected (highlighted) cell command based on the parameter settings in effect, as shown below the Cell Commands window.

/Width

Enable this check box in order to enter the width, in current units, of the current cell being defined or selected, or highlighted in the Cell Commands window.

Height Parameters

Specify Height

Enable this check box in order to enter values, in current units, for the height and maximum height of the cell.

/Height

Enter the height of the cell in current units.

/MaxHeight

Enter the maximum height allowed for the cell in current units.

FixHeight

Enter a fixed height allowed for the cell in current units. If /Height and / MaxHeight are also specified, they will take precedence if the value for / FixHeight does not fall between those values.
If placed in the default cell parameters array it defines a fixed height for the row (all cells) unless surrounded in a subsequent cell by /Height or /MaxHeight.
/FixHeight prevents the evaluation of the size of the text for each cell, thus providing better performance.
/FixHeight is recommended when the size of the text is predictable and not expected to overflow the box.

/Margin Parameters

The values entered are the distance rom the center of the current cell being defined or selected (highlighted) in the Cell Commands window.

/Margins

Enable this check box to enter the following values:

Top

Enter the distance from the center of the current cell being defined or selected (highlighted) in the Cell

Commands window to the top of the table in current units.

Bottom

Enter the distance from the center of the current cell being defined or selected (highlighted) in the Cell Commands window to the bottom of the table in current units.

Left

Enter the distance from the center of the current cell being defined or selected (highlighted) in the Cell Commands window to the left side of the table in current units.

Right

Enter the distance from the center of the current cell being defined or selected (highlighted) in the Cell Commands window to the right side of the table in current units.

CellStroke Parameters

CellStroke Parameters are applied to the current cell being defined or selected (highlighted) in the Cell Commands window.

/CellStroke

Enable this check box to enter cell stroke parameters.

All

Enable this check box to select cell stroke parameters for all sides of the current cell being defined or selected (highlighted) in the Cell Commands window. The parameter is selected from a drop-down list.

Top

Enable this check box to select cell stroke parameters for the top of the current cell being defined or selected (highlighted) in the Cell Commands window. The parameter is selected from a drop-down list.

Bottom

Enable this check box to select cell stroke parameters for the bottom of the current cell being defined or selected (highlighted) in the Cell Commands window. The parameter is selected from a drop-down list.

Left

Enable this check box to select cell stroke parameters for the left side of the current cell being defined or selected (highlighted) in the Cell Commands window. The parameter is selected from a drop-down list.

Right

Enable this check box to select cell stroke parameters for right side of the current cell being defined or selected (highlighted) in the Cell Commands window. The parameter is selected from a drop-down list.

/CellFill

Enable this check box to assign a fill to the cells in the current cell being defined or selected (highlighted) in the Cell Commands window. The default is "no color".

/TextAtt

Enable this check box to assign text attributes to the cells in the current cell being defined or selected (highlighted) in the Cell Commands window.

/Align

Enable this check box to align text in the cells in the current cell being defined or selected (highlighted) in the Cell Commands window.

/CellText

Enable this check box to define a text string to be shown in side the current cell being defined or selected (highlighted) in the Cell Commands window.

/CellImage

Enable this check box to insert an image into the current cell being defined or selected (highlighted) in the Cell Commands window. The Browse button to the right of this selection allows you to browse for the image file.

INSERT VOID PANTOGRAPH

The Insert Void Pantograph option accesses the **SETPAT** command dialog. Use this dialog to specify the information to use to define void pantograph special effect.

In the **SETPAT** command dialog, use the fields to create the void pantograph pattern.

PatternName

This field displays the name the pattern, for example `/VP01`.

TextPixelFrequency

This field defines the frequency and size of the pixel for the text that needs to be hidden.

BackgroundPixelFrequency

This field defines the frequency and size of the pixel for the background patch that hides the text.

Color1

It is highly recommended that you use this option to select the pixel background.

Color2

This option allows you to select the pixel color and text background color.

Htrans

This value is for the horizontal transformation of background pixels.

Vtrans

This value is for the vertical transformation of background pixels.

Rotate

This value specifies the rotation of background pixels through a given angle.

DRAW BOX/CIRCLE/ELLIPSE

The Draw Box/Circle/Ellipse option accesses the Insert a Draw Box/Circle/Ellipse Command dialog. Use this dialog to specify the information to use to insert one or more boxes, circles, or ellipses, then insert the command at the current cursor position.

These fields appear on the Insert a Draw Box/Circle/Ellipse Command dialog:

Draw Box

To enter a draw box command, click **Draw Box**.

Draw Circle/Ellipse

To draw a circle or an ellipse, click **Draw Circle/Ellipse**.
When you select the Draw Circle/Ellipse option, the Rounded Corners, Multiple Boxes, Repeat Count, Y displacement, and X displacement features are disabled.

You can edit one type of command, and switch to any other command using the dialog, for example change **DRAWB** to **DRAWC**. Save the results.

X Position

Enter the position on the X horizontal axis where you want to place the box.

Y Position

Enter the position on the Y vertical axis where you want to place the box.

Width

Enter the value to use for the box width.

Height

Enter the value to use for the box height.

Color Type

To select GEPKey or Color/Pattern, use the list.

GEPkey

This option is enabled when the Color Type is set to GEPKey. To select the Graphic Element Property (GEP) key to use, select the check box for **GEPkey**. The box on the right side of this field displays the color that you selected. The list includes all of the GEP keys available for use.

Color

This option is enabled when the Color Type is set to Color/Pattern. To select a color to use when drawing a box, select the check box for **Color**. The box on the right side of this field displays the color and pattern that you selected. The list includes all of the Colorkeys available for use.

Pattern

This option is enabled when the Color Type is set to Color/Pattern. To select a pattern to use when drawing a box, select the check box for **Pattern**. The box on the right side of this field displays the pattern and color that you selected. The list includes all of the PATkeys available for use.

Rounded Corners

When the corners of the box are rounded, select the check box for **Rounded Corners**. When you select this option, the Radius field is enabled.

Text Flow

When text is not added to the defined shape, select **None**. When you want to place text in, on, or around the

defined shape, select one of the other options. The default option is None. Select one of the following options:

- None
- Text on Path
- Text Inside Shape
- Text Outside Shape

Radius

Specify the radius to use for the corners of the box. This field is enabled only when you select the Rounded Corners option.

Multiple Boxes

To draw more than one box, select the check box for **Multiple Boxes**. When you select the Multiple Boxes option, the Repeat Count, X displacement, and Y displacement fields are enabled.

Repeat Count

Enter the value for the number of boxes to draw. This field is enabled only when you select the Multiple Boxes option.

X Displacement

Enter the value to add to the X horizontal position of the previous box to provide the position of the next box to be drawn.

Y Displacement

Enter the value to add to the Y vertical position of the previous box to provide the position of the next box to be drawn.

DRAW POLYGON

The Draw Polygon option accesses the Insert a DRAWPOL Command dialog. Use this dialog to specify the information to use to create a polygon and then insert the command at the current cursor position. This command supports strings as parameters, allowing you to use DBM variables as parameters.

These fields appear on the Insert a **DRAWPOL** Command dialog:

X Coordinate

Enter the subsequent horizontal positions (Xpos) of the polygon, in conjunction with its corresponding vertical position (Ypos).

Y Coordinate

Enter the subsequent vertical positions (Ypos) of the polygon, in conjunction with its corresponding horizontal position (Xpos).

Round All to Integers

Click the **Round All to Integers** button to round values to integers.

Color Type

Use the menu to select either GEPKey or Color/Pattern.

GEPkey

This box is enabled when the Color Type is set to GEPKey. Use this box to select the Graphic Element Property (GEP) key to use. The box on the right side of this field displays the color that you selected. The list includes all of the GEP keys currently available for use.

Color

This box is enabled when the Color Type is set to Color/Pattern. Use this box to select a color to use when drawing a box. The box on the right side of this field displays the color (and pattern) that you selected. The list includes all of the Colorkeys currently available for use.

Pattern

This box is enabled when the Color Type is set to Color/Pattern. Use this box to select a pattern to use when drawing a box. The box on the right side of this field displays the pattern (and color) that you selected. The list includes all of the PATkeys currently available for use.

Text Flow

Use these options to define text flow in or around an object:

None	no text flow is defined
Text on Path	to place text on a path
Text Inside Shape	to insert text into an object
Text Outside Shape	to wrap text around an object

Buttons

Use the buttons available at the top right of the dialog to delete, insert, replace or append X and Y Coordinates as follows:

Delete	Removes the selected coordinate.
Insert	Inserts a new coordinate using the X and Y coordinate fields.
Replace	Replaces the currently selected X and Y coordinates with the information entered in the XCoordinate and YCoordinate fields. In general, use this button to modify existing coordinates.
Append	Inserts new coordinates, using the information entered in the XCoordinate and YCoordinate fields.

DRAW DDG CHARTS (BAR/CURVE/PIE/PARETO/RADAR)

The Draw DDG Charts (bar/curve/pie/Pareto/radar) option accesses the Insert a Draw Chart Command dialog. Use this dialog to specify the information to use to create data-driven bar, curve, pie, Pareto, or radar charts and then insert the chart command at the current cursor position.

These fields appear on the Insert a Draw Chart Command dialog:

Chart Type

Select the button that represents the type of chart to insert:

Bar	insert a bar chart (DRAWBAR)
Curve	insert a curve chart (DRAWC RV)
Pie	insert a pie chart (DRAWPIE)
Pareto	insert a Pareto chart (DRAWPAR)
Radar	insert a radar chart (DRAWRDR)

Chart Dimensions:

Width	Specify the width to use for the chart. This field is only available for bar, curve, and Pareto charts.
Height	Specify the height to use for the chart. This field is only available for bar, curve, and Pareto charts.
Radius	Specify the radius to use for the chart. This field is only available for pie and radar charts.

Stack this Chart

Select the **Stack this Chart** box to produce a stacked bar chart. A [/Stack true] statement is placed in the DDG Parameters box.

Unstack this Chart

Select the **Unstack this Chart** box to unstack the bar chart. A [/Stack false] statement is placed in the DDG Parameters box.

Use DDG Index

Select the **Use DDG Index** check box to use the numeric DDG Index for the chart. When you select this check box, the field to the right of the box is enabled.

This field contains the DDG index value for the chart. Currently, the only supported value is 0. This value is computed by adding all of the values that are related to the required parameters. Refer to the `xgf/demo/samddg.ps` file for a sample of the available DDG codes.

When you select this check box, the Use Label/Value Variable check box and field and the Label and Value boxes are disabled. This check box is disabled when you select the **Use Label/Value Variable** check box.

Use Label/Value Variable

Select the **Use Label/Value Variable** check box to use a variable for the label/value pairs. When you select this check box, the entry field to the right of this box is enabled.

Use the enabled entry field to enter the variable to associate with the label/value pairs. This variable is used to change the default value of a given parameter. Specify a number of label/variable pairs for use with a single variable and then use the variable with the Draw DDG Chart command. Refer to the `xgf/demo/samddg.ps` file for a sample of the available DDG codes.

When you select this check box, the Use DDG Index box and field, and the Label and Value boxes are disabled. This check box is disabled when you select the **DDG Index** check box.

Label

Displays the labels that are currently available for use in the chart.

- Use the **Insert**, **Replace**, and **Append** buttons with the information you enter in the Selected Label and Selected Value fields to create and modify the Label/Value Pairs.
- Use **Delete** to delete Label/Value Pairs from this box and the Value box.

This box is disabled when you select the **DDG Index** check box or the **Use Label/Value Variable** check box.

Value

Displays the values that are available for use in the chart.

- Use the Insert, Replace, and Append buttons with the information you enter in the Selected Label and Selected Value fields to create and modify the Label/Value Pairs.
- Use Delete to delete Label/Value Pairs from this box and the Label box.

This box is disabled when you check **DDG Index** or **Use Label/Value Variable**.

Label/Value Buttons

The Label and Value boxes display all of the Label/Value pairs you have created. Use the buttons available to the right of these boxes to change, add, and delete Label/Value pairs as follows:

Delete	Use this button to remove the selected Label/Value pair from the Label and Value boxes.
Insert	Use this button to insert a Label/Value Pair at the current cursor position in the Label and Value boxes, using the information entered in the Selected Label and Selected Value fields.
Replace	Use this button to replace the currently selected Label/Value pair in the Label and Value boxes with the information entered in the Selected Label and Selected Value fields. In general, use this button to modify an existing Label/Value pair in the Label and Value boxes.
Append	Use this button to insert a Label/Value pair at the end of the list of Label/Value Pairs in theLabel and Value boxes, using the information entered in the Selected Label and Selected Value fields.

Selected Label

Enter the label information to use in the chart. Use the **Insert**, **Replace**, and **Append** buttons with the information you enter in this field and the Selected Value field to create and modify the Label/Value pairs.

Selected Value

Enter the value information to use in the chart. Use the **Insert**, **Replace**, and **Append** buttons with the information you enter in this field and the Selected Value field to create and modify the Label/Value pairs.

DDG Parameters

Displays the parameter changes that you make on the Edit DDG Parameters dialog. The changes you make affect the Draw DDG command for the current chart only. You access the Edit DDG Parameters dialog when you click **Edit**. Refer to DDG parameters for further information on the fields that display on the Edit DDG Parameters dialog.

Edit

Click the **Edit** button to access the Edit DDG Parameters dialog and make changes to the parameters for this chart. The changes you make display in the DDG Parameters box and affect the Draw DDG command for the current chart only.

DDG Line Parameters

For Pareto charts only, displays the parameter changes that you make on the Edit DDG Parameters dialog. The changes you make affect the Draw DDG command for the current chart only. You access the Edit DDG Parameters dialog when you click **Edit**. Refer to DDG parameters for further information on the fields that display on the Edit DDG Parametersdialog.

Note: When you want the DDG parameters to affect all of the Draw DDG commands, you must specify the parameter information using the Insert SETPARAMS command dialog, which you access by selecting **Set Params (DDG and Format)** from the Page Marking menu.

Specify X Position

Select the **Specify X Position** check box to enter the X (horizontal) axis position for the chart. When you select this check box, the X Position field is enabled.

Specify Relative X Position

Select the **Specify Relative X Position** check box to specify a secondary X (horizontal) axis position. This position is relative to the last primary horizontal position (defined in the last **MOVETO** command or the current frame). This generates a **MOVEHR** command.

X Position

Enter the position on the X axis (horizontal) at which to place the chart. This field is enabled when you select the **Specify X Position** or the **Specify X + Y Position** check box.

Specify X + Y Position

Select the **Specify X + Y Position** check box to enter the X (horizontal) axis and the Y (vertical) axis positions for the chart. When you select this check box, the X Position and the Y Position fields are enabled.

Y Position

Enter the position on the Y axis (vertical) at which to place the chart. This field is enabled when you select the **Specify X + Y Position** check box.

DRAW PATH

The Draw Path option accesses the Edit DRAWPATH Command dialog. Use this dialog to specify a path on which text will be placed.

These fields appear on the Edit DRAWPATH Command dialog:

Origin/Path Points

The **Origin Point/Path Point** window contains the coordinate information, in current units, that will be included in the **DRAWPATH** command options. The values displayed are defined in the X1/Y1, X2/Y2, and X3/Y3 boxes below.

Delete

Click the **Delete** button to delete a highlighted entry from the display window.

Insert

After defining the coordinates in the X1 - Y3 fields described below, click the **Insert** button to insert the coordinates.

Replace

Click the **Replace** button to replace the highlighted entry with the coordinates defined below.

Append

Click the **Append** button to append the highlighted value in the window to the **DRAWPATH** command options.

Round All to Integers

Click the **Round All to Integers** button to round every number, including numbers in the list box and editable fields, in the dialog to an integer.

Point Type

Select one of these options to enable their respective data entry fields:

Arc	To draw a curve.
Line Segment	To draw a straight line.
New Path Origin	To enter the coordinates for a new path origin.

Radius Value (for DRAWPATHR)

Enter a value in current units when using the **DRAWPATHR** command. Not used with the **DRAWPATH** command.

X1 and Y1

Enter the coordinates for the consecutive point on the line after the origin. When Line Segment has been selected, this will be the end point of the line.

X2/Y2 and X3/Y3

Enter the coordinates of the consecutive points joining the previous point with a Bezier curve. To close the path the X3 and Y3 coordinates must be the same as the origin.

Color Type

Choose Color/Pattern to select a color and pattern for the path, or GEPKey to use a predefined GEPkey.

GEPkey

When the Color Type is GEPkey, a list of existing GEPkeys will be available. Use the list to choose the key for the application.

Color

Use the menu to choose the color of the path being defined. Choose No Color when the path should not be visible, as when it will be used for text placement.

Pattern

Use the menu to choose the pattern of the path being defined. Choose No Pattern when the path should not be visible, as when it will be used for text placement.

Text Flow

Choose where the text will be placed in relation to the path being defined:

None	
Text On Path	places the text along a line.
Text Inside Shape	places the text inside the defined shape.
Text Outside Shape	places the text around the outside of the defined shape.

DRAW PATH (ROUNDED CORNERS)

The Draw Path option accesses the Insert DRAWPATHR Command dialog. Use this dialog to specify a path on which text will be placed.

These fields appear on the Insert DRAWPATHR Command dialog:

Origin/Path Points

The **Origin Point/Path Point** window contains the coordinate information, in current units, to include in the DRAWPATH command options. The values displayed are defined in the X1/Y1, X2/Y2, and X3/Y3 fields.

Delete

Click the **Delete** button to delete a highlighted entry from the display window.

Insert

After defining the coordinates in the X1 - Y3 boxes described below, click the **Insert** button to insert the coordinates.

Replace

Click the **Replace** button to replace the highlighted entry with the coordinates defined below.

Append

Click the **Append** button to append the highlighted value in the window to the **DRAWPATH** command options.

Round All to Integers

Clicking the **Round All to Integers** button rounds every number, including numbers in the list box and editable fields, in the dialog, to an integer.

Point Type

Select one of these options to enable their respective data entry fields:

Arc	to draw a curve.
Line Segment	to draw a straight line.
New Path Origin	to enter the coordinates for a new path origin.

Radius Value (for DRAWPATHR)

Enter a value in current units when using the **DRAWPATHR** command.

X1 and Y1

Enter the coordinates for the consecutive point on the line after the origin. When Line Segment has been selected, this will be the end point of the line.

X2/Y2 and X3/Y3

Enter the coordinates of the consecutive points joining the previous point with a Bezier curve. To close the path the X3 and Y3 coordinates must be the same as the origin.

Color Type

Choose Color and Pattern to select a color and pattern for the path, or GEPKey to use a predefined GEPkey.

GEPkey

When the Color Type is GEPkey, a list of existing GEPkeys is available. Use the list to choose the key for the application.

Color

Use the menu to choose the color of the path being defined. Choose No Color when no path is to be visible, as when it is used for text placement.

Pattern

Use the menu to choose the pattern of the path being defined. Choose No Pattern when no path is to be visible, as when it is used for text placement.

