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Version 6.0.VV.RR New USP Only Items
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- Task #565 READLINE using "-1" for length to force read to EOL

- Task #888 show=pkeep retain position if brw format changes
In a browse lookup with "show=pkeep", the browse was enhanced to allow the position to be retained, even if the browse format has changed.

- Task #1000 -fp *report flag would not report an error if the prc to use did not exist.

- Task #1227 A new function to lock or unlock nbyte bytes of the file specified by handle.

- Task #1303 ddefine will now create new screens the same as dscreen does instead of just mono.

- Task #1306 NEW arguments for OPENDIR
format length
extension length
fullname length

- Task #1340 *cabe lookup wizard will now honor PFQUAL and show qualified indexes

- Task #1359 Added new FPML commands to control the appearance of underlines.

- Task #1534 new RINSTR, and INSTR now allows negative positions for working backwards.

- Task #1421 New Giadmin that will count GUI (GI or Web) sessions, ease of system and user configuration files and additional security.

- Task #1504 Added PDF syntax as an option for printer maintenance (pmaint) Windows only

- Task #1564 Remote Licensing for Giserver and fileProWeb. Hardware tie-in no longer required with internet access

- Task #1574 Lookup Wizard in cabe now allows long vars as key

- Task #1583 Added alias and arrays to F6-D-L display in *cabe

- Task #1584 Added SHOWPROGRESS

- Task #1592 updated color with new routines and corrected the shell escape codes.

- Task #1613 New variables
CABEBACKUP ON|OFF (on by default)
CABEBACKUPMINS n (minutes between backups)
CABEBACKUPCT n (backup files per process)

- Task #1637 Menu maintenance (makemenu) now asks if you wish to remove an unused menu script if the menu item is not used.

- Task #1676 *report now allows one to use .outs from a pathed directory library

Task #1678 SCREEN command can switch fields in a POPUP UPDATE -, provided no screen name is passed to the SCREEN command.

Task #1447 MEMO EDIT now accept maxsize to limit the number of characters that can be entered into a memo field.
memo NNN edit (row,col,lines,width,startLine,startcol,maxSize)
(Text mode only)

Task #1601
@EXIT in processing

Task #1609 (All)
Added option 7 to dxmaint to clear qualifier

Task #1610 (All)
New -SE *report flag to allow report to edit/save a selection set.

Task #1601 (All)
Added @exit label to *clerk processing. This is executed whenever a record is exited or broken out of. Events that trigger this are 'X' while not in update mode, 'BRKY' while not in update mode, and 'exit' in processing. It is the opposite of @entsel, and is the last thing executed when leaving a record. Assignment of real fields is not allowed, this is similar to @once in that the processing that is executed is NOT sitting on a record, but rather record '0'.

Task #1606 (All)
Partial lookup flag added to *cabe lookup wizard.
-O on an exact lookup now does partial key matching. This kills a lookup once the beginning of the key value no longer matches the lookup key value.

Task #1546 (All)
BUSYBOX
BUSYBOX "my message"
BUSYBOX("10","10")
BUSYBOX("10","10") "my message"

Task #1723 Added PFPPFULLPATH as an enhancement to PDFPOSTPRINT and added an PFNEWPOSTPRINT alias to name to PDFPOSTPRINT
Added PFPPFULLPATH to augment the filename passed to the post print handler, default ON, this causes the filename passed to the postprint script to contain the full path to the file, not just the file name. Set to OFF to revert to old behaviour. PFPOSTPRINTnnn will now work with normal file destinations. Same rules as the old global PFPOSTPRINT but also supports PDF files.

Task #1579 Allow passing of parameters to CHAIN and CALL

```
call "testout" -cm "test m" -cw "test w" -cx "test x" -cy "test y" -cz "test z"  
  
    msgbox @CM  
    msgbox @CW  
    etc.
```

Also works with CHAIN

Task #1639 Added new conditions for searching used for associated fields only.

Task #1662 PDF printing should now honor the page length set in dmoedef

Task #1691 clerk will now allow a full path to a form when using the FORM and FORMM command in processing.

Task #1591 PFBROWSEFULL=ON
now allows a full screen display of browse records
First selected record will appear on the first row.
Page-Up will now display records on all rows.

