TO: Distribution

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SUBJECT: Compose Output File Postprocessor (process_compout)

This MTB proposes and discusses a free standing postprocessor for transcribing "compout" files onto the desired output device/medium.

It has long been the practice of the various documentation groups to compose a document to an output file and then "pull" the final repro masters using either the installed print command or other private tools. However, latter day output devices require special codes (eg, device control sequences to diablo terminals, and "bell" codes and TTS character set for phototypesetters) and it is no longer feasible to rely on private tools for such operations.

Therefore, "compout" files for devices other than ASCII terminals and lineprinters are unkeyed sequential files (unacceptable to print and dprint) instead of unformatted (stream) files and it is appropriate for us to provide a standard user tool to transcribe these files onto the output medium for the device. The change in output file was selected as the mechanism to avoid upset and frustration by users who would otherwise order a dprint of an unsuitable file (say, of a 500 page book!) only to find it unreadable because of the embedded device control codes or gibberish because of the TTS character set.

Since this tool must perform the same functions (at least insofar as output is concerned) as compose itself when compose is invoked interactively, its arguments and control arguments are designed to be as close as possible to the analogous arguments and control arguments of compose.

When compose creates a "compout" file for a device, all the information necessary (ie, the information it would use itself) for the correct transcription of the file onto the output medium is included in the header record of the file.

The features of the command are described in the attached draft user documentation.

NAME:

process_compout, pco

The process_compout command is used to process one or more compose output (compout) files to an on-line device, or to a magnetic or punched paper tape. All or portions of the files may be requested.

USAGE

process_compout paths {-control_args}

where:

1 paths

are the pathnames of input files to be processed. The suffix "compout" must be the last component of the input file entrynames (but, see -pathname control argument); however, the suffix need not be supplied in the command line. Output is produced in the order in which the pathnames are given in the command line.

2 control_args

may be chosen from the following list. Any control argument specified in the command line applies to all input file pathnames given.

-block n

overrides the internal blocking factor when writing output to magnetic or paper tape. This changes the maximum number of pages which will be written to a file on the output medium.

-control_file path
-cf path

specifies a control file that contains a list of the input pathnames with certain associated control arguments to be processed. See Notes for a description of this file.

-from n
-fm n

starts printed output at page n. This control argument is mutually exclusive with the -pages control argument. The default value of n is !1. See Notes for a discussion of page numbers.

-mode x

selects any of the known alternative modes of output or can specify an entirely new mode. If "x" is a single word, then the control information in the header record of the input file is searched for a mode that begins with "x". For example, if a file for the Merganthaler V-I-P contains mode specifications for both tape_ibm_ and punch, then requesting "-mode pun" would select the punch mode as specified.

If "x" is a quoted string containing white space, then "x" will be used as an attach description for the output medium irrespective of any modes specified in the file header recored.

An information mode, "comment", is available for all files. This mode produces a listing of the comment information in the header of a compout. This comment contains things like the wheel indentification information on, say dtc300s, or the attach description on, say impvip.

A debugging mode, "dump", is available for all files. This mode produces an octal/ascii dump of the records of the input file. "dump" output is written to user_output instead of any output medium.

If this control argument is not given, the mode used is the first known mode found in the file header.

-pages n | n,n ...
-pgs n | n,n ...

specifies a blank separated list of selected pages to be printed. Each member of the list must be a single page, {n}, or a range of pages, {n,n}. The page numbers given must normally increase without duplication (however, see Note 2 below). At least one page must be specified. This control argument is mutually exclusive with the -from and -to control arguments. The default for this feature is OFF.

-pages_changed {p|s}
-pgc {p|s}

specifies that only addendum pages and those pages containing text within the range of a change-bar control are to be printed. If the argument is present it controls the selection of matching pages. If the value "s" is used (default), it means to select only the single pages. If the value "p" is used, it means to include any front/back

which would not otherwise be selected but is necesary for a complete leaf.

-pathname path
-pn path
> path is the pathname of an input file even though it may have the appearance of a numeric parameter or a control argument, or is a compose bulk output file that does not have the compout suffix.

-stop
-sp
> waits for a newline character (ASCII code 012) from the user before beginning each page of output. If only a newline is typed, the next page will be printed. If a "q" is typed, the command invocation will be terminated gracefully. If an "r" is typed, the page just printed will be reprinted. The default for this feature is OFF.

-table
-tb
> print a table listing information about all selected pages in the file. Only a table is produced. This control argument is mutually exclusive with all others. See Notes for further information.

-to n
> ends output after the page n. This control argument is mutually exclusive with the -pages control argument. The default value for n is "$". See Notes for a discussion of page numbers.

-volume xx
> writes the output to the magnetic tape whose volume name is xx. The parameters needed for attaching the tape were provided by the device description table and are contained in the header record of the compout file.

-wait
-wt
> waits for a newline character (ASCII code 012) before beginning the first page of output to the terminal, but not between pages (see the -stop control argument above). The default for this feature is OFF.

NOTES

1. The control arguments -from, -pages, -pages_changed, and -to (and their possible values) apply ONLY to input files given in the command line. See Note 3 below for a discussion of control files.

2. Pages may be refered to by several methods:
> !n $ +n $-n page-id

"!n" means the n'th physical page in the file. However, if n=0 this means "go back to the beginning of the file". No page is printed from the !0.

"$" means the last physical page in the file.

"+n" means the n'th relative (to the last page referenced) page in the file.

"$-n" means the n'th relative page from the end of the file.

"page-id" is the page number constructed by compose. It may be just a simple number or a compound number such as "B-1", "3-14.2", or "i-5". The page-id MUST be an an EXACT match for that in the document. There is no less than/greater than checking possible.

A page selection could be:
```
-pages !1, !5 +19, +2
127.4, 127.42 $-1, $
```
This means to process four ranges: the first five pages, then the three pages beginning with the 24th, then the 39 pages beginning with page number 127.4, then the last 2 pages of the file.

3. A control file is of a series of request statements of the form:
> starnames {-control_args};

These statements may span lines and multiple statements may be given on a line. The control arguments allowed (as described above) are:
> -from, -to, -pages,
> -page_changed, -pathname

As in the command invocation, all control arguments apply to all files within the same request statement. None of the allowed control arguments given in the command line apply to files specified in a control_file. A control file could look like this:

```
methods -from 3;
procedures
    -pages 1-3, 2-4 3-1, 3-$;
not*;
```

4. The -table option prints a table of information about selected pages in a file. This

information includes the physical page number and the actual page-id. Any "changed" pages will be marked with "#". Front pages are flagged with the word "FRONT".

The format of this table is such that it can be used as a control file, either directly or after editing to remove any unwanted data. For example:

```
pco flow_sheet -to !7 -table

-pathname flow_sheet -pages
!1 /* FRONT 1-5 */
!2 /* # 1-6 */
!3 /* # FRONT 1-6.1 */
!4 /* FRONT 1-7 */
!5 /* 1-8 */
!6 /* FRONT 2-1 */
!7 /* 2-2 */
:
```