Text Flow

Choose where text will be placed in relation to the path being defined:

None	
Text On Path	Places the text along a line.
Text Inside Shape	Places the text inside the defined shape.
Text Outside Shape	Places the text around the outside of the defined shape.

DRAW PDF417 BARCODE

The Draw PDF417 Barcode option accesses the Insert a PDF417 Command dialog. Use this dialog to specify the information to use to create PDF417 barcodes and then insert the barcode command at the current cursor position.

These fields appear on the Insert PDF417 Command dialog:

Data Display Window

This window contains the information that will be encoded in the PDF417 Barcode.

Data Types

Text

Use this option to enter data in text compaction mode. Allowable characters are:

PRINTABLE CHARACTERS	
(\n)	new line or line feed
(\r)	carriage return
(\t)	horizontal tab
(\\)	backslash

Byte

Use this option to enter data in byte compaction mode. Encode any 8-bit value from 0 to 255.

Numeric

Use this option to enter data in numeric compaction mode. Numeric compaction mode should be used to encode long strings of consecutive numeric digits. Although numeric compaction mode can be invoked at any digit length, Xerox recommends that it be used when there are 13 or more consecutive digits.

Specify number of Rows

Use this box to optionally specify the number of rows for the barcode.

Rows (3–90)

Enter the number of rows in the barcode. The number must be within the range of 3 to 90.

Specify number of columns

Use this box to optionally specify the number of columns for the barcode.

Columns (1–30)

Enter the number of data columns in the barcode. The value must be within the range of 1 to 30.

Specify Aspect Ratio

Use this box to optionally specify the aspect ratio of the barcode.

Aspect Ratio H

Enter the horizontal aspect ratio of the barcode.

Aspect Ratio W

Enter the vertical aspect ratio of the barcode.

Specify Error Handling level

Use this box to optionally specify the error handling level for the barcode.

Error Handling level

Enter the error correction/detection level, which must be within the range of 0 to 8, where 0 is the minimum and 8 is the maximum amount of correction. The error level will default to a minimum of two and a maximum of five depending on the amount of data encoded.

One PDF417 barcode can encode approximately 1850 text characters, 1110 bytes, or 2710 digits at an error level of 0. For an error level of 8, the limits are approximately 830 text characters, 498 bytes, or 1215 digits.

Truncation

Select **True** from the menu if you want to allow the barcode to be truncated, False if you do not.

Specify scale or width, rotation, and alignment

Select the **Specify scale or width, rotation, and alignment** check box to enter these values for the barcode:

Scale (%)/Width

Use the menu to choose to adjust the size of the barcode by entering a scaling percentage or actual width in current units. Enter either:

- The percentage to resize the image on the page (for example, 100 indicates 100 percent). This allows you to make the image larger or smaller proportionally.
- A numeric value for a barcode with a fixed width.

Rotation

Enter the degree of rotation for the barcode.

Alignment

Use this field to select the position at which to align the barcode. This field is only enabled when you select the **Specify scale, rotation, and alignment** check box. These options are currently available:

0	Top Left
1	Top Right
2	Top Center
10	Bottom Left
11	Bottom Right
12	Bottom Center
20	Center Left
21	Center Right
22	Center Center

Specify X Position

Check the **Specify X Position** box to enter the X (horizontal) axis position for the chart. When you select this check box, the X Position field is enabled.

Specify Relative X Position

Select the **Specify Relative X Position** check box to specify a secondary X (horizontal) axis position. This position is relative to the last primary horizontal position defined in the last **MOVETO** or the current frame. This generates a **MOVEHR** command.

X position

Enter the position on the **X** axis (horizontal) at which to place the chart. This field is enabled when you select the **Specify X Position** or the **Specify X + Y Position** check box.

Specify X + Y Position

Select the **Specify X + Y Position** check box to enter the X (horizontal) axis and the Y (vertical) axis positions for the chart. When you check this box, the **X Position** and the **Y Position** fields are enabled.

Y position

Enter the position on the **Y** axis (vertical) at which to place the chart. This field is enabled when you select the **Specify X + Y Position** check box.

DRAW MAXICODE BARCODE

The Draw MaxiCode Barcode option accesses the Insert MAXICODE Command dialog. Use this dialog to specify the information to use to create Maxicode barcodes and then insert the barcode command at the current cursor position.

These fields appear on the Insert MAXICODE Command dialog:

Message Data

Enter a string that contains the data to be encoded.

Mode

Choose the structure of the barcode data and error correction within the symbol.

2	Creates a US structured carrier message that is used as a destination sortation symbol by carriers in the shipping industry.
3	Creates an international structured carrier message that is used as a destination sortation symbol by carriers in the shipping industry.
4	Creates a symbol that encodes information for purposes other than the shipping industry. Mode 4 encodes a maximum of 93 characters or 138 digits, but it contains less error correction/detection than mode 5.
5	Creates a symbol that encodes information for purposes other than the shipping industry. Mode 5 encodes a maximum of 77 characters or 113 digits, but it provides more error correction/detection than mode 4.
6	Creates a symbol that encodes a message used to program barcode readers (scanners). Mode 6 encodes a maximum of 93 characters or 138 digits.

Modes 2, 3, 4, and 6 use Enhanced Error Correction (EEC) for the primary message and Standard Error Correction (SEC) for the secondary message. Mode 5 uses EEC for both the primary and secondary messages.

Specify scale or width, rotation, and alignment

Check the **Specify scale or width, rotation, and alignment** box to enter these values for the barcode:

Scale (%)/Width

Use the drop-down list to choose to adjust the size of the barcode by entering a scaling percentage or actual width in current units. Enter either:

- The percentage to resize the image on the page (for example, 100 indicates 100 percent). This allows you to make the image larger or smaller proportionally.
- A numeric value for a barcode with a fixed width.

Rotation

Enter the degree of rotation for the barcode.

Alignment

Use this field to select the position at which to align the barcode. This field is only enabled when you check the **Specify scale, rotation, and alignment** field. These options are currently available:

0	Top Left
1	Top Right
2	Top Center
10	Bottom Left
11	Bottom Right
12	Bottom Center
20	Center Left
21	Center Right
22	Center Center

Specify optional parameters

Click on the **Specify optional parameters** field to enable the Position and Total value dialogs. The optional structured append array is specified if more than one and up to eight Maxicode barcodes are appended in a structured format.

Position Value (1-8)

Enter the position of the barcode.

Total Value (1-8)

Enter the total number of appended barcodes.

Specify X Position

Select the **Specify X Position** check box to enter the X (horizontal) axis position for the chart. When you check this box, the X Position field is enabled.

Specify Relative X Position

Select the **Specify Relative X Position** check box to specify a secondary X (horizontal) axis position. This position is relative to the last primary horizontal position, defined in the last **MOVETO** or the current frame). This generates a **MOVEHR** command.

X Position

Enter the position on the **X** axis (horizontal) at which to place the chart. This field is enabled when you select the **Specify X Position** or the **Specify X + Y Position** check box.

Specify X + Y Position

Check the **Specify X + Y Position** box to enter the X (horizontal) axis and the Y (vertical) axis positions for the chart. When you check this box, the **X Position** and the **Y Position** check boxes are enabled.

Y Position

Enter the position on the **Y** axis (verti cal) at which to place the chart. This field is enabled when you check the **Specify X + Y Position** box.

DRAW DATAMATRIX BARCODE

The Draw DataMatrix Barcode option accesses the Insert DATAMATRIX Command dialog. Use this dialog to specify the information to use to create a DataMatrix barcode and then insert the barcode command at the current cursor position.

Note: DataMatrix is ECC 200 compliant.

These fields appear on the Insert DATAMATRIX Command dialog:

Text Data

Enter a string that contains the data to be encoded.

Specify scale or width, rotation, and alignment

Check the **Specify scale or width, rotation, and alignment** box to enter these values for the barcode:

Scale(%)/Width

Use the drop-down list to choose to adjust the size of the barcode by entering a scaling percentage or actual width in current units. Enter either:

- The percentage to resize the image on the page (for example, 100 indicates100 percent). This allows you to make the image larger or smaller proportionally.
- A numeric value for a barcode with a fixed width.

Rotation

Enter the degree of rotation for the barcode.

Alignment

Use this box to select the position at which to align the barcode. This field is only enabled when you check the **Specify scale, rotation, and alignment** box. These options are currently available:

0	Top Left
1	Top Right
2	Top Center
10	Bottom Left
11	Bottom Right
12	Bottom Center
20	Center Left
21	Center Right
22	Center Center

Specify Rectangle

Check the **Specify rectangle** box to specify a rectangle.

Rectangle

Choose one of the following:

0	Always produces a square symbol
1	Produces a rectangular symbol if data fits

Specify encoding

Check the **Specify encoding** box to specify encoding method, which is presently limited to ASCII.

Encoding

Choose encoding method.

Specify Minimum Dimension (number of rows)

Check the **Specify Minimum Dimension** box to specify the minimum barcode dimension.

MinDim

Enter the minimum value of the barcode dimensions. The default is 1.

Specify X Position

Check the **Specify X Position** box to enter the X (horizontal) axis position for the chart. When you check this box, the X Position field is enabled.

Specify Relative X Position

Check the **Specify Relative X Position** box to specify a secondary X (horizontal) axis position. This position is relative to the last primary horizontal position (defined in the last MOVETO or the current frame). This generates a MOVEHR command.

X Position

Enter the position on the **X** axis (horizontal) at which to place the chart. This field is enabled when you check the Specify X Position or the Specify X + Y Position box.

Specify X + Y Position

Check the **Specify X + Y Position** box to enter the X (horizontal) axis and the Y (vertical) axis positions for the chart. When you check this box, the X Position and the Y Position fields are enabled.

Y Position

Enter the position on the **Y** axis (vertical) at which to place the chart. This field is enabled when you check the Specify X + Y Position box.

DRAW AZTEC BARCODE

The Draw AZTEC Barcode option accesses the Insert AZTEC Command dialog. Use this dialog to specify the information to use to create an Aztec barcode, then insert the barcode command at the current cursor position.

These fields appear on the Insert AZTEC Command dialog:

Text Data

Enter a string that contains the data to be encoded.

Specify scale or width, rotation, and alignment

To enter values for the barcode, select the check box for **Specify scale or width, rotation, and alignment**, then select the following options, as needed:

Scale (%)/Width

To adjust the size of the barcode, enter a scaling percentage or enter the width in current units. Use the drop-down list to choose one of the options:

- The percentage to resize the image on the page, for example, 100 indicates 100%. This option allows you to make the image larger or smaller proportionally.
- A numeric value for a barcode with a fixed width.

Alignment

To select the position at which to align the barcode, use this option. This field is enabled only when you select the check box for **Specify scale, rotation, and alignment**. The following options are available:

0	Top Left
1	Top Right
2	Top Center
10	Bottom Left
11	Bottom Right
12	Bottom Center
20	Center Left

21	Center Right
22	Center Center

Specify error level

To specify an error level, select the check box for **Specify error level**.

ELevel

To indicate the error level used in this application, enter a value between 0 and 99. The default value is 23.

Specify Minimum Dimension (number of layers)

to specify the number of layers to use in this application, select the check box for **Specify Minimum Dimension (number of layers)**.

MinDim

To indicate the dimension of the symbol or the number of layers used, enter an integer from 1–3 . The default is 1.

Specify X Position

To enter the X horizontal axis position for the chart, select the check box for **Specify X Position**. When you select this option, the X Position field is enabled.

Specify Relative X Position

To specify a secondary X horizontal axis position, select the check box for **Specify Relative X Position**. This position is relative to the last primary horizontal position as defined in the last MOVETO or the current frame. This action generates a MOVEHR command.

X Position

Enter the position on the X horizontal axis where you want to place the chart. This field is enabled when you select the Specify X Position or the Specify X + Y Position options.

Specify X + Y Position

To enter the X horizontal axis and the Y vertical axis positions for the chart, select the check box for **Specify X + Y Position**. When you select the option, the X Position and the Y Position fields are enabled.

Y Position

Enter the position on the Y vertical axis where you want to place the chart. This field is enabled when you select the Specify X + Y Position option.

DRAW QRCODE BARCODE

The Draw QRCode Barcode option accesses the Insert QRCODE Command dialog. Use this dialog to specify the information to use to create a QRCode barcode and then insert the barcode command at the current cursor position.

*

These fields appear on the Insert QRCODE Barcode Command dialog:

Data Display Window

This window contains the information that will be encoded in the **QRCODE** Barcode.

Data Types:

Text

Enter a string that contains the text data to be encoded.
The data is encoded at a density of 2 characters per 11 bits. There are 45 allowable characters:

- 10 numeric digits (0–9)
- 26 alphabetic characters (A–Z)
- 9 symbols (SP, $, %, *, +, -, ., /, :)

Byte

Enter a string that contains any data to be encoded.
This mode encodes the 8-bit Latin/Kana character set in accordance with JIS X 0201 (character values 00 to FF hex) at a density of 8 bits per character.

Kanji Data

Enter a string that contains any Kanji data to be encoded.
The Kanji mode encodes Kanji characters in accordance with the Shift JIS system based on JIS X 0208 at a density of one two-byte character per 13 bits. The Shift JIS values are shifted from the JIS X 0208 values.

Mixed Data

Enter a string that contains any mixed data to be encoded.
This mode encodes sequences of data in a combination of any of the compaction modes.

Numeric Data

Enter a string that contains any numeric data to be encoded.
This mode encodes data from the decimal digit set (0–9) at a density of 3 data characters per 10 bits.

Data String

Use to enter a Data String.

Specify error handling level

Check the **Specify error handling level** box to specify an error handling level.

Error Handling Level

Enter a value between 1 and 4 to indicate the error correction/detection level to be used. 1 is the minimum and 4 is the maximum amount of correction. This range corresponds to levels L, M, Q, and H respectively. Level 2, or M, is the default when an error handling level is not specified.

Specify Structured Append Array

Check the **Specify Structured Append Array** box to specify the structured append array.

The optional structured append array is used when more than one, and up to 16, QR barcodes are to be appended in a structured format. The array contains two elements that may be used as defined in the Position and Count boxes.

Position Value (1–16)

Enter the position of the barcode within the set of appended barcodes.

Total Value (1–16)

Enter the total number of appended barcodes.

Specify QR Version

Check the **Specify QR Version** box to specify the QR Version to use.

QR Version (1-40)

The QR version is a number from 1 to 40. If a version number is not specified, the most suitable version will automatically be determined from the number of encoded data characters and the error handling level.

Use Mask Pattern or Mask Pattern Array

Check the **Use Mask Pattern or Mask Pattern Array** box to specify the use of a mask pattern or mask array.

Mask Pattern (1-8)

Enter a value between 1 and 8, or an array of numbers, to define the mask pattern or array. 1 is the default.

Use QR Optimum

Check the **Use QR Optimum** box to enter a QR Optimum value.

QR Optimum

QR Optimum is a performance enhancement parameter. It enables/disables shortcuts in the analysis of mask patterns. -1 enables the shortcuts, other numbers disable the shortcuts.

Specify scale or width, rotation, and alignment

Check the **Specify scale or width, rotation, and alignment** box to enter these values for the barcode:

Scale(%)/Width

Use the drop-down list to choose to adjust the size of the barcode by entering a scaling percentage or actual width in current units. Enter either:

- The percentage to resize the image on the page (for example, 100 indicates100 percent). This allows you to make the image larger or smaller proportionally.
- A numeric value for a barcode with a fixed width.

Rotation

Enter the degree of rotation for the barcode.

Alignment

Use this box to select the position at which to align the barcode. This field is only enabled when you check the **Specify scale, rotation, and alignment** box. These options are currently available:

0	Top Left
1	Top Right
2	Top Center

10	Bottom Left
11	Bottom Right
12	Bottom Center
20	Center Left
21	Center Right
22	Center Center

Specify X Position

Check the **Specify X Position** box to enter the X (horizontal) axis position for the chart. When you check this box, the X Position field is enabled.

Specify Relative X Position

Check the **Specify Relative X Position** box to specify a secondary X (horizontal) axis position. This position is relative to the last primary horizontal position (defined in the last MOVETO or the current frame). This generates a MOVEHR command.

X position

Enter the position on the **X** axis (horizontal) at which to place the chart. This field is enabled when you check the Specify X Position or the Specify X + Y Position box.

Specify X + Y Position

Check the **Specify X + Y Position** box to enter the X (horizontal) axis and the Y (vertical) axis positions for the barcode. When you check this box, the X Position and the Y Position fields are enabled.

Y position

Enter the position on the **Y** axis (vertical) at which to place the barcode. This field is enabled when you check the Specify X + Y Position box.

DRAW USPS 4-STATE BARCODE

The Draw USPS 4-State Barcode option accesses the Insert USPS4CB Command dialog. Use this dialog to specify the information to use to create a USPS 4-State barcode and then insert the barcode command at the current cursor position.

These fields appear on the Draw **USPS4CB** Command dialog:

Tracking Data

Enter the tracking data for this application. Tracking data is a 20 digit tracking data string comprised of the following sub-fields:

- 2-digit Barcode Identifier. The second digit must be 0 through 4.
- 3-digit Special Services field.
- 6-digit Customer Identifier field.
- 9-digit Sequence Number field.

Routing Code

Enter the Routing code for this application. Routing Code is the delivery point ZIP code. It can be in any of the 4 forms accepted by the USPS:

( )	An empty or null string for no ZIP code
(12345)	A 5-digit ZIP code
(12345-6789)	A 9-digit ZIP+4 code-
(12345-6789 01)	An eleven digit ZIP+4 + 2-digit DPC

Specify alignment

Check the **Specify alignment** box to enter the alignment values.

Alignment

Choose the alignment value from the menu of available options.

0	Top Left
1	Top Right
2	Top Center
10	Bottom Left
11	Bottom Right
12	Bottom Center
20	Center Left
21	Center Right
22	Center Center

Specify X Position

Check the **Specify X Position** box to enter the X (horizontal) axis for the barcode. When you check this box, the X Position field is enabled.

Specify Relative X Position

Check the **Specify Relative X Position** box to specify a secondary X (horizontal) axis position. This position is relative to the last primary horizontal position defined in the last **MOVETO** or the current frame). This generates a MOVEHR command.

X position

Enter the position on the **X** axis (horizontal) at which to place the barcode. This field is enabled when you check the **Specify X Position** or the **Specify X + Y Position** box.

Specify X + Y Position

Check the **Specify X + Y Position** box to enter the X (horizontal) axis and the Y (vertical) axis positions for the barcode. When you check this box, the X Position and the Y Position fields are enabled.

Y position

Enter the position on the **Y** axis (vertical) at which to place the barcode. This field is enabled when you check the **Specify X + Y Position** box.

DRAW LINEAR NUMERIC BARCODE

The Draw Linear Numeric Barcode option accesses the Insert DRAWBC Command dialog. Use this dialog to specify the information to use to create a Linear Numeric barcode and then insert the barcode command at the current cursor position.