Task #1160 PFKEYLOGGER=ON (off - default)
To activate key logger, set PFKEYLOGGER=ON
If it does not exist, <pfprog>/fp/keylogger/<username>.log
will be created.

Fields to be shown can be configured in
<pfprog>/fp/keylogger/config.txt
Key Logger Config File
SHOWTIMESTAMP=ON
SHOWFILENAME=ON
SHOWTTY=ON
SHOWAPP=ON

The tty field is not available on Windows.

New configuration variable. PFKEYLOGGERMB=n

Where n is the number of megabytes allowed before the file is
backed up.

Older backups are overwritten

Task #1757 User defined functions - Forward declare functions to be used:

```
(function|func) [file.]name([dim|var] var1, [dim|var] var2, ...)
```

e.g.

```
function fplib.showlock(var pid)  
function fplib.log(file, line, what)  
function somefunc(dim myarray)
```

Call a function:

```
[x]=[file.]name(var1, var2, ...)
```

Return a value from a function:

```
return(value)
```

Can pass fields: real, dummy, longvar

Can pass arrays: Alias and system arrays are copied to a non-aliased
array. Non-aliased arrays are passed by reference.

Function names must be at least 3 characters in length.

Functions cannot modify values outside of its scope.

Functions do not call automatic processing.

Functions cannot modify real fields.

Functions cannot be called unless they are declared.

Functions can pass values by reference (changes made to the value will
carry back out of the function, only to arrays).

Functions can optionally return a value.

Parameter names must be at least 3 characters in length.

Parameters will be passed to the function using the name they were defined
with in the declaration statement.

Environment variables:

 PFFUNCDBG=(ON|OFF), default OFF.

 If ON the debugger will be allowed to continue into the function call. If OFF the debugger will skip over user defined functions.
 NOTE: Debug statements inside of functions will still be able to be activated. If debug is set inside of a function, it will continue even after the function is left.

Example:

Processing table for fibonacci:

```
If:                ' Declare for future use
Then: function fibonacci(nval)
If:                ' Get the parameter
Then: declare extern nval
If: nval le "1"    ' Return the result
Then: return(nval)
If:                ' Return the result
Then: return(fibonacci(nval-"1")+fibonacci(nval-"2"))
```

Usage:

```
If:                ' Declare for future use
Then: function fibonacci(nval)
If:                ' Call the function
Then: n=fibonacci("9")
If:                ' Display the result
Then: msgbox ""{n    ' Prints "34"
```

Task #1555 Maximum field length was changed from 16 bit to 32 bit. This allowed an increase in the size of sys arrays

Task #1756 EXTERN and GLOBAL arrays

```
DIM GLOBAL name(size)
DIM EXTERN name
```

 Only non-aliased arrays can be declared GLOBAL/EXTERN.
 Functions similar to GLOBAL/EXTERN longvars.

Task #1639 New compare condition for Associated Fields

Added new selection set relational operators:

```
AEQ - Associated field, all equal
ANE - Associated field, all not equal
ACO - Associated field, all contain
```

These require ALL components of an associated field to match the comparison being done, rather than just one of its component fields.

Task #1667 Extended and Short selection will now check edits when leaving the field, provided that the relationship code is not CO. If the code is CO, the field will be treated as NOEDIT instead of its defined type.

Task #1721 Print spool initialization move beyond a large chunk of processing which should remedy most if not all problems with the spool timeout.

Task #1733 NEW XLSX Mark-up language for creating XLSX files.

(see ~\fp\docs\xlsxdocs.pdf or on our website)

<https://www.fptech.com/fptech/pdf/xlsxdoc.pdf>

Task #1749 Rebuild All Indexes on a file. item '8' on the dialog. Note: this is in the "extended" dialog which shows when a filename is not specified

from the command line. Indexes can be selected individually,
or all (with F7). Press SAVE, and rebuild begins

Task #1751 Ability to EXPLODE or SPLIT inport data

Usage:

sz=SPLIT(array, string, delimiter)

array is the array that the data will be placed into

string is the data to split

delimiter is the sequence of characters to split on

NOTE: The array being used must have the size defined for its elements and cannot be an alias.

Task #1754 Added the ability to show record locks from *clerk. Can also be used to terminate sessions directly. New option !L added to *clerk. Using !L will activate the new locked records list. Enter on a selected entry will give additional options to the user, including the ability to Kill or Terminate a locked process without having to go to the command line. Note: This option is only available on Unix/Linux/BSD

Task #1761 Added UID mapping to filePro, ddir/dprodir option F5.

