

Programming Announcement



Information Systems Group
National Accounts Division
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IBM Host-Displaywriter Document Interchange PRPQ is announced

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The Host-Displaywriter Document Interchange PRPQ supports the transfer of documents between Displaywriters and host systems running VM/CMS. It also provides a limited capability to convert documents from Displaywriter revisable format to Document Composition Facility (DCF) controls and from DCF to Displaywriter format. The limitations on the documents that may be converted are given below. With this product a PROFS user can work in conjunction with a Displaywriter user and also take advantage of the power of PROFS to view, edit, store, retrieve, mail, and print a document.

Highlights

- Allows the use of the Host-Displaywriter Document Interchange PRPQ by PROFS and other VM/CMS users
- Support for document transfer both to and from Displaywriter and VM/CMS
- Capability to convert documents both to and from a limited set of Displaywriter revisable format and DCF controls
- Full-screen menu interface
- Optional parameter-EXEC interface for use by systems programmers
- Operates with Displaywriter-3277 Device Emulation RPQ/PRPQ and its newly announced document transfer facility
- Capability to switch from 3277-Device Emulation mode to Displaywriter mode during document transfer

Delivery: Customer delivery schedules will be provided within 90 days.

Description: The Host-Displaywriter Document Interchange PRPQ, when used with Displaywriter-3277 Device Emulation RPQ/PRPQ and its newly announced document transfer facility, allows documents to be sent to and from Displaywriters and host systems and to be

converted to and from Displaywriter revisable format and DCF controls.

PROFS currently provides its users the ability to interchange documents. With the Host-Displaywriter Document Interchange PRPQ and PROFS, a range of additional opportunities is opened to Displaywriter and host users:

Displaywriter - Displaywriter

The PROFS host data base may be used as an archive for Displaywriter documents kept in Displaywriter format, reducing the need for offline diskette storage. Documents may be created using the full word-processing power of Displaywriter and distributed through the VM network to other similarly attached Displaywriters where they may be viewed, edited, and printed with no loss of integrity.

Displaywriter - 327X

Documents may be created on a Displaywriter using a subset of Displaywriter functions, transferred to the host, converted to DCF controls, and mailed through PROFS to other PROFS users where they may be viewed, stored for retrieval, forwarded, printed at the host or, if desired, further revised.

As an alternative, documents may be created on Displaywriter using a combination of DCF, GML, and the subset of Displaywriter controls. These documents could be transferred to the host and converted with the Displaywriter controls resolved to DCF while the GML tags and DCF controls remain intact. These documents could then be formatted by DCF, viewed, stored in PROFS, mailed, and printed at the host.

327X - Displaywriter

Documents may be created on a 327X using a subset of DCF controls, converted to Displaywriter format, and transferred to the Displaywriter diskette from which they

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may be viewed, stored, printed, or if desired, further revised.

Alternately, documents may be created at the host using full function DCF, including GML, and transferred to the Displaywriter diskette. A secretary who knows DCF can continue the editing process with the rapid response characteristic of Displaywriter. This use can improve productivity significantly at installations where host terminals are remotely attached. In this environment, no conversion of DCF controls takes place. They are carried through to the Displaywriter and are available within the text of the transferred document.

Documents may be created on either the host (in DCF form) or on Displaywriter without reference to the limitations of the conversion programs, transferred and converted to the other medium, and then revised to repair the parts of the documents that contained controls that the conversion did not support.

PROFS environment: The Host-Displaywriter Document Interchange PRPQ can be invoked from the PROFS main menu, as described (for any program) in the PROFS documentation. The PROFS "file soft copy" function can be used to file documents that have been transferred from Displaywriter to the host. Converting these documents to DCF controls is optional; either the Displaywriter or DCF form can be filed in and retrieved from the PROFS data base. Following retrieval from the PROFS data base, these documents can be converted (as necessary) to Displaywriter format and transferred to a Displaywriter.

As indicated above, a document could be "roughed out" by a principal on a 327X terminal, passed to a secretary where it would be "cleaned up" using Displaywriter, and then returned to the principal for final review or for subsequent editing. At any point in the cycle, either the principal or the secretary can electronically mail the document or print it for external mailing.

Because GML macros and DCF controls are not expanded at the Displaywriter, special procedures should be developed by the user in order to use PROFS to create initial draft documents which will be sent to the Displaywriter for revision. A special document format should be created which eliminates most of the header profile tags and DCF controls normally used by the PROFS memo prompter. The remaining DCF controls could then be removed at the Displaywriter when the document is finalized.

VM/CMS environment: The Host-Displaywriter Document Interchange PRPQ will also operate in a VM/CMS environment without PROFS. Document transfer occurs to and from Displaywriter and the user's personal storage at the host. The conversion routines allow the user to change documents between Displaywriter format and DCF controls within the limits described below. If the documents are converted, they may be revised using XEDIT or any VM/CMS-based editor. Printing documents at the host or sending them to other users can be accomplished with the normal CMS commands.

Supported Displaywriter and DCF controls: Displaywriter and DCF both represent revisable forms of documents. Their approaches are fundamentally different because their environments and intended uses are very different. As a result, the two forms of revisable documents express common concepts in different ways and each also has concepts that the other cannot express at all. Therefore, conversion between these two forms of revisable

documents is neither simple nor direct and places certain limitations upon the documents that are to be converted.