These fields appear on the Insert DRAWBC Command dialog:

Numeric Data

Enter the numeric data to include in the barcode.

Barcode Type

Choose:

- /UPCA (11 digits)
- /UPCE (7 digits)
- /EAN5 (5 digits)
- /EAN8 (7 digits)
- /EAN13 (12 digits)
- /DATABAR

Use Scale

Enable the Use Scale Option to enter the percentage by which you want to increase (positive value) or decrease (negative value) the Horizontal and/or Vertical dimension of the barcode.

Print Option

Select the print option from the drop-down list. Choose:

0	Do not print human-readable digits
10	Print human-readable digits

Databar Type

Select the Databar Type from the drop-down list.

0	GS1 Databar Omnidirectional
1	GS1 Databar Truncated
2	GS1 Databar Stacked
3	GS1 Databar Stacked Omnidirectional
4	GS1 Databar Limited

5	GS1 Databar Expanded
6	GS1 Databar Expanded Stacked

Note: Databar options 0–4 can include 13 or 14 digits. When 14 digits are entered, the 14th digit is considered a placeholder and is replaced with the calculated check digit. Data entered for Databar options 5 and 6 require the exact number of digits expected for the preceding Application Identifier. The last digit can be any number because it is considered a placeholder and is replaced with the calculated check digit.

Segments per Row

This option is available only when Databar Type 6 (GS1 Databar Expanded Stacked) is selected. Supported values are 2, 4, 6, 8, 10, 12, 14, 16, 18, and 20.

FILL OMR GRID

The Fill OMR Grid option accesses the Insert **FILLOMR** Command dialog. Use this dialog to specify the information to fill an Optical Mark Reading (OMR) grid, and insert the **FILLOMR** command at the current cursor position.

Response String

FILLOMR Parameters

FILLOMR parameters are listed here, refer to FILLOMR parameters in the **SETPARAMS** description for more information:

- /OMRMap
- /OMRDir
- /OMRHskip
- /OMRVskip
- /OMRHdisp
- /OMRVdisp
- /OMRMode
- /OMRSlugFont
- /OMRSlugSize
- /OMRSlugChar
- /OMRWriteResp

All the parameters have built-in defaults that can be altered using **SETPARAMS**. The **FILLOMR** array can be provided with only those parameters that differ from the defaults.

Specify X Position

Check the **Specify X Position** box to enter the X (horizontal) axis position for the grid. When you check this box, the X Position field is enabled.

Specify Relative X Position

Check the **Specify Relative X Position** box to specify a secondary X (horizontal) axis position. This position is relative to the last primary horizontal position, defined in the last **MOVETO** or the current frame. This generates

a **MOVEHR** command.

X position

Enter the position on the X axis (horizontal) at which to place the grid. This field is enabled when you check the Specify X Position or the Specify X + Y Position box.

Specify X + Y Position

Check the **Specify X + Y Position** box to enter the X (horizontal) axis and the Y (vertical) axis positions for the grid. When you select this check box, the X Position and the Y Position fields are enabled.

Y position

Enter the position on the Y axis (vertical) at which to place the grid. This field is enabled when you select the **Specify X + Y Position** check box.

DRAW CUT MARKS

The Draw Cut Marks option accesses the Insert CUTMARK Command dialog. Use this dialog to specify print marks intended to guide trimming of Multi-Up layouts or areas falling off the finished page.

These fields appear on the Insert CUTMARK Command dialog:

X Position

Enter the position on the X axis (horizontal) at which to place the cut mark.

Y Position

Enter the position on the Y axis (vertical) at which to place the cut mark.

Length

Enter the length of the mark in current units.

Width

Enter the width of the lines in current units.

Type

Choose the type of cut mark from a drop-down list:

0	Top left corner
1	Bottom left corner
2	Bottom right corner
3	Top right corner
4	Vertical down
5	Vertical up
6	Vertical center
7	Horizontal right

8	Horizontal left
9	Horizontal center

SET PARAMS (DDG, FILLOMR, FORMAT...)

The Set Params (DDG, FILLOMR, Format...) option accesses the Insert **SETPARAMS** Command dialog. Use tabs at the top of the dialog to select one of these parameter types:

- DDG Parameters
- FILLOMR parameters
- Miscellaneous Parameters
- Format Parameters
- Layout Parameters

The dialogs for each parameter type provide a means to set unique parameter values.

Each of the Insert **SETPARAMS** Command dialogs include a Defaults button at the bottom of the dialog. Clicking this button resets all of the parameters on the dialog to their default value.

DDG Parameters

Use the DDG parameters dialog to specify information to use to set the parameters for all subsequent data-driven graphic charts and insert the **SETPARAMS** command at the current cursor position.

The following fields appear on the DDG Parameters tab, in the Insert SETPARAMS Command dialog.

- To view all DDG parameters, use the slider control.
- To enable a field, select the check box.
- To disable a field, clear the check box.

3D

To enter values for the /3D parameter at the cursor position, use the 3D field. To specify 3D capabilities for the DDG, select an option:

true	The DDG is three-dimensional.
false	The DDG is not three-dimensional.

3DAngle

to enter values for the /3DAngle parameter at the cursor position, select the check box for 3DAngle. In the 3DAngle field, enter the number value for the angle to use for the 3D DDG. The default value is 0.3.

0–1	Show the right side of the bars.
1–2	Show the left side of the bars.

3DThickness

To enter values for the /3DThickness parameter at the cursor position, use this field. In the 3DThickness field,

enter the number value for the thickness to use for the 3D DDG. The numeric value indicates the percentage of the radius, the percentage of the bar width, or the percentage of the width. The default value is 0.35.

BarSpace

To enter values for the /BarSpace parameter at the cursor position, use this field. The number is the value for the amount of space between the bars. The numeric value indicates the percentage of the bar width. The default value is 0.4.

BarSpace2

To enter values for the /BarSpace2 parameter at the cursor position, use the BarSpace2 field. The values set the spacing between a cluster of bars. The possible values are the same as the values for BarSpace.

BGColor

To enter values for the /BGColor parameter at the cursor position, use the BGColor field. To select the color and pattern to use for the background of a bar or curve chart, from the list, select a color.

- The first box contains a list of all available Colorkeys.
- The second box contains a list of all available pattern keys.
- The box to the right of this field displays the color and pattern selected.
- The default value is White.
- For a transparent setting, use **null** instead of a Colorkey.

BGLineColor

To enter values for the /BGLineColor parameter at the cursor position, use the BGLineColor fields. To select the color and pattern to use for the horizontal background scale lines of a bar or curve chart, from the list, select a color and pattern.

- The first box contains a list of all available Colorkeys.
- The second box contains a list of all available pattern keys.
- The box to the right of the field displays the color and pattern selected.
- Specify the color for horizontal background scale lines. The default is white.

BurstList

To enter values for the /BurstList parameter at the cursor position, use the BurstList field. Enter the list of labels to be burst when /SliceBurst is not 0.

ChartDir

To enter values for the /ChartDir parameter at the cursor position, use the CharDir field.

To define the chart direction for **DRAWBAR** and **DRAWCRV** charts, select one of the following values:

0	Bottom-up
1	Left-to-right
2	Top-down
3	Right-to-left

ChartOrder

to enter values for the /ChartOrder parameter at the cursor position, use the ChartOrder field.

Use the ChartOrder fields with the **DRAWBAR** and **DRAWCRV** commands. Enter one of the following values:

0	Print items from left to right or top to bottom
1	Print items from right to left or bottom to top

CheckLabelOverlap

To enter values for the /CheckLabelOverlap parameter at the cursor position, use the CheckLabelOverlap field. The CheckLabelOverlap field enables or disables overlap control for pie charts. The default, true, prevents label overlap.

ClusterMode

To enter values for the /ClusterMode parameter at the cursor position, use the ClusterMode field. The field sets the presentation mode for a cluster of bars: 0 is for stacked bars. 1 is for side-by-side bars.

ColorCycle

To enter values for the /ColorCycle parameter at the cursor position, set the color cycle mode.

Select one of the following values for the color cycle mode:

0	Automatic (most appropriate)
1	Cycle on item (cluster)
2	Cycle on entire chart

Color Table (Edit Below)

To view the Color Table box and to enable the Color Table section located at the bottom right of the dialog, select the check box for **Color Table (Edit Below)**. This box contains a list of the Colorkeys that are selected for the Color Table for the chart. This information is for display only, you do not select the Color Table items from this box.

To add, modify, or delete Color Table items, select the **Color Table (Edit Below)**, then use the Color Table section to make changes to the Color Table.

- When you make changes in the Color Table section of this dialog then click Save, the box contains the changes.
- When you make changes in the Color Table section of this dialog but do not click **Save**, to reset the Color Table list, clear then select this check box. This action disables the Color Table section, resets the Color Table list to the items that were last saved, then enables the Color Table list again.

For a transparent setting, use **null** instead of a Colorkey.

DrawMode

To enter values for the /DrawMode parameter at the cursor position, use the DrawMode field. DrawMode determines how the radar area of a chart is filled. Enter one of the following values:

0	Stroke the radar area (default)
1	Fill the radar area

ExtraSpace

To enter values for the /ExtraSpace parameter at the cursor position, use the ExtraSpace field. Enter the value for the amount of top and bottom space to use with the DDG when you select 0 in the FitSpace field. Enter a numeric value to indicate a percentage of the font size. The default value is 1.

FitSpace

To enter values for the /FitSpace parameter at the cursor position, use the FitSpace field. Select the option to use to fit the DDG in the available space on the page:

0	Use the fixed size of the DDG.
1	Fit the DDG in the Record Processing Entry (RPE) space.
2	Cancel the 3D setting when the radius is less than the maximum size.
4	Use the 3D setting when the radius is greater than the maximum size.
8	Adjust the 3D thickness to allow for the DDG to fit on the page.

HalfPie

To enter values for the /HalfPie parameter at the cursor position, use the HalfPie field. To select the display criterion for a pie chart, use the list box, then select a value:

-1	Display the bottom half of the pie chart.
0	Display the entire pie chart.
1	Display the top half of the pie chart.

KeepRatio

To enter values for the /KeepRatio parameter at the cursor position, use the KeepRatio field. To specify 3D thickness based on the width of the bar, use the list box, then an option:

true	Base the 3D thickness on the width of the bar.
false	Base the 3D thickness on the page width.

LabelColw

To enter values for the /LabelColw parameter at the cursor position, use the LabelColw field. Enter the column width as a percentage of the chart width for label wrapping on horizontal charts.

LabelDashColor

To enter values for the /LabelDashColor parameter at the cursor position, use the LabelDashColor fields. To select the color and pattern to use for the label dashes for a pie chart, use the lists.

- The first box contains a list of all available Colorkeys.
- The second box contains a list of all available pattern keys.
- The box to the right of the field displays the color and pattern selected.

LabelDashWidth

To enter values for the /LabelDashWidth parameter at the cursor position, use the LabelDashWidth field. Enter the value for the width to use for the dash contained in the labels on the DDG. To indicate the width in points, enter a numeric value. The default value is 0.5.

LabelOffset

To enter values for the /LabelOffset parameter at the cursor position, use the LabelOffset field. Enter the offset value to use for the label on the data-driven graphic (DDG). This value indicates the offset of the labels from the pie chart when SpotSize=0. To indicate a percentage of the radius, enter a numeric value. The default value is 0.1.

LineDash

To enter values for the /LineDash parameter at the cursor position, use the LineDash field. To define the line dash when using DRAWCRV, specify the size in points of consecutive solid and blank dash segments.

MaxVal

To enter values for the /MaxVal parameter at the cursor position, use the MaxVal field. Specify a maximum value for fixed scaling.

MinVal

To enter values for the /MinVal parameter at the cursor position, use the MinVal field. Specify a minimum value for fixed scaling.

MergeValue

To enter values for the /MergeValue parameter at the cursor position, use the MergeValue field. To combine values that have equal labels, use the list box, then select an option:

true	Combine values that have equal labels.
false	Do not combine values that have equal labels.

OffsetValue

To enter values for the /OffsetValue parameter at the cursor position, use the OffsetValue field.

OriLine

to enter values for the /OriLine parameter at the cursor position, use the OriLine field.

When the parameter is set to true, a line is added from the origin of the graph at 0,0 to the first point. The default value is false.

PlotSymbol

to enter values for the /PlotSymbol parameter at the cursor position, use the PlotSymbol field. For a single plot symbol specification for character, size, and color specification, or an array of plot symbol specifications, enter `null`.

PrintLabel

To enter values for the /PrintLabel parameter at the cursor position, use the PrintLabel field.

To print labels on bar and curve charts, select one of the following values:

0	Do not print a label.
1	Print labels below the X axis.
2	Print labels at the ends of the bars.

PrintScale

To enter values for the /PrintScale parameter at the cursor position, use the PrintScale field.

To enable the field, select the check box. To print a scale on bar and curve charts, use the list box, then select an option:

0/false	Do not print a scale.
1/true	Print a scale at the bottom left of a chart.
2	Print a scale at the top right of a chart.

PrintValue

To enter values for the /PrintValue parameter at the cursor position, use the PrintValue field. To print values on bar and curve charts and percentages on pie charts, use the list box:

true	Print values or percentages.
false	Do not print values or percentages.

ScaleStep

To enable entry of values for the /ScaleStep parameter at the cursor position, use the ScaleStep box.

ShadeAdjust

When 3D is enabled, the **ShadeAdjust** option enables shading control.

The possible values for the /ShadeAdjust parameter are as follows:

[-1 <0]	Lighter shading: The smaller the number, the lighter the shading.
0	No shading.
[>0 1]	Darker shading: The larger the number, the darker the shading.

SliceBurst

To enter values for the /SliceBurst parameter at the cursor position, use the SliceBurst field. Enter the value for the burst to use for the slice lines or bar borders on the DDG. To indicate a percentage of the radius, enter a numeric value. A value of 0 specifies no burst.

SliceSepColor

To enter values for the /SliceSepColor parameter at the cursor position, use the the SliceSepColor field. To select

the color and pattern to use for the slice or bar borders, use the lists:

- The first box contains a list of all available Colorkeys.
- The second box contains a list of all available pattern keys.
- The box to the right of the field displays the color and pattern selected.
- The default value is black.

SliceSepWidth

To enter values for the /SliceSepWidth parameter at the cursor position, use the SliceSepWidth field. Enter the value for the width to use for the slice lines or bar borders on the DDG. To indicate the width in points, enter a numeric value. The default value is 0.5.

SpotLabels

To enter values for the /SpotLabels parameter at the cursor position, use the SpotLabels field. When DRAWBAR is fed with multiple values for items, enter the labels associated with spot colors.

SpotOffset

To enter values for the /SpotOffset parameter at the cursor position, use the SpotOffset field.

Enter the value for the horizontal offset of the spots from the center of the graphic. The numeric value indicates the percentage of the radius or the percentage of the width.

- A positive number offsets to the right and top.
- A negative number offsets to the left and bottom.
- The default value is 1.4.

SpotSize

To enter values for the /SpotSize parameter at the cursor position, use the SpotSize field.

Enter the value for the size of the spots. To indicate a percentage of the font size, enter a numeric value. A value of 0 specifies no spots.

Stack

To enter values for the /Stack parameter at the cursor position, use the Stack field. Select one of the following:

true	The bar chart is stacked.
false	The bar chart is not stacked.

ValueColor

Use this field to enter a /ValueColor parameter at the cursor position.

XFloat

To enter values for the /XFloat parameter at the cursor position, use the XFloat field. Select:

true	The X axis is floating.
false	The X axis is always at 0.

The following are DDG Code options.

Use DDG Code

To enable the DDG code list box and DDG codes, select the check box for **Use DDG Code**. To select the DDG code shortcuts for the DDG parameters to use, use the list box. The total of the parameters that you select accumulate in the Use DDG Code field, based on the selections that you make and save.

DDG Code Buttons

To the left of the DDG code box, select an available option:

Show/Edit	To display the list box that contains the DDG code information, click **Show/Edit**. Use this box to select the DDG codes to use.
Save	To save the DDG code information that you have selected in the list box, click **Save**. After you click Save, the parameters that you selected appear in the Use DDG Code field, and the list box no longer appears. To redisplay the list box, click **Show/Edit**.
Clear	To clear all the selections from the DDG Code list box, click **Clear**. To clear just one selection, click an item.
Cancel	To cancel any changes that you made in the DDG Code list box, click **Cancel**. When you click Cancel, the DDG Code list box no longer appears. When you access the list box again, the changes that you made no longer appear.

DDG Code Samples

To display a screen with sample charts, click **DDG Code Samples**. To view samples of the various styles available, enable one of the following chart types:

- Bar
- Curve
- Pie
- Pareto
- Radar

Click the type of chart you want to insert. The DDGCode dialog updates the code related to the selected sample.

Color Table

The Color Table panel at the bottom of the screen is activated when you select the check box for Color Table. The Color Table option displays all the Colorkeys that are selected for the Color Table command. When you select the check box for Color Table, the option is enabled. To add, modify, or delete Colorkeys from the Color Table, select the check box for Color Table, then use the Colorkey field and the Color Table buttons.

- When you make changes in the Color Table panel and click Save, the Color Table panel is updated with the changes.
- When changes are made in the Color Table panel and you have not clicked Save, reset the Color Table box to the Colorkeys that were last saved. Click, then reclick the Color Table panel.

Colorkey

To select the Colorkey to add to the Color Table, use the unlabeled box below the Color Table Window. The box on the right side of the Colorkey field displays the color that you selected. The list includes all of the Colorkeys that are available currently. To create and modify the Color Table selections, use the Insert, Replace, and Append buttons with the information that you enter in the Colorkey field.

Pattern

To select the pattern key to use, use this unlabeled box below the Colorkey box . The list includes all of the pattern keys that are available currently.

Color Table Buttons

Select the following options, as needed:

Delete	To remove the selected Colorkey from the Color Table panel, select **Delete**.
Insert	To insert the Colorkey that is selected in the Colorkey field at the current cursor position in the Color Table panel, select **Insert**.
Replace	To replace the Colorkey that is selected in the Color Table panel with the Colorkey that is selected in the Colorkey field, select **Replace**.
Append	To insert the Colorkey that is selected in the Colorkey field at the end of the list of Colorkeys in the Color Table panel, select **Append**.
Save	To save the Colorkeys that are included currently in the Color Table panel, click **Save**. When you click Save, the Color Table panel is updated with the new information.
Clear	To clear all of the Colorkeys from the Color Table panel, select **Clear**. When you perform this task without clicking Save, you can reset the Color Table panel to the Colorkeys that were last saved. Click, then reclick the Color Table panel.

FILLOMR parameters

Use the **FILLOMR** parameters dialog to specify information to use to set the parameters for all subsequent Optical Mark Reading grids then insert the **SETPARAMS** command at the current cursor position.

These fields appear on the Insert **SETPARAMS** Command dialog (**FILLOMR** Parameters tab). Use the corresponding check boxes to enable the fields.

