XDPE/400 V2.1.4
Technical Bulletin

March 23,2004

THE DOCUMENT COMPANY
XEROX®

Xerox welcomes your suggestions and feedback on this document.

©2004 by XEROX CORPORATION. All rights reserved.

Copyright protection claimed includes all forms and matters of copyrightable material and information now allowed by statutory or judicial law or hereinafter granted, including without limitation, material generated from the software programs that are displayed on the screen, such as icons, screen displays, looks, etc.

Produced in the United States of America.

XEROX®, The Document Company®, the digital X®, and the identifying product names and numbers herein are trademarks of

XEROX CORPORATION.

All non-Xerox brands and product names are trademarks or registered trademarks of their respective companies.

Companies, names, and data used in examples herein are fictitious unless otherwise noted.

Changes are periodically made to this document. Changes, technical inaccuracies, and typographic errors will be corrected in subsequent editions.

This document was created using Microsoft Word 2000.

XDPE/400 Technical Bulletin

This technical bulletin documents the procedure used to change the default font, orientation and spacing on the XDPE generated banner separator for PCL data streams.

This solution consists of two parts, first, customization of the XDPE banner page template with insertion of PCL commands, and secondly, modification of the work station customization object called from the Monitor queue to assign the PCL ESC character to a printable character, allowing the user to send PCL command strings along with the banner data.

Users should take note that the printer control commands placed in the banner separator will have an effect on how the variable data prints as well. It should also be noted that for the variable print data, any commands inserted in the banner separator page are easily overridden by the use of a PCL packet.

Modifying the XDPE banner page template

1. Create a new banner source member by copying the distributed banner source from library XDPE214, file SAMPLE, member BANXDPEN, giving the copied member a unique name, for example BANRCUST, or backup your currently customized XDPE banner source member before making additional modifications.

2. Create a folder on the AS/400, called for example XDPEBANR, to store source member BANRCUST in PC format using OS/400 command:

   CRTFLR FLR(XDPEBANR) TEXT('XDPE banner source')

3. Move member BANRCUST to the newly created PC DOC folder XDPEBANR using OS/400 command:

   CPYTOPCD FROMFILE(XDPE214/SAMPLE) TOFLR(XDPEBANR) FROMMBR(BANRCUST) TODOC(BANRCUST)

4. Use a PC text editor such as UltraEdit to insert the desired PCL commands into the banner page template. If using Client access or other similar product to access the AS/400 folder XDPEBANR and document BANRCUST from the PC, then skip to step 5 now, otherwise, FTP may also be used to move the PC doc member BANRCUST to the PC for editing. When using FTP, ensure a receiving directory exists on the PC, such as xdpe/bannersrc to store member BANRCUST. The series of FTP commands entered from a DOS command prompt on the PC are:

   a) FTP 999.999.9.999 (IP address of AS/400 where folder XDPEBANR exists)
   b) User (enter a valid OS/400 user id)
   c) Password (enter the valid OS/400 password)
   d) ftp > bin (set representation type to binary image)
   e) ftp > get /qdls/xdpebanr/banrcust /xdpe/bannersrc/banrcust

5. It is up to the user to determine which PCL commands they want to insert to modify the banner page appearance. For example purposes in this document the Font Style, Font Stroke Weight, Orientation, Vertical Motion Index (VMI) and Horizontal Motion Index commands will be inserted. Since the PCL ASCII escape character X'1B' is an unprintable character, an alternate printable character will need to be used in its place. Select a character that will not be found in the banner or variable print data. A common

choice is the EBCDIC logical not sign ('¬') character (X'AA'). The commands to be inserted for this example are as follows:

a) Style - Italic	command: esc(s1S	X'AA28733153'
b) Stroke Weight - Bold	command: esc(s3B	X'AA28733342'
c) Orientation -Landscape	command: esc&l1O	X'AA266C314F'
d) Vertical Motion Index (VMI) -8	command: esc&l6C	X'AA266C3643'
e) Horizontal Motion Index (HMI) -12	command: esc&k12H	X'AA266B313248'

Beginning at the first position of member BANRCUST insert the following string of 26 ASCII hex codes:

AA28733153AA28733342AA266C314FAA266C2643AA266B313248

Save the changes and exit out of the text editor.