Unsupported Displaywriter controls: For planning purposes, the following is a list of Displaywriter Textpack 4 controls and functions not handled when a Displaywriter document is converted to DCF controls:

- Margins and other page layout information that applies to a Displaywriter printer but does not necessarily apply to a host system printer (master formats can be saved and passed back to Displaywriter, if desired).
- Subscripts and superscripts (saved so they can be passed back to the Displaywriter, if desired).
- Begin and end overstrike.
- Index key.
- Begin and end keep.
- Decimal, center, and right tab alignment (normal left tab alignment is supported).
- Field centering (line centering is supported).
- System-assigned page naming (page numbering is supported).
- Print medium (forms, source drawer is saved so it can be passed back to the Displaywriter, if desired).
- Font changes within document.
- Keyboard changes within document.
- Half justify.
- Spell check attributes.
- Include text unit.
- Statistics and math package features.
 - Insert
 - Computation and group computation
- Report generator features.
 - Report layout
- Column layouts and column headings.

Some of these can be approximated by editing with DCF. Some represent functions not applicable or possible with DCF. Any new Textpack 6 controls and functions not contained in Textpack 4 are not supported. When unsupported Displaywriter controls are used in a document, it will be necessary to repair the document after conversion.

Supported DCF controls: The following DCF controls will be transformed to appropriate Displaywriter controls:

Page End

.pa	Put following text on next page.
.pa nostart	Same, allows margin text before text.

Format Control

.fo off	Leave text lines as they are typed in.
.fo left	Adjust (fill each line).
.ju on	Justify text (straight right margin).
.fo on	Adjust and justify (the default).

Tabs

.tb a b c ...	Set tabs at character positions a b c ...
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Break

.br	Put following text on a new line.
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Paragraph

`.pp` Leave blank line before following text.

Spacing Control

`.sp n` Leave n blank lines next.
`.sk n` Same, unless at top of page.

Indent

`.in n` Start a new line; indent n spaces.
`.in n nobreak` Indent n spaces; continue the present line.

Top and Bottom Margin Text

`.rh on` Start definition of header (top margin text).
`.rh even` Same, but for even numbered pages only.
`.rh odd` Same, but for odd numbered pages only.
`.rh off` End definition of header (top margin text).
`.rh cancel` Cancel header for following pages.
`.rf on`
`.rf even`
`.rf odd` Same as above, but for bottom margin text.
`.rf off`
`.rf cancel`

Spacing Control

`.ss` Single space the following text.
`.ds` Double space the following text.

Underscore

`.us on` Underscore the following text lines.
`.us off` End underscoring of lines.

Center

`.ce The Title` Center the following text "The Title".

Hyphenate

`.hw w-or-d` Indicate where word may be hyphenated.

Printer Paper Source Drawer

`.cm printing paper source top`
`.cm printing paper source bottom`
`.cm printing paper source bottom, this page only`
`.cm printing paper source manual feed`

All other controls not converted can, at the user's option, be passed to Displaywriter as text. Such controls are for use by a Displaywriter operator who knows DCF and who can ignore them or continue formatting the document using Displaywriter keystrokes to replace DCF controls.

Specified operating environment: Support will be provided for this licensed program when it is operated in the following operating environment:

Hardware requirements: Host-Displaywriter Document Interchange PRPQ is designed to operate on any currently supported VM/CMS IBM System/370, 4300, or 3000 series processors with a minimum main storage size of one megabyte. A DASD device which is supported by

VM/CMS is also required. One nine-track tape drive and one 24-line display terminal is required to install the Host-Displaywriter Document Interchange PRPQ.

Device support under Host-Displaywriter Document Interchange is provided through the VM/CMS licensed program.

The Displaywriter memory requirements for Displaywriter- 3277 DE/DT are as follows:

Textpack 4 - 320K bytes
Textpack 6 - 384K bytes

Note: For non-concurrent operation, current Textpack 4 or Textpack 6 memory requirements apply.

A 3271 or 3272 Control Unit or 3274 Control Unit with the Type B Terminal Adapter is required.

Software requirements: Host-Displaywriter Document Interchange PRPQ is written in PL/I, IBM/370 Assembler language, VM/CMS EXEC2, and system editor (XEDIT) Command Language. The Host-Displaywriter Document Interchange PRPQ is designed to operate in a VM/CMS environment and is dependent on the following licensed programs which must be ordered separately:

- VM/System Product (5664-167) Release 1 or later
- Document Composition Facility (5748-XX9) Release 2 with the CMS Foreground Environment feature (6076)
- PL/I Transient Library (5734-LM5)

The Host-Displaywriter Document Interchange PRPQ operates with the 3277 Device Emulation RPO/PRPQ and its newly announced document transfer facility.

Planning information

Customer education: The Dallas Advanced Education Center will include a module on PROFS/Displaywriter document interchange in the following courses:

"PROFS Implementation for the System Administrator" (B3801), a four-day course for customer administrator personnel covering installation and administration of a PROFS system.

"PROFS Systems Programmer-Implementation" (B3802), a five-day course for customer systems programmers covering installation, problem determination, and PROFS enhancement topics.

Customer responsibility: Installation of a licensed program is the customer's responsibility.

Security, auditability, and control: The Host-Displaywriter Document Interchange PRPQ utilizes the security and auditability features of VM/CMS. User management is responsible for the selection, application, adequacy, and implementation of all security features and for appropriate application and administrative controls.

Performance considerations: Performance considerations for Host-Displaywriter Document Interchange PRPQ are much the same as for most other products. The quantity of work being performed and the amount of function required to do the work will significantly affect the performance. The conversion portion of the PRPQ operates with the documents separately from the transfer portion and in some cases can be scheduled in times which will have little or no performance effect on the Displaywriter user.