OMRMap

Use this field to enter values for the /OMRMap parameter at the cursor position.

Indicates which characters make up the OMR grid and in which order. The default is (ABCDEFGHIJKLMNOPQRSTUVWXYZ).

Note: Every character in the response string must be a character in the map string.

OMRDir

Use this field to enter values for the /OMRDir parameter at the cursor position.

OMRHskip

The direction of the OMRMap string characters in the OMR grid.

/H	OMR map string characters are shown horizontally (and form each row of) the OMR grid.
/V	OMR map string characters are shown vertically (and form each row of) the OMR grid. (default).

Use this field to enter values for the /OMRHskip parameter at the cursor position.

Indicates the number of columns skipped, the default is 0.

OMRVskip

Use this field to enter values for the /OMRVskip parameter at the cursor position.

Indicates the number of rows skipped, the default is 0.

OMRHdisp

Use this field to enter values for the /OMRHdisp parameter at the cursor position.

The number of columns per inch (CPI) in the OMR grid, the default is 6.

OMRVdisp

Use this field to enter values for the /OMRVdisp parameter at the cursor position.

The number of lines/rows per inch (LPI) in the OMR grid, the default is 6.

OMRMode

Use /OMRMode to slug characters, digits, or numeric strings.

Possible values:

0	Character mapping (default)	Slugs each character of the response string that must be made up of characters from OMRMap.
1	Binary decimal mapping	Slugs each digit of a numeric string into appropriate binary bits 1, 2, 4 and 8. OMRMap must be set to (1248) or (8421).
2	Binary litho mapping	Slugs a numeric string (up to 1,073,741,823) into appropriate binary bits 1, 2, 4, 8, 16, 32, etc. up to 536,870,912.

OMRSlugFont

Use this field to enter values for the /OMRSlugFont parameter at the cursor position.

The OMR font used to fill in the OMR grid bubbles, the default is /XOMR.

OMRSlugSize

Use this field to enter values for the /OMRSlugSize parameter at the cursor position.

The size in points of the OMR font used to fill in the OMR grid bubbles, the default is 12 points.

OMRSlugChar

Use this field to enter values for the /OMRSlugChar parameter at the cursor position.

The shape of the OMR grid bubbles are:

(A)	square
(B)	vertical rectangle
(C)	horizontal rectangle
(D)	circle (default)
(E)	vertical oval
(F)	vertical condensed oval
(G)	horizontal oval
(H)	horizontal condensed oval

Note: The letters A through H in the OMRSlugChar window are not related to the response or map strings. They are used to choose a shape that is defined in the /XOMR font.

OMRWriteResp

Use this field to enter values for the /OMRWriteResp parameter at the cursor position. This indicates how response boxes are filled.

OMRConfig

true	the response boxes must be filled in with the response string
false	no response box (default)

Use OMRConfig to define the configuration of the OMR code for OMRINIT/OMRSHOW.

Miscellaneous Parameters

Use the Miscellaneous Parameters dialog box to set parameters that are not included on the other SETPARAMS tabs, then insert the SETPARAMS command at the current cursor position.

These fields appear on the Insert `SETPARAMS` Command dialog, on the Miscellaneous Parameters tab. To enable the fields, select the check boxes. To disable the fields, clear the check boxes.

BookletMismatch

Use this field to enter values for the /BookletMismatch parameter at the cursor position.

Sets the action when the number of booklet pages do not match the PagesPerBooklet parameter:

0	Ignore mismatch (default)
1	Add pages until the booklet pages match
2	Abort and send VI Compose error message
3	Add pages with the current form until the number of pages match

PagesPerBooklet

Use this field to enter values for the /PagesPerBooklet parameter at the cursor position.

The number of pages in a booklet. The default is 1.

Caching

Use this field to enter values for the /Caching parameter at the cursor position.

Set this parameter using one of these values. If no value is selected, caching occurs according to Adobe specifications.

0	No caching
1	Caching through CACHE and PRECACHE.
2	Caching through CACHE, PRECACHE, and FSHOW.
11	Caching through CACHE and PRECACHE.
12	Caching through CACHE, PRECACHE, and FSHOW (default).

ClearSubst

Use this field to enter values for the /ClearSubst parameter at the cursor position. Possible values:

0	**Best fit behavior (default)**: If Clear is present, apply: On VDP/VIE/VDEP, desktop printer substitute text pattern. On production printer (FFPS, ...) without Clear, ignore. On FFPS/Normalizer, preserve or ignore, depending if Clear is present or not. On VIeC, ignore
1	Same as 0. but preserve on VIeC. The PDF is intended for printing.
2	Ignore on all devices except when Clear is present.
3	Substitute text pattern on all devices except when Clear is present.
4	Preserve on all devices.
5	Ignore on all devices even when Clear is present.
6	Substitute text pattern on all devices even when Clear is present.

CJKunitcount

Use this field to enter values for the /CJKunitcount parameter at the cursor position. A single-byte character is one unit, a multi-byte character is two units.

Set the parameter using one of these values:

false	Each multi-byte character is one unit (default).
true	Applies only to SETRCD, SETPCD, GETFIELD, RPE.

MixPlexCount

Use this field to enter values for the /MixPlexCount parameter at the cursor position.

Use to indicate the number of pages to delay simplex mode. The default is 0.

CacheICALL

Use this field to enter values for the /CacheICALL parameter at the cursor position.

Setting the value to true enables caching transparently when using ICALL.

TransWeight

Use this field to enter values for the /TransWeight parameter at the cursor position.

The TransWeight parameter improves black pixels on the soft edges of transparent areas. These values are available:

1	Eliminate black pixels (default).
< 1	Reduce black pixels.
0	Keep black pixel (current behavior).

ImageDefRes

Use this field enter a value for the /ImageDefRes parameter at the cursor position.

The default for this Image Rendition parameter is 300.

Interpolate

Use this field to enter values for the /Interpolate parameter at the cursor position.

Use to request image interpolation (enhanced quality) on color images. The default is false.

This parameter can impact job performance. Use with CACHE to minimize job impact.

Page Range

Use this field to enter values for the /PageRange parameter at the cursor position.

Use to define the PAGERANGE behavior after the last page in the range prints. The default is 0.

0	Abort the job with an error message (warning)
1	Flush the data file and end without error
2	Process the data file to the end, but do not image pages after the last page in the range.

LCDSmode

Use this field to enter values for the /LCDSmode parameter at the cursor position.

Use this setting to facilitate migration from LCDS to VIPP®. The default is false. When set to true, the SETFORM and SETBFORM commands apply all forms to the physical pages instead of the logical pages. The PROCESSDJDE command automatically sets this value to true.

MediaSubst

Use this field to enter values for the /MediaSubst parameter at the cursor position.

Use this setting to define device-specific actions for SETMEDIA requirements. Use on devices that do not support media selection through SETPAGEDEVICE.

MUPduplex

Use this field to enter values for the /MUPduplex parameter at the cursor position.

Use this setting to define logical page positions for printing multiple images on each side of a print.

0	(Default) logical page positions are identical on the front and on the back.
1	Logical page positions on the back side are computed so that they physically face their counterparts on the front. Logical pages must fit entirely on the physical page, either through explicit specification of the logical page sizes, or by scaling down.

ResolvePath

Use this field to enter values for the /ResolvePath parameter at the cursor position. Use to set the path resolution mode for fileref in PIF links.

0	(Default) Do not resolve the file reference. Leave it as provided.
1	Try to resolve the file reference in the current VIPP® context. If it exists, replace it with the full path. If not, leave it as provided.

PDFCropping

Use this field to enter values for the / PDFCropping parameter at the cursor position.

Possible values:

- /CropBox (Default)
- /TrimBox
- /ArtBox
- /BleedBox
- /MediaBox

DotsPerModule

Use this field to enter values for the /DotsPerModule parameter for a PDF417 barcode at the cursor position.

The number of dots per bar or space in the barcode. The default is 3.

RowHeight

Use this field to enter values for the /RowHeight parameter for a PDF417 barcode at the cursor position.

The height of one row in the barcode. If the error level is given low amounts of encoded data, the default value is 4.

If the error level is appropriate for the amount of data encoded, the default is 3.

AlignChar

Use this field to enter values for the /AlignChar parameter at the cursor position.

Enter the alternate align character for SHMF align=4. Possible values: any ASCII code (0-255)

TextFit

Use this field to enter values for the /TextFit parameter at the cursor position.

Possible values:

0	Anamorphic scale (horizontal only)
1	Isomorphic scale (horizontal and vertical)

SHPWrap

Use this field to enter values for the wrapping characters for the SHP command, in addition to the space. The `charx` value is always a single character.

LocalToUTF8

Use this field to choose a value for the /LocalToUTF8 text encoding parameter.

Possible values:

0	None (default)
1	ISO-8859-2/Windows-1252
2	IDSO-8859-2 (Latin-2)
3	Windows-1250 (Latin-2)
4	ISO-8859-9 (Turkish)
5	Windows-1251 (Cyrillic)
6	Windows-1258 (Vietnamese)
7	Windows CP-874/TIS-6
8	Windows CP-866 (Cyrillic)
9	IDSO-8859-15 (Latin-9)
10	Mac OS Roman
11	Windows-1256 (Arabic)
12	Windows-1255 (Hebrew)
13	UTF-16 (Unicode)

AmPm

Use this field to enter values for the /AmPm parameter at the cursor position.

The AmPm value in an unchecked box is the default value set in xgf.def. The value in a checked box is the value of the SETPARAMS command currently being edited. Use the check box to activate the default value, or to enter a new value.

DaylightSaving

Use this field to enter values for the /DaylightSaving parameter at the cursor position.

The DaylightSaving value in an unchecked box is the default value set in xgf.def. The value in a checked box is the value of the SETPARAMS command currently being edited. Use the check box to activate the default value, or to enter a new value.

DaysLong

Use this field to enter values for the /DaysLong parameter at the cursor position.

The DaysLong (unabbreviated day names) value in an unchecked box is the default value set in xgf.def. The value in a checked box is the value of the SETPARAMS command currently being edited. Use the check box to activate the default value, or to enter a new value.

DaysShort

Use this field to enter values for the /DaysShort parameter at the cursor position.

The DaysShort (abbreviated day names) value in an unchecked box is the default value set in xgf.def. The value in a checked box is the value of the SETPARAMS command currently being edited. Use the check box to activate the default value, or to enter a new value.

DefaultDate

Use this field to enter values for the /DefaultDate parameter at the cursor position.

The DefaultDate value in an unchecked box is the default value set in xgf.def. The value in a checked box is the value of the SETPARAMS command currently being edited. Use the check box to activate the default value, or to enter a new value.

DefinedDate

Use this field to enter values for the /DefinedDate parameter at the cursor position.

Use this box to define a specific date.

MonthsLong

Use this field to enter values for the /MonthsLong parameter at the cursor position.

The MonthsLong (unabbreviated month names) value in an unchecked box is the default value set in xgf.def. The value in a checked box is the value of the SETPARAMS command currently being edited. Use the check box to activate the default value, or to enter a new value.

MonthsShort

Use this field to enter values for the /MonthsShort parameter at the cursor position.

The MonthsShort (abbreviated month names) value in an unchecked box is the default value set in xgf.def. The value in a checked box is the value of the SETPARAMS command currently being edited. Use the check box to activate the default value, or to enter a new value.

TimeZone

Use this field to enter values for the /TimeZone parameter at the cursor position.

The TimeZone value in an unchecked box is the default value set in xgf.def. The value in a checked box is the value of the SETPARAMS command currently being edited. Use the check box to activate the default value, or to enter a new value.

TimeZoneName

Use this field to enter values for the /TimeZoneName parameter at the cursor position.

The TimeZoneName value in an unchecked box is the default value set in xgf.def. The value in a checked box is the value of the SETPARAMS command currently being edited. Use the check box to activate the default value, or to enter a new value.

Format Parameters

Use the Format Parameters tab to set all subsequent format parameters then insert the **SETPARAMS** command at the current cursor position.

These fields appear on the Insert SETPARAMS Command dialog (Format Parameters tab):

Bar Chart/Curve Chart Label Format

Enable the **Bar Chart/Curve Chart Label Format** check box to enter or select the format string to use for Bar Chart/Curve Chart Labels (/Format).

Pie Chart Percentage Format

Enable the **Pie Chart Percentage Format** check box to enter or select the format string to use for Pie Chart Percentages (/FormatPC).

Insert Format Parameters

The window at the center of the Format Parameters dialog provides a checklist consisting of the following parameters:

/DecimalPoint	Decimal delimiter (input string)
/NSign	Negative Sign (input string)
/FDecimalPoint	Decimal delimiter (format string)
/FNSign	Negative sign (format string)
/FPSign	Positive sign (format string)
/FPunctuation	Punctuation delimiter (format string)
/FDigit	Digit delimiter (format string)
/FLZDigit	Leading zero delimiter (format string)

To insert a parameter definition at the current cursor position, place a check mark in the box next to the desired parameters, and then click **OK**.

To change a character definition, highlight the Meta Character Name, enter the desired character in the Character window below the parameter list, then click **Update Selection**.

Character

This field contains the symbol that will be used when defining an input or format string. When you enter a new character here and press Update Selection the definition of the selected Meta Code character is updated to include the new character and its decimal value.

The buttons used to set and update the Meta Character characters are:

Reset All	Use this button to reset all the parameters shown in the box to their original settings.
Reset Selection	Use this button to reset the selected parameter in the box to its original setting.
Update Selection	Use this button to update the selected parameter in the box to use the
	character you have entered in the Character field.

Layout Parameters

Use the Layout parameters dialog to specify information to use to set the parameters for all subsequent layout options, then insert the SETPARAMS command at the current cursor position.

The parameters on this screen are used in Multi-Up applications. The SETPARAMS are the same parameters as defined in DEFINELAYOUT and SETLAYOUT Command dialogs. When the parameters are set in the SETPARAMS screen, the parameters become the default values.

These fields appear on the Insert SETPARAMS Command dialog in the Layout Parameters tab. To enable the option, select the corresponding check box.

/PageWidth

Enter the value for the /PageWidth parameter, which is the width of the logical page in current units.

/PageHeight

Enter the value for the /PageHeight parameter, which is the height of the logical pages.

/LayoutMarks

Choose the value for the /LayoutMarks parameter. Select one of the following options:

0	No Marks (default)
1	Crop Marks
2	Bleed Marks
3	Both

Layout Mark Pages

Choose one of the following options:

00	Front Pages Only
10	Back Pages Only
20	Front and Back Pages

Omit Marks

Choose one of the following options:

000	None
100	Inside Crop Marks
200	Inside Bleed Marks
300	Inside Crop and Bleed Marks

/MarkLength

Enter the value for the /MarkLength parameter, which is the length of the layout marks. Tthe default is 18 points.

/MarkWidth

Enter the value for the /MarkWidth parameter, which is the width of the layout marks. The default is .5 points.

/MarkOffset

Enter the value for the /MarkOffset parameter, which is offset for mark from the corner. Tthe default is 4.5 points.

/TopBleed

Enter the value for the /TopBleed parameter, which is a value for the amount of bleed allowed at the top margin of the logical page. The default is 0.

/BottomBleed

Enter the value for the /BottomBleed parameter, which is a value for the amount of bleed allowed at the bottom margin of the logical page. The default is 0.

/LeftBleed

Enter the value for the /LeftBleed parameter, which is a value for the amount of bleed allowed at the left margin of the logical page. The default is 0.

/RightBleed

Enter the value for the /RightBleed parameter, which is a value for the amount of bleed allowed at the right margin of the logical page. The default is 0.

/HGutter

Enter the value for the /HGutter parameter, which is a value for the horizontal gutter width. The default is 0.

/VGutter

Enter the value for the /VGutter parameter, which is a value for the vertical gutter width. The default is 0.

/Across

Enter the value for the /Across parameter, which is the number of logical pages across the sheet. The default is 1.

/Down

Enter the value for the /Down parameter, which is the number of logical pages down the sheet. The default is 1.

/Rotate

Choose the value for the /Rotate parameter, which is the degree of rotation for the logical pages. The possible values are: 0, 90, 180, and 270 clockwise. The 0 value is the default.

/FillOrder

Choose the value for the /FillOrder parameter, which is the order for filling the logical pages. Filling orders are as follows:

Right Down	Left to right then top to bottom (default)
Left Down	Right to left then top to bottom
Right Up	Left to right then bottom to top
Left Up	Right to left then bottom to top
Down Right	Top to bottom then left to right
Up Right	Bottom to top then left to right
Down Left	Top to bottom then right to left
Up Left	Bottom to top then right to left

/PageClip

Use this field to select:

true	Enables page clipping
false	Disables page clipping

MOVE X AND Y POSITION

The Move X and Y Position option accesses the Insert a Move Command dialog. Use this dialog to specify the new X (horizontal) and Y (vertical) positions to use and then change the X and Y coordinates command at the current cursor position.

These fields appear on the Insert a Move Command dialog:

Specify X Position

Check the **Specify X Position** box to enter the X (horizontal) axis position for the chart. When you check this box, the X Position field is enabled.

Specify Relative X Position

Check the **Specify Relative X Position** box to specify a secondary X (horizontal) axis position. This position is relative to the last primary horizontal position (defined in the last MOVETO or the current frame). This generates a MOVEHR command.

X position

Enter the position on the X axis (horizontal) at which to place the chart. This field is enabled when you check the Specify X Position or the Specify X + Y Position box.

Dot Leading GEPKey

Enter the GEPKey description.

The GEP keys used for the dot leading function are a subset of the full GEP key list (as used in other dialogs like DRAWB). The dot-leading subset of GEP keys excludes the full-color GEP keys and only includes those that are line-style (solid, dashed, or bold).

Specify X + Y Position

Check the **Specify X + Y Position** box to enter the X (horizontal) axis and the Y (vertical) axis positions for the chart. When you check this box, the X Position and the Y Position fields are enabled.

Y position

Enter the position on the **Y** axis (vertical) at which to place the chart. This field is enabled when you check the **Specify X + Y Position** box.

SET INDENTATION (FOR SHP)

The Set Indentation (for SHP) option accesses the Insert SETINDENT Command dialog. Use this dialog to specify the indent value for the SHP command and then insert the indent command at the current cursor position.

This field appears on the Insert SETINDENT Command dialog:

Indentation Value

Enter the indentation to use for the SHP command. You enter this value in current units. The default value is 0.

SET ABSOLUTE POSITION MODE

The Set Absolute Position Mode option accesses the Insert **ABSPOS** Command dialog. Use this dialog to insert an **ABSPOS** command at the current cursor position. In Multi-Up mode, the **ABSPOS** command allows all of following placements to be relative to the physical page rather than to the current logical page.

Use the **Insert This Command** box on this screen to insert the command at the current cursor position.

CANCEL CLIPPING AREA

The Cancel Clipping Area option accesses the Insert ENDCLIP Command dialog. Use this dialog to insert an **ENDCLIP** command at the current cursor position. **ENDCLIP** disables clipping and restores full-page printing.