This allows for UIDs (User IDs) to be aliased to specific usernames. In the event that a login account is removed from your system, this can be used to maintain the link between the removed login's UID and those stored in filePro, effectively allowing system variables such as @CB and @UB to be maintained.

Windows Only:

This also has the added benefit of allowing @CB and @UB to function on Windows by linking a "pseudo" UID to a given username. These UIDs are automatically generated but can also be manually added. When a user opens filePro and their username does not exist in the UID map file, a UID will be generated for that user. filePro will find the next available UID in the list, starting from 2000, and assign it to that username.

unique On all platforms, UIDs stored in this program must be
and in the range 0-65535. Usernames can be duplicated on
Unix and Linux platforms, but must be unique on Windows.
and Usernames are case-sensitive on Unix and Linux platforms
are case-insensitive on Windows platforms.

Environmental Variables:

PFUIDMAP = /path

Alternate filePro UID map file. (Use full path)

Note: Must be set in the environment.

PFUSEUIDMAP = ON

maximum Allows filePro to do UID mapping. Also expands the

username length returned by @CB, @UB, and @ID to 32.

Default: ON

Task #1762 All functions that take a position default to the first character in a field if not specified.

All "is" functions return "1" for true and "0" for false.

x=isalpha(fld [, pos])

Is the character at the position given a letter?

x=isdigit(fld [, pos])

Is the character at the position given a number?

x=isalnum(fld [, pos])

Is the character at the position given a letter or number?

x=isspace(fld [, pos])

Is the character at the position given a whitespace

character?

' ', '\t', '\n', '\r', '\v', '\f'

x=islower(fld [, pos])

Is the character at the position given lowercase?

x=isupper(fld [, pos])

Is the character at the position given uppercase?

x=isxdigit(fld [, pos])

Is the character at the position given a hexadecimal

character?

'0'-'9', 'A'-'F'

x=iscntrl(fld [, pos])

Is the character at the position given a control character?
ASCII codes 0x00 (nul) - 0x1f (US), and 0x7f (del)

x=isprint(fld [, pos])

Is the character at the position given a printable

character?

ASCII codes greater than 0x1f (US) not including 0x7f (del)

x=ispunct(fld [, pos])

Is the character at the position given a punctuation

character?

x=isgraph(fld [, pos])

Is the character at the position given a character with a graphical representation? The characters with graphical representation are all those characters than can be printed (as determined by isprint) except for space.

x=tolower(fld [, pos])

Return the character at the position given as a lowercase character.

x=toupper(fld [, pos])

Return the character at the position given as an uppercase character.

str=strtolower(fld)

Return the entire string converted to lowercase.

```
str=strtoupper(fld)
```

Return the entire string converted to uppercase.

Task #1767 Corrected a bug caused by #1691. FORM/FORMM should now correctly produce output when not fully pathing to an output format.

Task #1773 Added new array size function to get the size of an array. Can be used with GLOBAL, EXTERN, LOCAL, and SYSTEM arrays.

```
x=ARRAYSIZE(array)
```

Where array is the name of the array.

Where x is the returned size of the passed array.

Task #1774 Added new DECLARED function to check if an array or longvar is defined, meaning it is either declared LOCAL or GLOBAL or is declared EXTERN but has a matching GLOBAL definition.

```
x=DECLARED(var)
```

Where var is either a longvar or an array.

Where x is the return value.

Returns 0 if the variable is not fully defined.

Returns 1 if the variable is fully defined.

Task #1784 Increased ACTION length in debugger from 60 characters to full 128. Should now be the same as *cabe.

Task #1818 Corrected an issue where a duplicate field warning could display while defining a lookup. Warning is now suppressed until saving the processing table.

Task #1829 Added new flag -DM to [dr]clerk to disable the Index Mode prompt from @ENTSEL. Only works when not in update mode.

Task #1835 Added flag -RH to report to disable the automatic record number reporting in the middle of the screen. This enables placing text on the center of the screen without it being overwritten when the display updates.

Task #1836

```
x=@GUI.PAUSE()
```

Pauses automatic screen updating while in GI/Web.

```
x=@GUI.RESUME()
```

Resumes automatic screen updating while in GI/Web.