6. If using Client access or other similar product to access the AS/400 folder XDPEBANR and document BANRCUST from the PC, then skip to step 7 now, otherwise, FTP may again be used to move BANRCUST back to folder XDPEBANR on the AS/400. The series of FTP commands entered from a DOS command prompt on the PC are:

   a) FTP 999.999.9.999 (IP address of AS/400 where folder XDPEBANR exists)
   b) User (enter a valid OS/400 user id)
   c) Password (enter the valid OS/400 password)
   d) ftp > bin (set representation type to binary image)
   e) ftp > put /xdpe/bannersrc/banrcust /qdls/xdpebanr/banrcust

7. Backup the current member BANNER in physical file XDPEBANNER in library XDPE214 by renaming it, for example BANNERO.

8. Copy member BANRCUST to physical file XDPEBANNER in library XDPE214 using OS/400 command:

   CPYFRMPCD FROMFLR(XDPEBANR) TOFILE(XDPE214/XDPEBANNER) FROMDOC(BANRCUST) TOMBR(BANNER)

Modifying the XDPE work station customization object to Translate the EBCDIC Logical Not Sign ('¬') Character to Represent an ASCII Escape Control Character (X'1B')

9. If the monitor queue parameter 'workstation customizing object (WSCST)' is set to *XDPEDFT, then view the table on page 18-19 of the XDPE/400 manual *Printing Documents with XDPE/400* (9/2001) to determine which work station customization object to modify based on the printer model specified in the monitor queue parameter 'printer model (MODEL)', otherwise if the monitor queue parameter 'workstation customizing object (WSCST)' is specified with a user-created workstation customizing object, then back-up that source before making additional modifications to it. The default workstation customization object source members reside in library XDPE214 file SAMPLE. For example purposes in this document, source member XWSCSTN32 will be modified.

10. Create a copy of source member XWSCSTN32 giving it a unique name such as XWSCSTBANR.

11. A Logical Not Sign ('¬') character is code point X'5F' in EBCDIC Code Page 37. So, to translate a Logical Not Sign ('¬') character to an ASCII Escape control character (X'1B'), the X'5F' position in the table must be changed

from its normal setting of X'AA' (a Logical Not Sign character in ASCII Code Page 437) to X'1B'. The X'5F' position has been changed so the correct translation will occur by using the following EBCASCTBL (EBCDIC to ASCII Mapping Table) and EBCASCTBLE (EBCDIC to ASCII Mapping Table Entry) tags.

Type (or cut and paste) the following after the :EASCCPINFO tag and before the :EWSCST tag, which is the last tag in the WSCST source member.

```
 :EBCASCTBL.
 :EBCASCTBLE
   EBCDICCP = 37
   ASCIICP  = 437
   DATA =
        /* -0-1-2-3-4-5-6-7-8-9-A-B-C-D-E-F */
       '2020838485A0A68687A49B2E3C282B7C'X       /* 4- */
       '268288898AA18C8B8DE121242A293B1B'X       /* 5- */
       '2D2F838E85A0A68F80A57C2C255F3E3F'X       /* 6- */
       '6F9088898AA18C8B8D603A2340273D22'X       /* 7- */
       'ED6162636465666768 69AEAF647900F1'X      /* 8- */
       'F86A6B6C6D6E6F707172A6A791009200'X       /* 9- */
       'E67E737475767778797AADA844590000'X       /* A- */
       '5E9C9DFA001514ACAB005B5D00DB27DD'X       /* B- */
       '7B41424344454647484900939495A2A7'X       /* C- */
       '7D4A4B4C4D4E4F50515200968197A398'X       /* D- */
       '5CF6535455565758595AFD939995A2DC'X       /* E- */
       '3031323334353637383900969A97A300'X.      /* F- */
:EEBCASCTBL.
```

Note: Examples of the various Code Pages, including EBCDIC Code Page 37 (USA/Canada - CECP) and ASCII Code Page 437 (Personal Computer), can be found in Adobe Acrobat PDF format on the IBM Code Pages web page at the following URL:

http://www.ibm.com/servers/eserver/iseries/software/globalization/codepages.html

12. Compile the user created workstation customization object using the OS/400 command:

    CRTWSCST WSCST(XDPE214/XWSCSTBANR) SRCMBR(XWSCSTBANR) TEXT('Translate escape character') SRCFILE(XDPE214/SAMPLE)

    Verify message 'Customization object XWSCSTBANR created successfully' is received before moving to the next step.

13. Re-start the Monitor queue specifying parameter 'workstation customizing object (WSCST) with user-created object XWSCSTBANR, and library XDPE214.