To insert the command at the current cursor position, on the Insert ENDCLIP Command screen, select the check box for **Insert This Command**.

SAVE SECONDARY PRINT POSITION

The Save Secondary Print Position option accesses the Insert SAVEPP Command dialog. Use this dialog to insert a SAVEPP command at the current cursor position. SAVEPP saves the current secondary print position for later use.

Use the **Insert This Command** box on this screen to insert the command at the current cursor position.

INSERT RUN (VIPP® OR POSTSCRIPT)

The Insert RUN (VIPP® or PostScript) option on the RUN Commands submenu accesses the Insert RUN Command dialog. Use this dialog to specify RUN command information and then insert the RUN command at the current cursor position.

> **Caution:** VIPP® or PostScript files must be in a directory path defined by the **SETMPATH** command.

These fields appear on the Insert RUN Command dialog:

File Name

Enter the name of the file to run, or use Browse to access the Please choose the file to load window and select the file to run. The RUN command executes the VIPP® or PostScript code contained in the referenced file. The VIPP® or PostScript file you specify must be available in a directory path defined by the VIPP® SETMPATH command.

Run Option

Use this box to select the run option to use:

0	No Special Action, which performs no special action
1	Save/Restore Encapsulation, which protects memory consumption. Use this option for any applications that need to protect the RUN execution.
2	Save/Restore + Basic VIPP®/PS Interaction, which enables interaction between VIPP® and PostScript (where page-related features such as SETFORM, SETPAGENUMBER, and SETFRAME are active during execution of the PostScript job). This option also updates context information (such as page numbering and front/back settings) and applies VIPP® features at the end of the PostScript page execution (this is the reason that SETMEDIA is not allowed with this option).
3	Save/Restore + Full VIPP®/PS Interaction, which enables interaction between VIPP® and PostScript (where page-related features such as SETFORM, SETPAGENUMBER, and SETFRAME are active during execution of the PostScript job). This option also updates context information (such as page numbering and front/back settings) and applies VIPP® features at the beginning of the PostScript page execution. When the PostScript file is generated by an Apple LaserWriter NTX II driver (W3.1x and W95), it is only supported when TrueType fonts are not used.

INSERT RUNDD (DECOMPOSED DOCS)

The Insert RUNDD (Decomposed Docs) option on the RUN Commands submenu accesses the Insert RUNDD Command dialog. Use this dialog to specify RUNDD command information and then insert the RUNDD command at the current cursor position. The RUNDD command allows you to print a document that was previously processed by the Decomposition Service in DocuPrint NPS or DocuTech 6100/6135/6180 printers.

> **Caution:** Documents must be in a directory path defined by a **SETIPATH** or **SETFPATH** (DocuPrint NPS only) command.

These fields appear on the Insert RUNDD Command dialog:

Document Name

Enter the name of the decomposition document to print, or use Browse to access the Please choose the file to load window and select the decomposition document to print.

The RUNDD command accesses the libraries currently defined by SETIPATH and SETFPATH to locate the initial page for the document you specify. Once the initial page is located, VIPP® prints all of consecutive pages that are associated with the document and are located in the same library. The document you specify must be available in a directory path defined by the VIPP® SETIPATH or SETFPATH command.

Use /ENDOFRUN Flag

Check the **Use /ENDOFRUN Flag** box to end the document.

Use /ENDOFSET Flag

Check the **Use /ENDOFSET Flag** box to staple the document, offset the document, or both.

INSERT RUNTIF (MULTI-PAGE TIFF)

The Insert RUNTIF (Multi-page TIFF) option on the RUN commands submenu accesses the Insert RUNTIF Command dialog. Use this dialog to specify RUNTIF command information and then insert the RUNTIF command at the current cursor position.

The RUNTIF command prints a document from a single TIFF file that contain one or more pages. Each page of the TIFF file prints on a separate logical page.

> **Caution:** Documents must be in a directory path defined by a **SETIPATH** command.

These fields appear on the Insert RUNTIF Command dialog:

Document Name

Enter the name of the TIFF file to print, or use Browse to access the Please choose the file to load window and select the TIFF file to print. The TIFF file you specify must be available in a directory path defined by the VIPP® SETIPATH command.

Use StartPage/StopPage

Place a check in this box to enable the Start Page and Stop Page fields.

Start Page

Enter the number of the first page in the range of pages to print.

Stop Page

Enter the number of the last page in the range of pages to print.

SET IGNORE BADTIFFS OPTION

Set Ignore BadTiffs Option on the TIFF Options submenu accesses the Insert Bad Tiffs Option dialog. Use this dialog to indicate whether to turn the bad TIFFs option on or off and then insert the Bad TIFFs option command at the current cursor position.

This field appears on the Insert Bad Tiffs Option dialog:

Bad Tiffs Option

Use this box to specify the bad TIFFs option:

IGNOREBT_on	Enable the bad TIFFs option and cause icall to ignore corrupted or unsupported TIFF files.
IGNOREBT_off	Disable the bad TIFFs option and cause icall to abort the job when a corrupt or unsupported TIFF file is encountered.

SET REVERSE MODE OPTION

Set Reverse Mode Option on the TIFF Options submenu accesses the Insert Reverse Option dialog. Use this dialog to indicate whether to turn the reverse option on or off and then insert the reverse option command at the current cursor position.

This field appears on the Insert Reverse Option dialog:

Reverse Option

Use this box to specify the reverse option:

IREVERSE_on	Enable the reverse option and print images in reverse mode.
IREVERSE_off	Disable the reverse option and print images in normal mode.

SET TIFF ORIENTATION OPTION

Set TIFF Orientation Option on the TIFF Options submenu accesses the Insert Tiff Orientation dialog. Use this dialog to indicate whether to turn the TIFF orientation on or off and then insert the orientation command at the current cursor position.

This field appears on the Insert Tiff Orientation dialog:

Tiff Orientation

Use this box to specify the TIFF orientation.

TIFORI_on	Enable TIFF orientation (enables processing of tag 274).
TIFORI_off	Disable TIFF orientation (disables processing of tag 274).

RPE Items

The Smart Editor produces these options when RPE Items is selected:

New RPE Prefix Definition	New Record Criteria Definition (RCD)	New BEGINRPE, FROMLINE, or RPEKEY Group
New Page Criteria Definition (PCD)	New GETFIELD Command	

NEW RPE PREFIX DEFINITION

The New RPE Prefix Definition option accesses the Insert SETRPEPREFIX Command dialog. Use this dialog to specify RPE prefix information and then insert the RPE prefix command at the current cursor position. The **SETRPEPREFIX** command enables Record Processing Entry (RPE) prefix mode and sets the prefix length.

Prefix Length

Enter the length of the prefix.

Prefix Position

Enter the position of the prefix in the record, starting with 0.

NEW PAGE CRITERIA DEFINITION (PCD)

The New Page Criteria Definition (PCD) option accesses the Insert setpcd Command dialog. Use this dialog to specify page criteria definition (PCD) information and then insert the SETPCD command at the current cursor position.

These fields appear on the Insert SETPCD Command dialog:

Key Name

Enter the name to use for the setpcd key.

Line Number

Enter the value that specifies the line number from which the condition is evaluated.

Line Count

Enter the value that specifies the number of lines on which the condition is evaluated.

Record Position

Enter the value that specifies the position of the desired field in the record. This field only displays when you check the Use Recpos, Reclen box.

Use Recpos, Reclen

Check the **Use Recpos, Reclen** box to specify the position and length of the desired field by displaying and using the Record Position and Record Length fields. Use this box to specify the information for records that do not have a field delimited structure.

Record Length

Enter the value that specifies the length of the desired field in the record. This field only displays when you check

the Use Recpos, Reclen box.

Use Field Number

Check the **Use Field Number** box to specify the number and keyword for the line by displaying and using the Field Number and /FN Keyword fields. Use this box to specify the information for records that have a field delimited structure.

Field Number

Enter the number of the desired field in the record. This field only displays when you check the Use Field Number box.

/FN Keyword

This field displays and automatically contains the text /FN when you check the Use Field Number box. This field specifies that the value entered in the Field Number field indicates a field number for the desired field.

Conditional Test

Use the drop-down list to select the test operator to use (for example, eq, ne, ge, gt, le, lt and /HOLD). / HOLD searches for the compare string anywhere in the selected record.

Compare String

Enter the reference string for the test. Enter any string of text to locate in the data file. The text you enter must be enclosed in parentheses.

Use /PREV

Check the **Use /PREV** box to insert the /PREV parameter in the Compare String field. /PREV refers to the equivalent string on the previous page.

NEW RECORD CRITERIA DEFINITION (RCD)

The New Record Criteria Definition (RCD) option accesses the Insert **SETRCD** Command dialog. Use this dialog to insert a record criteria definition (RCD) at the current cursor position.

These fields appear on the Insert **SETRCD** Command dialog:

Key Name

Enter the name to use for the setrcd key.

Record Position

Enter the value that specifies the position of the desired field in the record. This field only displays when you check the Use Recpos, Reclen box.

Use Recpos, Reclen

Check the **Use Recpos, Reclen** box to specify the position and length of the field by displaying and using the Record Position and Record Length fields. Use this box to specify the information for records that do not have a field delimited structure.

Record Length

Enter the value that specifies the length of the desired field in the record. This field only displays when you check the Use Recpos, Reclen box.

Use Field Number

Check the **Use Field Number** box to specify the number and keyword for the field by displaying and using the Field Number and /FN Keyword fields. Use this box to specify the information for records that have a field delimited structure.

Field Number

Enter the number of the field in the record. This field only displays when you check the Use Field Number box.

/FN Keyword

This field displays and automatically contains the text /FN when you check the Use Field Number box. This field specifies that the value entered in the Field Number field is the number for the desired field.

Conditional Test

Use this box to select the test operator to use, for example, eq, ne, ge, gt, le, lt and /HOLD. /HOLD searches for the compare string anywhere in the selected record.

Compare String

Enter the reference string for the test. Enter any string of text to locate in the data file. The text you enter must be enclosed in parentheses.

Use Condition Statement

Check the **Use Condition Statement** box to enable Condition Statement.When enabled only the Key Name and Condition Statement fields will be available.

Condition Statement

Use this box to enter a sequence of VIPP® commands expected to deliver a boolean variable.

NEW GETFIELD COMMAND

The New **GETFIELD** Command option accesses the Insert GETFIELD Command dialog. Use this dialog to specify **GETFIELD** command information and then insert the **GETFIELD** command at the current cursor position. The **GETFIELD** command captures a record portion or a field of a specific line and assigns its value to the specified variable.

These fields appear on the Insert GETFIELD Command dialog:

VAR Name

Enter the name of the variable to which to assign the captured data.

Line Offset From Key

Enter the value that specifies the line number from which the data is captured.

Record Position

Enter the value that specifies the position of the desired field in the record. This field only appears when you select the Use Recpos, Reclen check box.

Use Recpos, Reclen

To specify the position and length of the desired field by displaying and using the Record Position and Record

Length fields, select the **Use Recpos, Reclen** check box . Use this box to specify the information for records that do not have a field delimited structure.

Record Length

Enter the value that specifies the length of the desired field in the record. This field only displays when you check the Use Recpos, Reclen box.

Use Field Number

Select the **Use Field Number** check box to specify the number and keyword for the line by displaying and using the Field Number and /FN Keyword fields. Use this check box to specify the information for records that have a field delimited structure.

Field Number

Enter the number of the desired field in the record. This field only appears when you select the Use Field Number check box.

/FN Keyword

This field displays and automatically contains the text /FN when you check the Use Field Number box. This field specifies that the value entered in the Field Number field indicates a field number for the desired field.

PCDKey Name

Enter the name of the PCDKey to use. Use a PCDKey that has already been defined using the SETPCD command. This field is only available when you select the Use PCDKey check box.

Use PCDKey

Check the **Use PCDKey** box to specify a **PCDKey** for use with the **GETFIELD** command. When you select this check box, the **PCDKey** Name field is enabled.

NEW BEGINRPE, FROMLINE, OR RPEKEY GROUP

Selecting any one of the three RPE group options listed here accesses the Insert an RPE Item dialog.

Use the New beginrpe Group option to specify the information to use to begin a Record Processing Entry (RPE) library definition in a Job Descriptor Ti cket (JDT) file and then insert the RPE library definition command at the current cursor position.

Use the New fromline Group option to specify the information to use to set an RPE definition, which will be applied from a specific line number, and then insert the FROMLINE command at the current cursor position.

Use the New RPEKEY Group option to specify the information to use to set an RPE definition, which will be invoked by SETRPE or by the line prefix, and then insert the RPEKEY group command at the current cursor position. This command sets the parameters for a single RPEKEY group (rather than for an entire BEGIN/END RPE group).

Fields on the Insert and RPE Item dialog will be available depending on the type of command and position of the cursor. Also, when the cursor is placed in the RPE Tree Item box and the right mouse button is clicked, the RPE Tree Item right mouse button menu displays. Refer to Using the RPE Tree Item right mouse button menu for further information on this right mouse button menu.

RPE Data Record list box

Displays the data records for the application.

RPE Tree Item list box

Displays the formatting hierarchy of the BEGINRPE command. Select the items from this box using the mouse or the arrow keys. The information for the item that is currently selected in this box displays in the Edit Selected Line field. When you right-click on an item from the hierarchy, the RPE Tree Item right mouse button menu displays.

RPE Tree Item right mouse button menu

When you right-click on an item from the RPE Tree hierarchy, the RPE Tree Item right mouse button menu displays. The RPE Tree Item right mouse button menu options that are enabled are based on the type of RPE definition and on the current position of the cursor in the RRE Tree Item box. Refer to Using the RPE Tree Item right mouse button menu for further information on this right mouse button menu.

Depending on the cursor placement the following options are available on this menu:

Insert new RPEKEY

Allows you to insert a new RPE key after the current selection. When you select this item from the RPE Tree Item right mouse button menu, the RPEKEY Insert new item after current selection dialog displays. Refer to Using the RPE Tree Item right mouse button menu for further information on this dialog.

Insert FROMLINE

Allows you to insert a new FROMLINE entry after the current selection. When you select this item from the RPE Tree Item right mouse button menu, the FROMLINE Insert new item after current selection dialog displays. Refer to Using the RPE Tree Item right mouse button menu for further information on this dialog.

Insert new RPE entry

Allows you to insert a new RPE entry after the current selection. Refer to Using the RPE Tree Item right mouse button menu for further information on this option.

Delete this line (and children)

Allows you to delete the item currently selected in the RPE Tree Item box. When an item is deleted from the hierarchy, all children of the selected item are also deleted. BEGINRPE or an ENDRPE item cannot be deleted.

Align

Enter the value to use to specify the alignment for the data specified by the RPE entry.

Rotate

Enter the degree by which to turn the image. When you enter a positive number, the image is turned counterclockwise; when you enter a negative number, the image is turned clockwise.

Xinit

Enter the value that specifies the initial horizontal position on the page. This position is computed from the left margin.

Xdisp

Enter the value to add to Xinit for consecutive records that use the same RPE definition.

Yinit

Enter the value that specifies the initial vertical position on the page. This position is computed from the top margin. In an RPE definition, the origin is always the top left corner of the page.

Ydisp

Enter the value to add to Yinit for consecutive records that use the same RPE definition.

Recpos

Enter the value that specifies the position of the field in the record.

Reclen

Enter the value that specifies the length of the field in the record.

Font

Use this box to select the font index to use. This list includes all of the font indices currently defined (using INDEXFONT) and available for use.

Color

Use the drop-down list to select the Colorkey to use. This list includes all of the Colorkeys currently available for use.

Pattern

Use the drop-down list to select the pattern key to use. This list includes all of the pattern keys currently available for use.

Edit Selected Line

Indicates the item that is currently selected in the RPE Tree Item box. This information changes as you select items in the RPE Tree Item box, or use the arrow keys to move through the box. Modify the selected item by entering the changes in this field. The changes you make in this field display in the RPE Tree Item box after you click the Apply Changes button.

Get Recpos/Reclen

Click the **Get Recpos/Reclen** button to update the information contained in the Recpos and the Reclen fields. The information that displays is based on the data field that is currently selected in the RPE Data Record box. Click the Apply Changes button to update these changes in the RPE Tree Item box.

Apply Changes

Click the **Apply Changes** button to apply the changes you make to the command information.

Using the RPE Tree Item Right Mouse Button Menu

The RPE Tree Item right mouse button menu is accessed when you right-click on an item located in the RPE Tree Item box on the Insert an RPE Item: **BEGINRPE**, the Insert an RPE Item: **FROMLINE**, or the Insert an RPE Item: RPEKEY dialog.

The RPE Tree Item right mouse button menu options that are enabled are based on the type of RPE definition and on the current position of the cursor in the RPE Tree Item box. These options appear on the RPE Tree Item right mouse button menu:

- Insert new RPEKEY
- Insert NEWGROUP
- Insert new FROMLINE
- Insert new RPE entry
- Delete this line (and children)

Insert new RPEKEY

Use this menu option to insert a new **RPEKEY** entry after the current selection.

The Item to Insert field contains the default **RPEKEY** name. This is the name that is used for the new RPE key that you add to the RPE Tree hierarchy. After you insert the new RPE key, use the Edit Selected RPE Line field to edit the RPE key text.

Insert NEWGROUP

Use this menu option to insert a **NEWGROUP** entry after the current selection.

Insert new FROMLINE

Use this menu option to insert a new **FROMLINE** entry after the current selection.

The Item to Insert field contains the default **FROMLINE** name. This is name that is used for the new **FROMLINE** entry that you add to the RPE Tree hierarchy. After you insert the new **FROMLINE** entry, use the Edit Selected Line field to edit the **FROMLINE** entry text.

Insert new RPE entry

When you select this item from the RPE Tree Item right mouse button menu, a new RPE entry is added after the current selection. After you insert the new RPE entry, use the RPE entry parameter fields available in the Edit Selected Line section to edit the RPE entry settings.

When there are currently no Index Font settings specified, the `Unable to Create RPE Entry` error message dialog appears.

Delete this line (and children)

When you select this item from the RPE Tree Item right mouse button menu, the item that is currently selected in the RPE Tree Item box can be deleted. When you delete an item from the hierarchy, all children of the selected item are also deleted. **BEGINRPE** or an **ENDRPE** item cannot be deleted.

Output Device Control

The Smart Editor produces these options when Output Device Control is selected from the Smart Editor menu:

Set Media Requirements	Set Booklet Range to Print	Set Offset Option
Set Output Resolution	Set Page Range to Print	Set MSPP Option
Mark End of Run	Set Duplex Option	Set Binding Option
Mark End of Set	Set Finishing Options	Set Staple Details
Start a Booklet	Set Staple Option	Mark Start of Set
End a Booklet	Set Jog Option	

SET MEDIA REQUIREMENTS

The Set Media Requirements option accesses the Insert SETMEDIA Command dialog. Use this dialog to specify media information and then insert the media requirements command at the current cursor position.

These fields appear on the Insert **SETMEDIA** Command dialog:

Media

This box displays all of the Media items you have created using the paper selections you specify in the Type, Color, and Weight fields. Use the buttons available to the right of this box to change, add, and delete media selections as follows:

- **Delete**: Use this button to remove the selected media item from the Media box.
- **Insert**: Use this button to insert a Media item, using the selections made in the Type, Color, and Weight fields, at the current cursor position in the Media box.
- **Replace**: Use this button to replace the currently selected Media item in the Media box with the selections made in the Type, Color, and Weight fields. In general, use this button to modify an existing media item in the Media box.
- **Append**: Use this button to insert a Media item, using the selections made in the Type, Color, and Weight fields, at the end of the list of Media items in the Media box.

Type

Use this box to select the type of paper stock to use for the Media item, for example, Drilled. If the paper stock is not on the list, enter the appropriate information in this field.

Color

Use this box to select the paper color to use for the Media item, for example, goldenrod. If the paper color is not on the list, enter the appropriate information in this field.

Weight

Enter the weight for the paper stock to use for the Media item, for example, 60 to indicate 60 lb. stock.

Front Coating

Use these boxes to select the media coating types from a menu.

Back Coating

Use these boxes to select the media coating types from a menu.

Copies Selection

Enter the number of copies to use. Make sure that the value you enter in this field is less than or equal to the value specified with the **SETCYCLECOPIES** command. This field is available only when you select the **Specify Copies** check box.

Specify Copies Selection

Select the **Specify Copies Selection** check box to enter a copy selection for the **Set Media** command. When you select this check box, the **Specify Copies** selection field is enabled.

Use media for current page only

Check the **Use media for current page only** box to use the criteria for this **Set Media** command for the current page only. When you select this check box, the Mediabox field and related buttons, the Copies selection, and the Specify Copies selection fields are disabled.

SET OUTPUT RESOLUTION

The Set Output Resolution option accesses the Insert SETRES Command dialog. Use this dialog to specify page resolution information and then insert the resolution command at the current cursor position.

This field appears on the Insert SETRES Command dialog:

Resolution

300: Print at 300 dots per inch
600: Print at 600 dots per inch

MARK END OF RUN

The Mark End of Run option accesses the Insert **ENDOFRUN** Command dialog. Use this dialog to insert an **ENDOFRUN** command at the current cursor position.

The **ENDOFRUN** command acts as a subset of the set delimiter. When you insert this command in the print file, you must place it at the beginning of the last page of the subset.

Use the **Insert This Command** box on this screen to insert the command at the current cursor position.

MARK END OF SET

The Mark End of Set option accesses the Insert **ENDOFSET** Command dialog. Use this dialog to insert an **ENDOFSET** command at the current cursor position.

The **ENDOFSET** command acts as a set delimiter. When using this command in the print file, you must place it at the beginning of the last page of the set.

Use the **Insert This Command** box on this screen to insert the command at the current cursor position.

START A BOOKLET

The Start a Booklet option accesses the Insert STARTBOOKLET Command dialog. Use this dialog to insert a **STARTBOOKLET** command at the current cursor position.

The **STARTBOOKLET** command must be coded before any marking command on the first page of a booklet.

Note: It should not be used in VIPP® applications running on other platforms.

Use the **Insert This Command** box on this screen to insert the command at the current cursor position.

END A BOOKLET

The **ENDBOOKLET** command must be inserted after the last **PAGEBRK** command on the last page of a booklet.

Note: It should not be used in VIPP® applications running on other platforms.

Use the **Insert This Command** box on this screen to insert the command at the current cursor position.

SET BOOKLET RANGE TO PRINT

The Set Booklet Range to Print option accesses the Insert **BOOKLETRANGE** Command dialog. Use this dialog to insert a **BOOKLETRANGE** command at the current cursor position.

BOOKLETRANGE is similar to **PAGERANGE** but is booklet oriented. **BOOKLETRANGE** works in conjunction with **STARTBOOKLET** and **ENDBOOKLET** to allow selection of a range of booklets to print.

These fields appear on the Set Booklet Range to Print option dialog:

Starting Booklet

Enter the number of the first booklet to print.

Ending Booklet

Enter the number of the last booklet to print.

SET PAGE RANGE TO PRINT

The Set Page Range to Print option accesses the Insert PAGERANGE Command dialog. Use this dialog to insert a **PAGERANGE** command at the current cursor position.

These fields appear on the Insert PAGERANGE Command to Print option dialog:

Starting Page

Enter the starting page number.

Ending Page

Enter the ending page number.

SET DUPLEX OPTION

The Set Duplex Option option accesses the Insert Duplex Option dialog. Use this dialog to indicate whether to turn duplexing or tumble duplexing on or off and then insert the duplex option command at the current cursor position.

This field appears on the Insert Duplex Option dialog:

Duplex Option

Use this box to specify the duplexing option.

- **DUPLEX_on**: Enable the duplex option and print images in duplex mode.
- **DUPLEX_off**: Disable the duplex option and print images in simplex mode.
- **TUMBLEDUPLEX_on**: Enable the tumble duplex option and rotate the even page or back page images.
- **TUMBLEDUPLEX off**: Disable the tumble duplex option.

SET FINISHING OPTIONS

The Set Finishing Options option accesses the Insert a SETFINISHING Command dialog. Use this dialog select the finishing feature name and related option appropriate to the job and print device.

The SETFINISHING command replaces these deprecated commands:

- BIND_on, BIND_off, BINDDETAILS
- STAPLE_ON, STAPLE_off, STAPLEDETAILS
- OFFSET_on, OFFSET_off

These feature names and their related options are included in the dialog:

FINISHING FEATURE	FEATURE OPTIONS
Staple	ON OFF SinglePortrait RightPortrait BottomLeftPortrait BottomRightPortrait SingleLandscape RightLandscape BottomLeftLandscape BottomRightLandscape DualLeftPortrait DualRightPortrait DualTopPortrait DualBottomPortrait DualLeftLandscape DualRightLandscape DualLandscape DualBottomLandscape CenterLeftPortrait CenterRightPortrait CenterTopPortrait CenterBottomPortrait CenterLeftLandscape CenterRightLandscape CenterTopLandscape CenterBottomLandscape
Offset	ON OFF
Bind	ON OFF LeftPortrait

FINISHING FEATURE	FEATURE OPTIONS
	RightPortrait Longedge Shortedge
Fold	ON OFF CFold ZFold CFoldOutside CFoldInside ZFoldOutside ZFoldInside ZFoldRightHalf HalfFoldOutside HalfFoldInside BookletSquareFoldAndTrim BookletSaddleSquareFoldAndTrim BiFoldInsideAndTrim

FINISHING FEATURE	FEATURE OPTIONS
MakeBooklet	ON OFF BookletFold BookletSaddleStitch
Punch	ON OFF TopPortrait: Two TopPortrait: Three TopPortrait: Four TopPortrait: System BottomPortrait: Two BottomPortrait: Three BottomPortrait: Four BottomPortrait: System RightPortrait: Two RightPortrait: Three RightPortrait: Four RightPortrait: System LeftPortrait: Two LeftPortrait: Three LeftPortrait: Four LeftPortrait: System TopLandscape: Two TopLandscape: Three TopLandscape: Four TopLandscape: System BottomLandscape: Two BottomLandscape: Three BottomLandscape: Four BottomLandscape: System RightLandscape: Two

FINISHING FEATURE	FEATURE OPTIONS
	RightLandscape: Three RightLandscape: Four RightLandscape: System LeftLandscape: Two LeftLandscape: Three LeftLandscape: Four LeftLandscape: System

SET STAPLE OPTION

The Set Staple Option option accesses the Insert a STAPLE Option dialog. Use this dialog to insert an **STAPLE_on** or **STAPLE_off** command at the current cursor position.

SET JOG OPTION

Set Jog Option accesses the Insert Jog Option dialog. Use this dialog to turn the page offset on or off. When you have specified the criterion to use, click **OK** to insert the jog option command at the current cursor position.

This field appears on the Insert Jog Option dialog:

Jog Option

JOG_on: enable the page offset option
JOG_off: disable page offset

SET OFFSET OPTION

The Set Offset Option option accesses the Insert Offset Option dialog. Use this dialog to insert an **OFFSET_on** or **OFFSET_off** command at the current cursor position.

SET MSPP OPTION

Set **MSPP** Option accesses the Insert **MSPP_on** Command dialog. Use this dialog to insert an **MSPP_on** command at the current cursor position.

In Multi-Up mode, the **MSPP_on** command allows **ENDOFSET**, **ENDOFRUN**, and **JOG_on** and **JOG_off** to be placed at the beginning of the last physical page rather than at the beginning of the last logical page. By default, VIPP® forces the last logical page on a new physical page to execute the **ENDOFx** command. Although the set remains consistent, this may lead to undesirable page splitting. **MSPP_on** avoids this.

Note: When using **MSPP_on**, the customer application must insert these commands in the position that identifies the first logical page of the last physical page of the set.

SET BINDING OPTION

The Set Binding Option on the DocuSP Options submenu, accesses the Insert Binding Option dialog. Use this dialog to insert an **BIND_on** or **BIND_off** command at the current cursor position.

SET STAPLE DETAILS

The Set Staple Details Option on the DocuSP Options submenu, accesses the Insert STAPLEDETAILS Command dialog.

The stapling options are:

- Single Portrait
- Single Landscape
- Dual Landscape
- Right Portrait
- Right Landscape
- Right Dual Portrait
- Dual Portrait

MARK START OF SET

The Mark Start of Set option on the DocuSP Options submenu accesses the Insert **STARTOFSET** Command dialog. Use this dialog to insert a **STARTOFSET** command at the current cursor position.

The **STARTOFSET** command acts as a set delimiter for DocuSP print jobs only. Only use this command with FreeFlow Print Server. Place this command at the beginning of the first page of a set.

Use the **Insert This Command** box on this screen to insert the command at the current cursor position.

Print File Processing

The Smart Editor produces these options when Print File Processing is selected from the Smart Editor menu:

Start LineMode Processing	Set Job Descriptor Ticket (JDT)	Set Field Separator
Start DataBaseMode Processing	Insert ZSORT Command	Set Blank Stripping Off
Start XML Mode Processing	Skip LineMode Data	Set First+Last Character Stripping On
Set Data File	Set Line Buffer Size	Set OverPrint On
Set Distribution List	Set BackSpacing Option	

START LINEMODE PROCESSING

The Start LineMode Processing option accesses the Insert STARTLM Command dialog. Use this dialog to specify the point at which **LineMode** will begin. This command must precede the line mode data.

These fields appear on the Insert STARTLM Command dialog:

JDT Name

Enter, or browse for the name of the JDT to be started. Select View File to see the contents of the named JDT.

1st JDT Name

When two JDTs are selected, enter or browse for the name of the first JDT to be started. Select View File to see the contents of the named JDT.

1st JDT Page Count

When two JDTs are selected, enter the page count of the first JDT to be started.

Use 2 JDTs

Check this box when two JDTs are used.

START DATABASEMODE PROCESSING

The Start DataBaseMode Processing option accesses the Insert STARTDBM Command dialog. Use this dialog to specify the point at which DataBaseMode will begin.

These fields appear on the Insert STARTDBM Command dialog:

DBM Name

Enter or browse for the JDT name to insert. Select View File to see the contents of the selected file.

Record Grouping

Enter the number of records to read for processing the DBM. The default value is 1.

START XML MODE PROCESSING

The Start XML Mode Processing option accesses the Insert STARTXML Command dialog. Use this dialog to specify the point at which XML Mode begins.

These items appear on the Insert STARTXML Command dialog:

XJT Name

Enter or browse for the name of the **XJT** file to insert. Select **View File** to see the contents of the selected file.

Edit an XPD Item

When any XML job appears in the Resource Notebook section of VI Design Pro window, right-click on **BEGINXPD**, then select **Edit this Cmd or Keyword** from the Smart Editor Menu, which will produce the Edit an XPD Item dialog.

When the Edit an XPD Item dialog is open and you select any XML tag from the top window, the corresponding BTA or BTS actions are highlighted in the lower left window. Each BTA or BTS item has one or more of these actions assigned:

- Start Tag Actions
- End Tag Actions
- Partial Tag Actions

When you choose one of the three tag action tabs in the lower right window, VI Design Pro displays the associated tag action in that window.

When the cursor is placed in the lower left window, and an entry is right-clicked, a pop-up menu displaying these options is produced:

- Insert new BTA definition
- Insert new BTS Definition
- Insert Blank or Comment line
- Delete this item

Insert new BTA definition

Use this selection to enter the new XML variable name for this definition. The **BTA** command starts a tag action definition.

Insert new BTS definition

Use this selection to enter the new XML variable name for this definition. The **BTS** commands starts a tag substitution definition.

Insert Blank or Comment line

Use this selection to add a blank line, or a comment line to the job.

Delete this item

Use this selection to delete the highlighted item from the job.

SET DATA FILE

The Set Data File option accesses the Insert **SETLMFILE** Command dialog. Use this dialog to specify a specific file from which data is to be read.

These fields appear on the Insert **SETLMFILE** Command dialog:

Data File Name

Enter or browse for the name of the data file to insert. Select View File to see the contents of the selected file.

Skip Lines Count

Specify the number of skiplines to ignore when processing this file.

SET DISTRIBUTION LIST

The Set Distribution List option accesses Insert **SETDLFILE** Command dialog. Use this dialog to activate multiple copies of the Distribution List for the current job as an alternate to using the **SETCYCLECOPY** command.

These fields appear on the Insert **SETDLFILE** Command dialog:

Distribution List

Enter or browse for the distribution list that is to be used with a JDT in order to produce cover pages at the beginning of each document. Select View File to see the contents of the selected file.

JDT Name

Enter or browse for the JDT that is to be used with a distribution list in order to produce cover pages at the beginning of each document. Select View File to see the contents of the selected file.

SET JOB DESCRIPTOR TICKET (JDT)

The Set Job Descriptor Ticket (JDT) option accesses the Insert **SETJDT** Command dialog. Use this dialog to specify a new JDT for subsequent pages in the job.

These fields appear on the Insert **SETJDT** Command dialog:

JDT Name

Enter or browse for the JDT to use. Select View File to see the contents of the selected file.

Skip Page Count

Enter the number of pages to skip prior to applying the JDT.

INSERT ZSORT COMMAND

The Z-Sort Imposition option accesses the Insert **ZSORT** Command dialog. Use this dialog to specify how the simplex or duplex Multi-Up documents will be stacked, and to define slipsheet options.

ZSORT can be used to process single or multiple page documents. If using Database mode and each record

generates the same number of pages, use **Last stack options** 0–3. In any other situation use **Last stack options** 4–5.

Slipsheet Procedure

Enter the VIPP® code to execute at the end of a stack to produce a slipsheet. This procedure is processed by the SLIPSHEET command a nd must be a valid procedure for that command. This procedure may be empty if no slipsheet is desired.

Stack Size

Enter the maximum number of sheets in a stack. The size of the stack is generally based on the maximum number of sheets that can be cut by the post-processing cutter. This size may be adjusted depending upon the amount of printer storage capacity and average amount of data per stack. A reasonable stack size is between 500 and 1000 sheets.

Page Count -1

Enter the number of pages per document minus 1. This is only relevant for Database mode.

Last Stack Options

Choose:

0	Database mode only	shorten the last stack to fit the number of records with continuous duplex
1	Database mode only	add blank logical pages to the last stack to match the stack size with continuous duplex
2	Database mode only	shorten the last stack to fit number of records with non-continuous duplex
3	Database mode only	add blank logical pages to the last stack to match stack size with non- continuous duplex
4	all modes	shorten the last stack to fit the number of records
5	all modes	add blank logical pages to the last stack to match the stack size

Grouping

(Optional) To enter an integer that must be a divider of the multi-up number, enable the **Use grouping** check box . It enables multiple consecutive logical pages on the sheet to be treated in sequence instead of through the stack. The selection and order of these pages is determined by the multi-up filling order (/FillOrder for **SETLAYOUT** or sequence order for **SETMULTIUP**).

SKIP LINEMODE DATA

The Skip LineMode Data option accesses Insert LMSKIP Command dialog. Use this dialog to specify a number of lines or characters, or an array of bytes to skip at the beginning of line mode data.

These fields appear on the Insert LMSKIP Command dialog:

Skip Lines

Activate the **Skip Lines** button to skip lines.

Lines to Skip

Enter the number of lines to skip.

Skip Characters

Activate the **Skip Characters** button to skip characters.

Characters to Skip

Enter the number of characters to skip.

Skip Byte Values

Activate the **Skip Byte Values** button to skip line values.

Byte Values to Skip

Enter the ASCII value of the bytes to skip.

SET LINE BUFFER SIZE

The Set Line Buffer Size option accesses the Insert **SETBUFSIZE** Command dialog. Use this dialog to specify line buffer size info.

Note: When the buffer size is too small, the job aborts with a rangecheck error on the readline or readstring offending command.

These fields appear on the Insert **SETBUFSIZE** Command dialog:

Line Buffer Size

Enter the maximum line length files to be processed.

Fixed Length Records in Data File

Check the **Fixed Length Records in Data File** box to specify that the files to be processed include fixed length records (for example, files with no LF, CR, or CRLF record delimiters).

SET BACKSPACING OPTION

Set **BackSpacing** Option accesses the Insert Backspacing Option dialog. Use this dialog to indicate whether to turn the backspace options on and off and then insert the backspace option command at the current cursor position.

This field appears on the Insert Backspacing Option dialog:

Backspacing Option

Use this box to specify the backspacing option to use:

BACKSP_off	Disable backspace processing.
BACKSPP_on	Enable backspace processing for fixed and proportional fonts.
BACKSPF_on	Enable backspace processing for fixed fonts only.

SET FIELD SEPARATOR

The Set Field Separator option accesses the Insert a **SETDBSEP** Command dialog. Use this dialog to specify the field separator for use in database mode, or for use with RPE entries that use the /FN option, and then insert the separator command at the current cursor position.

Any subsequent **STARTDBM** commands will use this field separator to scan fields in a database file.

Note: Do not place the **SETDBSEP** command in a Data Base Master file.

This field appears on the Insert a **SETDBSEP** Command dialog:

Field Separator

Enter the character that is used to separate fields in the files to be processed. You must enclose the character in parentheses; for example, (:).

SET BLANK STRIPPING OFF

The Set Blank Stripping Off option accesses the Insert a **BSTRIP_off** Command dialog. Use this dialog to insert a **BSTRIP_off** command at the current cursor position.

The **BSTRIP_off** command disables the stripping of leading and trailing blanks in delimited fields in database mode.

Note:

- Do not insert a **BSTRIP_off** command in the Data Base Master at the beginning of the database file before the **STARTDBM** command.
- Do not insert a **BSTRIP_off** command in an external Job Descriptor Ticket that is referenced by a **SETJDT** command placed before the **STARTDBM** command in the database file.

Use the **Insert This Command** box on this screen to insert the command at the current cursor position.

SET FIRST - LAST CHARACTER STRIPPING ON

The Set First+Last Character Stripping On option accesses the Insert **QSTRIP_on** Command dialog. Use this dialog to insert a **QSTRIP_on** command at the current cursor position.

The **QSTRIP_on** command strips the first and last characters, generally quotes, from every delimited field in database mode.

Note:

- Do not insert a **QSTRIP_on** command in the Data Base Master at the beginning of the database file before the **STARTDBM** command.
- Do not insert a **QSTRIP_on** command in an external Job Descriptor Ticket that is referenced by a **SETJDT** command placed before the **STARTDBM** command in the database file.

Use the **Insert This Command** box on this screen to insert the command at the current cursor position.

SET OVERPRINT ON

The Set OverPrint On option accesses the Insert **OVERPRINT_on** Command dialog. Use this dialog to insert an **OVERPRINT_on** command at the current cursor position.

The **OVERPRINT_on** command enables overprint processing in line mode, thus enabling the printing of lines of data over each other when each line ends with a single Carriage Return (CR) instead of a LF or CR/LF.

Note: You must place the **OVERPRINT_on** command before the **SETCYCLECOPY** command when these commands are used together. In addition, when using the **OVERPRINT_on** command on a Xerox 4220/4230 printer, the printer must be set to **BINARY POSTSCRIPT**. Otherwise, you must encapsulate the print file with the required escape sequences.

Caution: Use this command only when necessary as it may impact performance.

Use the Insert This Command box on this screen to insert the command at the current cursor position.

Cyclecopy Control

The Smart Editor produces these options when Cyclecopy Control is selected from the Smart Editor menu:

Set Collation Option	Set CheckPoint	Insert Repeat
Set Number of CycleCopies		

SET COLLATION OPTION

Set Collation Option accesses the Insert Collation Option dialog. Use this dialog to indicate whether to turn Database or cyclecopy mode collation on or off and then insert the collation option command at the current cursor position.

This field appears on the Insert Collation Option dialog:

Collation Option

Use this field to specify the collation option:

COLLATE_on	Enable collating for cycle copy mode. When you select this item, multiple copies are created on a job or set basis.
COLLATE_dbm	Enable a new collation mode in database mode. With this collation mode enabled, the Data Base Master is called for each record the number or times specified in the SETCYLECCOPY command.
COLLATE_off	Disable collating. When you select this item, the copies are immediately produced after each logical page.

SET NUMBER OF CYCLECOPIES

The Set Number of **CycleCopies** option accesses the Insert SETCYCLECOPY Command dialog. Use this dialog to indicate the number of cycle copies and then insert the **cyclecopy** command information at the current cursor position.

This field appears on the Insert SETCYCLECOPY Command dialog:

Number of Copies

Enter the number of copies of each page.

SET CHECKPOINT

The Set CheckPoint option accesses the Insert **CHKPOINT** Command dialog. Use this dialog to insert a **CHKPOINT** command at the current cursor position.

The **CHKPOINT** command defines an end of set point for cycle copy in collate mode. By default, the end of set point is the end of the file in line mode. There is no default end of set point in native mode. In general, this command is intended to indicate a set delimiting point to produce multiple copy sets using **SETCYCLECOPY**.

Use the **Insert This Command** box on this screen to insert the command at the current cursor position.

INSERT REPEAT

The Insert Repeat option accesses the Insert REPEAT Command dialog. Use this dialog to indicate the number of times a cycle copy command is repeated. The information is inserted at the current cursor position.

These fields appear on the Insert REPEAT Command dialog:

- Command to Execute: Enter a command to repeat.
- Repeat Value: Enter the number of times the command is repeated.

Page Control

The Smart Editor produces these options when Page Control is selected from the Smart Editor menu:

Set Page Break	Print Current Page, New Sheet	Print Current Page, Front of New Sheet
Skip Printing Current Page	Print Current Page, Back of New Sheet	Start a New Stack
Print Current Page		

SET PAGE BREAK

The Set Page Break option accesses the Insert **SETPBRK** Command dialog. Use this dialog to insert a **SETPBRK** command at the current cursor position.

The **SETPBRK** command specifies any string as a page delimiter. When this string is detected, the line on which it appears can be one of these:

- Last line of the current page
- First line of a new page
- Non-printable page delimiter
- Split into a left part and a right part

These fields appear on the Insert SETPBRK Command dialog:

Delimiter String

Enter a delimiter string.

Matching Line Position

Use this field to select from these options:

- 0: Matching line is last line
- 1: Matching line is first line

Matching Line Content

Use this field to select from these options:

- 0: Print left part when not empty
- 1: Print left part
- 2: Print right part
- 3: Print the complete line
- 4: Print none

Looping

Use this field to select from these options:

- 0: Loop on right part
- 1: Do not loop on right part

SKIP PRINTING CURRENT PAGE

The Skip Printing Current Page option accesses the Insert SKIPPAGE Command dialog. Use this dialog to insert a **SKIPPAGE** command at the current cursor position.

The **SKIPPAGE** command causes the current page to be skipped and not printed. This command is intended to be used in a **BEGINPAGE** procedure under the control of an **IF/ELSE/ENDIF** statement.

Use the **Insert This Command** box on this screen to insert the command at the current cursor position.

PRINT CURRENT PAGE

The Print Current Page option accesses the Insert **PAGEBRK** Command dialog. Use this dialog to insert a **PAGEBRK** command at the current cursor position.

The **PAGEBRK** command prints the current page and resets the main and secondary print positions (PP) to 0,0. This command is the only end of page marker in native mode. In line mode, end of page also occurs when Form Feed or channel skip are encountered. In Multi-Up mode, **PAGEBRK** skips to the next logical page. When nothing is imaged on the page, **PAGEBRK** does not produce a blank page. To produce a blank page, you must use, at a minimum, NL **PAGEBRK**.

Use the **Insert This Command** box on this screen to insert the command at the current cursor position.

PRINT CURRENT PAGE, NEW SHEET

The Print Current Page, New Sheet option accesses the Insert **NEWSIDE** Command dialog. Use this dialog to insert a **NEWSIDE** command at the current cursor position.

In Multi-Up mode, the **NEWSIDE** command forces the current logical page to print on the next physical page. You must insert the **NEWSIDE** command after a page delimiter, for example, after a **PAGEBRK**, Form Feed, or Skip to channel one.

Use the **Insert This Command** field on this screen to insert the command at the current cursor position.

PRINT CURRENT PAGE, BACK OF NEW SHEET

The Print Current Page, Back of New Sheet option accesses the Insert **NEWBAK** Command dialog. Use this dialog to insert a **NEWBACK** command at the current cursor position.

In duplex mode, the **NEWBACK** command forces the current page to print on the next available back of a sheet. You must insert the **NEWBACK** command after a page delimiter, for example, after a **PAGEBRK**, Form Feed, or Skip to channel one.

Use the **Insert This Command** box on this screen to insert the command at the current cursor position.

PRINT CURRENT PAGE, FRONT OF NEW SHEET

The Print Current Page, Front of New Sheet option accesses the Insert **NEWFRONT** Command dialog. Use this dialog to insert a **NEWFRONT** command at the current cursor position.

The **NEWFRONT** command forces the current page to print on the front of a new sheet. You must insert the **NEWFRONT** command after a page delimiter, for example, after a **PAGEBRK**, Form Feed, or Skip to channel one.

Use the **Insert This Command** field on this screen to insert the command at the current cursor position.

START A NEW STACK

The Start a New Stack option accesses the Insert NEWSTACK Command dialog. Use this dialog to insert a **NEWSTACK** command at the current cursor position and is only available when using the generic mode of **ZSORT**.

The **NEWSTACK** command ends the current **ZSORT** stack with all records processed so far, and begins a new stack. It is intended to be used inside a conditional statement to start a new stack when the condition is true.

NEWSTACK must be placed before page initialization, before any **MOVETO** or mark on the page.

Use the **Insert This Command** box on this screen to insert the command at the current cursor position.

PDF Interactive Features

The Smart Editor produces these options when PDF Interactive Features is selected from the Smart Editor menu:

Set PIF	Set PDF Destination	Set PDF Info
Index PIF	Set PDF Open Mode	Set PDF Bound
Create Bookmark	Draw PDF Fillable Form	

SET PIF

The Set PIF option accesses the Insert **SETPIF** Command dialog. Use this dialog to insert a **SETPIF** command at the current cursor position.

The **SETPIF** command defines a *PIF* destination or note that will be associated with the next and only element imaged on the page using either **SHP**, **SHMF**, **SHX**, **ICALL**, **SCALL**, **DRAWB**, or **BOOKMARK**.

The appearance of the Insert **SETPIF** Command dialog changes according to the *PIF* type selected.

PIF Type

This field appears on all Insert **SETPIF** Command dialogs. Use it to select one of the following *PIF* types:

- null: Use this to cancel any active PIF definition. Because active PIFs are automatically cancelled when associated with an element, there is rarely any reason to use this option.
- /PAGE
- /DEST
- /XPAGE
- /XDEST
- /FILE
- /URI
- /NOTE

PIF Type: /PAGE

These fields appear when you select a *PIF* type of /PAGE on the Insert **SETPIF** Command dialog.

Page Number

Enter the page number.

View

Choose from these options to set the /PAGE view:

null	Use the current view
/Fit	Fit the page to the window
/FitB	Fit the bounding box of the page contents to the window
/FitR	Fit the rectangle specified by the parameters to the window

/FitH	Fit the width of the page to the window, this box enables the Top field
/FitV	Fit the height of the page to the window, this box enables the Left field
/XYZ	Place the origin of the window at left top current units of the page origin. This box enables the Left, Top, and Zoom fields

Left

Enter in current units the left origin of the view. This field is enabled when the /FitV or /XYZ options are selected.

Top

Enter in current units the top origin of the view. This field is enabled when the /FitH or /XYZ option is selected.

Zoom

Enter the zoom value. This field is enabled when the /XYZ option is selected.

PIF Type: /DEST

This field appears when you select a *PIF* type of /DEST on the Insert **SETPIF** Command dialog.

Destination Name

Enter the destination for this *PIF*.

PIF Type: /XPAGE

These fields appear when you select a *PIF* type of /XPAGE on the Insert **SETPIF** Command dialog.

File Reference

Enter the reference for the *PIF* file.

Page Number

Enter the page number for this *PIF*.

View

Choose from these options to set the /XPAGE view:

null	Use the current view
/Fit	Fit the page to the window
/FitB	Fit the bounding box of the page contents to the window
/FitR	Fit the rectangle specified by the parameters to the window
/FitH	Fit the width of the page to the window, this box enables the Top field
/FitV	Fit the height of the page to the window, this box enables the Left field
/XYZ	Place the origin of the window at left top current units of the page origin. This box enables the Left, Top, and Zoom fields

Left

Enter in current units the left origin of the view. This field is enabled when the /FitV or /XYZ options are selected.

Top

Enter in current units the top origin of the view. This field is enabled when the /FitH or /XYZ option is selected.

Zoom

Enter the zoom value. This field is enabled when the /XYZ option is selected.

PIF Type: /XDEST

These fields appear when you select a *PIF* type of /XDEST on the Insert **SETPIF** Command dialog.

File Reference

Enter the file reference for this *PIF*.

Destination Name

Enter the destination for this *PIF*.

PIF Type: /FILE

This field appears when you select a *PIF* type of /FILE on the Insert **SETPIF** Command dialog.

File Reference

Enter the file reference for this *PIF*.

PIF Type: /URI

This field appears when you select a *PIF* type of /URI on the Insert **SETPIF** Command dialog.

URI String

Enter the URI string.

PIF Type: /NOTE

These fields appear when you select a PIF type of /NOTE on the Insert **SETPIF** Command dialog.

Title

Enter the title.

Contents

Enter the text.

Specify optional parameters

To enable the optional parameter selection, select the check box for the **Specify optional parameters**.

Note Type

Choose from among these note types:

- /Note
- /Comment
- /Help

- /Insert
- /Key
- /New Paragraph
- /Paragraph
- /Draft
- /Approved
- /Experimental
- /NotApproved
- /AsIs
- /Expired
- /NotForPublicRelease
- /Confidential
- /Final
- /Sold
- /Departmental
- /ForComment
- /TopSecret
- /ForPublicRelease
- /FT
- /MK

Color

Choose a background color for the note.

Option

Choose any combination.

- The note is presented open
- Center note icon on anchor element

INDEX PIF

The Index *PIF* option accesses the Insert **INDEXPIF** Command dialog. Use this dialog to insert an **INDEXPIF** command at the current cursor position.

The **INDEXPIF** command associates an *PIF* destination or note with a PIF index. Once defined by **INDEXPIF**, a *PIF* index follows the same rules and behaviors as a color index defined by **INDEXCOLOR**.

The appearance of the Insert **INDEXPIF** Command dialog changes according to the *PIF* type selected.

PIFIndex

Enter the name to use for the PIF index.

PIF Type

Use this box to select one of the following *PIF* types:

- null: Use this to define a PIF index to cancel the current one. This is only useful when on a fragment of text inside a string printed by SHP or SHMF, when used in any i manner the PIF index is automatically cancelled when it is associated with an element.
- /PAGE
- /DEST
- /XPAGE
- /XDEST
- /FILE
- /URI
- /NOTE

PIF Type: /PAGE

These fields appear when you select a *PIF* type of /PAGE on the Insert **INDEXPIF** Command dialog.

PIF Type: /PAGE

Page Number

Enter the page number

Page View

Choose from these options to set the /PAGE view:

null	use the current view
/Fit	fit the page to the window
/FitB	fit the bounding box of the page contents to the window
/FitR	fit the rectangle specified by the parameters to the window
/FitH	fit the width of the page to the window, this box enables the Top field
/FitV	fit the height of the page to the window, this box enables the Left field
/XYZ	place the origin of the window at left top current units of the page origin. This box enables the Left, Top, and Zoom fields

- **Left**: Enter in current units the left origin of the view. This field is enabled when the /FitV or /XYZ options are selected.
- **Top**: Enter in current units the top origin of the view. This field is enabled when the /FitH or /XYZ option is selected.
- **Zoom**: Enter the zoom value. This field is enabled when the /XYX option is selected.

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PIF Type: /DEST

This field appears when you select a *PIF* type of /DEST on the Insert **INDEXPIF** Command dialog.

Destination Name

Enter the destination for this *PIF*.

PIF Type: /XPAGE

These fields appear when you select a *PIF* type of /XPAGE on the Insert **INDEXPIF** Command dialog.

File Reference

Enter the reference for the *PIF* file.

Page Number

Enter the page number for this *PIF*

Page View

Choose from these options to set the /XPAGE view:

null	Use the current view
/Fit	Fit the page to the window
/FitB	Fit the bounding box of the page contents to the window
/FitR	Fit the rectangle specified by the parameters to the window
/FitH	Fit the width of the page to the window, this box enables the Top field
/FitV	Fit the height of the page to the window, this box enables the Left field
/XYZ	Place the origin of the window at left top current units of the page origin. This box enables the Left, Top, and Zoom fields

- **Left**: Enter in current units the left origin of the view. This field is enabled when the /FitV or /XYZ options are selected.
- **Top**: Enter in current units the top origin of the view. This field is enabled when the /FitH or /XYZ option is selected.
- **Zoom**: Enter the zoom value. This field is enabled when the /XYX option is selected.

PIF Type: /XDEST

These fields appear when you select a *PIF* type of /XDEST on the Insert **INDEXPIF** Command dialog.

File Reference

Enter the file reference for this *PIF*.

Destination Name

Enter the destination for this *PIF*.

PIF Type: FILE

This field appears when you select a *PIF* type of /FILE on the Insert **INDEXPIF** Command dialog.

File Reference

Enter the file reference for this *PIF*.

PIF Type: /URI

This field appears when you select a *PIF* type of /URI on the Insert INDEXPIF Command dialog

URI String

Enter the URI string

PIF Type: /NOTE

These fields appear when you select a *PIF* type of /NOTE on the Insert **INDEXPIF** Command dialog.

Title

Enter the title.

Contents

Enter the text.

Specify optional parameters

Select this check box to enable optional parameters.

Note Type

Choose from among these note types:

- /Note
- /Comment
- /Help
- /Insert
- /Key
- /New Paragraph
- /Paragraph
- /Draft
- /Approved
- /Experimental
- /NotApproved
- /AsIs
- /Expired
- /NotForPublicRelease
- /Confidential

- /Final
- /Sold
- /Departmental
- /ForComment
- /TopSecret
- /ForPublicRelease
- /FT
- /MK

Color

Choose a background color for this note.

Option

Choose any combination

- The note is presented open
- Center note icon on anchor element

CREATE BOOKMARK

The Create Bookmark option accesses the Insert BOOKMARK Command dialog. **BOOKMARK** creates an interactive bookmark within a PDF file.

These fields appear on the Insert BOOKMARK Command dialog:

Input String

To create the bookmark, enter the string used.

Specify optional parameters

To enable the optional parameter fields, select the check box for **Specify optional parameters**.

Specify extended bookmark

To enable the extended bookmark fields, select the check box for **Specify extended bookmark**.

Sub-bookmark Count

Enter the number of sub-bookmarks that follow the bookmark. To indicate that the bookmark is open when the file is accessed initially, enter a positive number. To indicate that the bookmark is closed at initial access, enter a negative number.

Color

To select the color of the bookmark text, use the list.

Style

To select the style of the bookmark text, select an option:

- 0: Plain, default
- 1: Italic
- 2: Bold
- 3: Bold and italic

Option 1

This option is available when you use the extended bookmark feature with the VI eCompose software. The Option 1 feature tells the VIeC splitter how to handle the child PDF file. Choose one of the following options:

- 0: Do not produce a child PDF file.
- 1: Produce a child PDF file, but do not include the bookmark in the PDF.
- 2: Produce a child PDF file, and include the bookmark in the PDF. This setting is the default.

If there is no extended bookmark, the splitter behavior defaults to 2.
All extended bookmarks for a given sub-document require the same Option 1 value.

Option 2

This option is available when you use the extended bookmark feature with the VI eCompose software. Option 2 tells the VIeC splitter how to handle the extended bookmark. Choose one of the following options:

- 0: Do nothing with the extended bookmark.
- 1: Merge the extended bookmark with the associated regular bookmark for index file processing, but do not include the bookmark in a child PDF file.
- 2: Merge the extended bookmark with the associated regular bookmark for index file processing, and include the bookmark in the child PDF file.

To insert comments or instructions in the main PDF file, use the option 0.
Entering a combination of Option 1=0 and Option 2=2 is the same as entering Option 2=1.

SET PDF DESTINATION

The Set PDF Destination option accesses the Insert PDFDEST Command dialog. **PDFDEST** defines a named destination, which can be referenced in a PIF definition.

These fields appear on the Insert PDFDEST Command dialog:

Destination name

Use this field to enter the destination name as an alphanumeric string.

Specify optional parameters

Select the **Specify optional parameters** fields to enable the optional parameter fields.

Page number

Enter the page number of the destination.

View

Use this box to define how to adjust the view for the destination.The possible values are:

null	Use the current view
/Fit	Fit the page to the window
/FitB	Fit the bounding box of the page contents to the window
/FitR	Fit the rectangle specified by the parameters to the window
/FitH	Fit the width of the page to the window, this box enables the Top field
/FitV	Fit the height of the page to the window, this box enables the Left field
/XYZ	Place the origin of the window at "left top" current units of the page origin. This box enables the Left, Top, and Zoom fields

Top

Place the top origin of the window at top current units of the page origin.

Left

Place the left origin of the window at left current units of the page origin.

Zoom

Place the origin of the window at left top current units of the page origin.

SET PDF OPEN MODE

The Set PDF Open Mode option accesses the Insert PDFOPEN Command dialog. **PDFOPEN** defines how a PDF document will be opened. When associated with a *PIF* destination it also defines a destination to be used when the document is opened.

This field appears on the Insert PDFOPEN Command dialog:

Open mode

Use this box to select the mode used when the document is opened. It may be one of these options:

/UseNone	Open the PDF but do not display bookmarks or thumbnail images
/UseOutlines	Open and display bookmarks
/UseThumbs	Open and display thumbnail images
/FullScreen	Open in full screen mode

SET PDF INFO

The Set PDF Info option accesses the Insert PDFINFO Command dialog. **PDFINFO** populates the Document Summary section of the PDF file with information.

These fields appear on the Insert PDFINFO Command dialog:

Author

Use this field to enter the author of the document.

Creator

Use this field to enter the creator of the document.

Title

Use this field to enter the title of the document.

Subject

Use this field to enter the subject of the document.

Keywords

Use this field to enter a list of Keywords used in the document.

SET PDF BOUND

The Set PDF Info option accesses the Insert PDFBOUND Command dialog. PDFBOUND enables the creation of optional page boundary boxes in a PDF output created by a VIPP® job. This command does not alter the PDF contents other than by adding the additional bounding boxes in the page.

These fields appear on the Insert PDFBOUND Command dialog:

PDF BoundBox

To insert a parameter, select one of the following options:

- /CropBox
- /BleedBox
- /TrimBox
- /ArtBox

Offsets from page borders

The values in current units entered in the following boxes define the location of the BoundBox. Placement of the BoundBox is from the edges of the page. The page is from MediaBox, as defined by **SETPAGESIZE**.

To define the distance from the edge of the page to the PDF BoundBox, enter a value in the following boxes:

- **Top**: This option is the number of current units from the top of the page to the top of the BoundBox.
- **Bottom**: This option is the number of current units from the bottom of the page to the bottom of the BoundBox.
- **Left**: This option is the number of current units from the left side of the page to the left side of the BoundBox.
- **Right**: This option is the number of current units from the right side of the page to the right side of the BoundBox.

DRAW PDF FILLABLE FORM

The Draw PDF Fillable Form option accesses the Edit DRAWPFF Command dialog box.

The DRAWPFF feature draws and inserts a PDF form field in a PDF document at the current, secondary print

position. PDF form fields are intended to be filledin by a user (recipient) and the PDF sent back (submitted) to a process designed to extract the field contents and store them in a database. The command is effective when the VIPP® job is rendered into a PDF document. When the job is simply imaged, either onscreen or on paper, only the initial image of the field, as displayed when the PDF document is opened, is drawn.

DRAWPFF can create 11 different types of form fields as detailed in the syntax. Form fields are included in the PDF using the AcroForm specifications. For more information, refer to Adobe *Interactive Forms* documentation.

Type	/TL - Text field (single-line) /TB - Text box (multi-lines) /CB - Check box /RB - Radio button /PL - Pull down list /CL - Combo box (free typing allowed) /LB - List box /RS - Reset form button /SF - Submit form button /SI - Digital Signature /PR - Print Form Button
Width	Is the width of the field rectangle in current units.
Height	Is the height of the field rectangle in current units.

Align	Indicates which point of the field must be aligned on the secondary print position 0: top left (default) 1: top right 2: top center 10: bottom left 11: bottom right 12: bottom center 20: center left 21: center right 22: center center
Options	Present a collection of optional key/value pairs: **/FName**: Field name Type string Default value none Description: A name to identify the field at extraction time. Must be different for each field, except for a set of radio buttons, which must share the same name. **/FDesc**: Field alternate description Type string Default value none Description: An alternate field name to be used in place of the actual field name wherever the field must be identified in the user interface, such as in error or status messages referring to the field. This text is useful when extracting the document contents in support of accessibility to users with disabilities or for other purposes. **/FMap** Field mapping name Type string Default value none Description The mapping name to be used when exporting PDF form field data **/ReadOnly** Read only flag Type integer Default value 0 Description 0 - field can be changed 1: field cannot be changed **/Required** Required flag

	Type integer Default value 0 Description 0 - field can be left empty 1: field cannot be left empty **/NoExport** Export flag Type integer Default value 0 Description: 0 - field is exported 1: field is not exported **/NoPrint**: Print flag Type integer Default value 0 Description: 0 - field prints 1: field does not print **/MulSel**: Multiple selection flags (LB only) Type integer Default value 0 Description: 0 - only one selection allowed 1: multiple selections allowed **/FValue**: Field value (TL, TB, PL, CL, LB only) Type string Default value none Description: Preset value displayed when the PDF is opened. **/DValue**: Default field value Type string Default value none Description: Value displayed when pressing the reset button. **/IState**: Preset state for check boxes and radio buttons. Must be coded only with the first radio button in a set. Type integer Default value 0 Description: 0 - off state

	1: on state for check box or first radio button >1: on state for other radio buttons (button order number) **/FChoices** Array of value choices (PL, CL, LB only) Type Array of strings OR array of [export display] strings Default value none Description List of choices presented to the user. When [export display] format is used the export strings are used for export and the display strings are used for presentation onscreen. **/TAlign** Field text alignment in the field Type integer Default value 0 Description 0: left 1: right 2: center **/BColor** Field border color Type Color key (Gray, RGB and CMYK color only) Default value none (transparent) Description Color of the field border **/FColor** Field background color Type Color key (Gray, RGB, CMYK, Gradient and pattern color only) Default value none (transparent) Description Color of the field border **/VColor** Field value color Type Color key (Gray, RGB and CMYK color only) Default value none (transparent) Description Color of the field value **/BStyle** Field border style Type [width/style] Default value [1 /s] Description Border style: - border width in points - border style is one of: /S solid

	/D dashed /B embossed /I engraved /U underline **/FCaption** Field caption (CB, RB, RS and SF only) Type string Default value check sign (CB) or bullet (RB) Description For check box and radio button: <hex code> (refer to the caption table below) for reset and submit buttons: (text string) **/TSplit** Split text field (TL, TB only) Type integer Default value 0 Description 0: no split >0: number of splits and max length **/To** Submission destination (SF only) Type URL string Default value none Description Email or Web server URL where the form extraction (in FDF or PDF format) is sent. **/SubmitPDF** Submission format (SF only) Type integer Default value 0 Description 0: submit as FDF format 1: submit as PDF format 2: submit as HTML format 3: submit as XFDF format **/TFName** A font name for field value. Limited to the following list: /Helv /HeBo /HeOb /HeBO (Helvetica) /TiRo /TiBo / Tilt /TiBI (Times-Roman) /Cour /CoBo /CoOb /CoBO (Courier). Type /name Default value /Helv

	/TFSize A font size for field value Type integer (points) Default value 0 Description 0 - auto-scalable >0: fixed font size **/FImage** A field background image Type String (image name of a TIFF, JPEG or EPS) Default value none Description Image to be used as field background (alternative to FColor)

Job Data Capture

The Job Data Capture option accesses the Insert ACCLOG Command dialog window.

The **ACCLOG** command is effective only when the Demographics feature is activated. It is used to capture data when a VIPP® job processes, then log the data into the demographics output file (.vpr or .vpd).

Label

Use this box to enter a string or variable that will identify the information entered in the Contents window.

Contents

Use this box to enter a string or variable containing the information to be captured.

Custom Color Lists

The **Custom Color Lists** option accesses the Custom Color Lists dialog. The dialog displays the custom colors defined in `\xgf\src\scoat.cck` and `\xgf\src\sucoat.cck`. Use color lists to group and name the large number of approximately 1000 custom colors defined in the CCK files.

Any custom color lists that have a check mark are used by the SmartEditor and VI Design Pro in dialogs, such as Insert **INDEXCOLOR** or Insert **SETTXC**, when displaying lists of colors.

The following fields appear on the Custom Color Lists dialog:

Custom Color Palette

This window contains a list and a sample of each color included in the CCK files. To access the colors included in the CCK files, edit the `\xgf\src\xgfdos.run` file.
If you print on coated paper, use `scoat.cck`. If you print on uncoated paper, use `sucoat.cck`.
After colors are added to the Custom Color Palette window, you can select or deselect the colors using the left mouse button and the Shift or Ctrl keys on the keyboard.

Custom Color Lists

The Custom Color Lists window contains the names of the custom color lists that you define. When a check mark appears next to the list name, the colors in the list are added to all dialogs that provide color choices, along with pre-defined VIPP® colors.

Save to List

To add the selected colors to the custom color list highlighted in the lower dialog window, click **Save to List**.

Deselect All

To clear all the color choices, click **Deselect All**.

Select All

To select all colors shown in the upper dialog window, click **Select All**.
Selected colors are highlighted. To add or remove individual colors from the selections, press the Ctrl key and click the color.

Add List

To create a new color list, click **Add List**. The Custom Color Lists Dialog appears. Enter the name of the new color list, then click **OK**. The new color list name appears in the lower dialog window.

Delete List

To delete a highlighted custom color list, click **Delete List**.

Rename List

To rename a highlighted custom color list, click **Rename List**.

Dialog Cross Reference

The following is an alphabetized list of commands and their location in this document.

PAGE	COMMAND	VDP MENU OPTIONS
Set Absolute Position Mode	ABSPOS	Page Marking
Job Data Capture	ACCLOG	Job Data Capture
Draw AZTEC Barcode	AZTEC	Page Marking
Set BackSpacing Option	BACKSP_off, BACKSPP_on, BACKSPF_on	Print File Processing
New BEGINRPE, FROMLINE, or RPEKEY Group	BEGINRPE, FROMLINE, RPEKEY	RPE Items
Insert Table	BEGINTABLE	Page Marking
Set Data File	BEGINXPD, BTA, BTS	Print File Processing
Set Booklet Range to Print	BOOKLETRANGE	Output Device Control
Create Bookmark	BOOKMARK	PDF Interactive Features
Set Blank Stripping Off	BSTRIP_off	Print File Processing
Set CheckPoint	CHKPOINT	Cyclecopy Control
Set Collation Option	COLLATE_on, COLLATE_dbm, COLLATE_ off	Cyclecopy Control
Draw Cut Marks	CUTMARK	Page Marking
Draw DataMatrix Barcode	DATAMATRIX	Page Marking
Define Layout	DEFINELAYOUT	Fonts, colors, and variables
Draw Box/Circle/Ellipse	DRAWB and DRAWC	Page Marking
Draw Linear Numeric Barcode	DRAWBC	Page Marking
Draw DDG Charts (bar/curve/pie/Pareto/ radar)	DRAWBAR, DRAWCRV, DRAWPIE, DRAWPAR, DRAWRDR	Page Marking
Draw Path	DRAWPATH	Page Marking
Draw Path	DRAWPATHR	Page Marking
Draw PDF Fillable Form	DRAWPFF	PDF Interactive Features
Draw Polygon	DRAWPOL	Page Marking
Set Duplex Option	DUPLEX_on, DUPLEX_off, TUMBLEDUPLEX_on, TUMBLEDUPLEX_ off,	Output Device Control

PAGE	COMMAND	VDP MENU OPTIONS
End a Booklet	ENDBOOKLET	Output Device Control
Cancel Clipping Area	ENDCLIP	Page Marking
Mark End of Run	ENDOFRUN	Output Device Control
Mark End of Set	ENDOFSET	Output Device Control
Fill OMR Grid	FILLOMR	Page Marking
Shift Form Origin	FORMSHIFT	Page Layout
New GETFIELD Command	GETFIELD	RPE Items
Go to Specified Frame	GOTOFRAME	Page Layout
Insert Image	ICALL	Page Marking
Set Ignore BadTiffs Option	IGNOREBT_on, IGNOREBT_off	Page Marking
Index Align	INDEXALIGN	Fonts, colors, and variables
Index BAT Key	INDEXBAT	Fonts, colors, and variables
Index Color	INDEXCOLOR	Fonts, colors, and variables
Index Font	INDEXFONT	Fonts, colors, and variables
Index Font Kerning	INDEXKERN	Fonts, colors, and variables
Index Line Spacing	INDEXLSP	Fonts, colors, and variables
Index PIF	INDEXPIF	PDF Interactive Features
Index Sub/Superscript	INDEXSST	Fonts, colors, and variables
Set Reverse Mode Option	IREVERSE_on, IREVERSE_off	Page Marking
Set Jog Option	JOG_on, JOG_off	Output Device Control
Skip LineMode Data	LMSKIP	Print File Processing
Draw MaxiCode Barcode	MAXICODE	Page Marking
Move X and Y Position	MOVETO, MOVEHR	Page Marking
Set MSPP Option	MSPP_on	Output Device Control
Print Current Page, Back of New Sheet	NEWBACK	Page Control

PAGE	COMMAND	VDP MENU OPTIONS
Go to Next Frame	NEWFRAME	Page Layout
Print Current Page, Front of New Sheet	NEWFRONT	Page Control
Print Current Page, New Sheet	NEWSIDE	Page Control
Set Page Break	NEWSTACK	Page Control
Initialize OMR Code for Mailer	OMRINIT	Page Layout
OneUp/TwoUpPrinting	ONEUP, TWOUP	Page Layout
Set Coordinate Origin	ORIBL, ORITL	Page Layout
Set OverPrint On	OVERPRINT_on	Print File Processing
Print Current Page	PAGEBRK	Page Control
Set Page Range to Print	PAGERANGE	Output Device Control
Draw PDF417 Barcode	PDF417	Page Marking
Set PDF Boundaries	PDFBOUND	PDF Interactive Features
Set PDF Destination	PDFDEST	PDF Interactive Features
Set PDF Info	PDFINFO	PDF Interactive Features
Set PDF Open Mode	PDFOPEN	PDF Interactive Features
Set Page Orientation	PORT, IPORT, LAND, ILAND	Page Layout
Draw QRCode Barcode	QRCODE	Page Marking
Set First+Last Character Stripping On	QSTRIP_on	Print File Processing
Insert Repeat	REPEAT	Cyclecopy Control
Reset Current Context	RESET	Fonts, colors, and variables
Save Current Context	RSAVE	Fonts, colors, and variables
Insert RUN (VIPP® or PostScript)	RUN	Page Marking
Insert RUNDD (Decomposed Docs)	RUNDD	Page Marking
Insert RUNTIF (Multi-page TIF)	RUNTIF	Page Marking
Save Secondary Print Position	SAVEPP	Page Marking
Insert Segment	SCALL	Page Marking
Set Line Buffer Size	SETBUFSIZE	Print File Processing
Set Color Definition	SETCOL	Fonts, colors, and

PAGE	COMMAND	VDP MENU OPTIONS
		variables
Set Column Width	SETCOLWIDTH	Page Layout
Set Number of CycleCopies	SETCYCLECOPY	Cyclecopy Control
Set Date	SETDATE	Fonts, colors, and variables
Set Field Separator	SETDBSEP	Print File Processing
Set Distribution List	SETDLFILE	Print File Processing
Set Finishing Options	SETFINISHING	Output Device Control
Set Font	SETFONT	Fonts, colors, and variables
Set Form/BackForm	SETFORM	Page Layout
Set Page Frame	SETFRAME	Page Layout
Set GEP Definition	SETGEP	Fonts, colors, and variables
Set Page Grid	SETGRID	Page Layout
Set Indentation (for SHP)	SETINDENT	Page Marking
Set Job Descriptor Ticket (JDT)	SETJDT	Print File Processing
Set Font Kerning	SETKERN	Fonts, colors, and variables
Set Layout	SETLAYOUT	Fonts, colors, and variables
Set LineFeed Increment	SETLFI	Page Layout
Set Linked Frames Mode	SETLKF	Page Layout
Set LineSpacing Value	SETLSP	Page Layout
Set Page Margins	SETMARGIN	Page Layout
Set Max Forms/BackForms	SETMAXFORM	Page Layout
Set Media Requirements	SETMEDIA	Output Device Control
Set Page Definitions	SETPAGEDEF	Page Layout
Set Page Numbering	SETPAGENUMBER	Page Layout
Set Page Size	SETPAGESIZE	Page Layout
Set Params (DDG, FILLOMR, Format...)	SETPARAMS	Page Marking

PAGE	COMMAND	VDP MENU OPTIONS
Set Page Break	SETPBRK	Page Control
New Page Criteria Definition (PCD)	SETPCD	RPE Items
Set PIF	SETPIF	PDF Interactive Features
New Record Criteria Definition (RCD)	SETRCD	RPE Items
Set Output Resolution	SETRES	Output Device Control
New RPE Prefix Definition	SETRPEPREFIX	RPE Items
Set Widow/Orphan Control	SETSKIP	Page Layout
Set Tab Spacing	SETTAB	Page Layout
Set Tab Spacing	SETTABS	Page Layout
Set Text Bkgrd Attribute	SETTXB	Fonts, colors, and variables
Set Text Color	SETTXC	Fonts, colors, and variables
Set Sub/SuperScript	SETTXS	Fonts, colors, and variables
Set Units	SETUNIT	Page Layout
Set Variable	SETVAR	Fonts, colors, and variables
Set Zebra Lines	SETZEBRA	Page Layout
Shift Page Origin	SHIFT	Page Layout
Insert Text	SHL, SHX,SHMF, SHP, SHT	Page Marking
Insert Text on Path	SHPATH	Page Marking
Insert Distorted Text	SHPIT	Page Marking
Insert Table Row	SHROW	Page Marking
Skip Printing Current Page	SKIPPAGE	Page Control
Start a Booklet	STARTBOOKLET	Output Device Control
Start DataBaseMode Processing	STARTDBM	Print File Processing
Start LineMode Processing	STARTLM	Print File Processing
Mark Start of Set	STARTOFSET	Output Device Control
Start XML Mode Processing	STARTXML	Print File Processing
Store Variable	STOREVAR	Fonts, colors, and

PAGE	COMMAND	VDP MENU OPTIONS
		variables
Set TIFF Orientation Option	TIFORI_on, TIFORI_off	Page Marking
Draw USPS 4-State Barcode	USPS4	Page Marking
Set Text Color	UV2L	Fonts, colors, and variables
Insert ZSORT Command	ZSORT	Print File Processing