

VPLUS/3000

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Contents

- Forms File
- Form Design
- Form Sequencing
- Processing Specifications
- Function Keys
- Intrinsic

VPLUS Programs

- FORMSPEC.PUB.SYS – Forms Maintenance
- ENTRY.PUB.SYS – Data Entry
- REFSPEC.PUB.SYS – Reformat Maintenance
- REFORMAT.PUB.SYS – Reformats Data

Forms File

- Main Menu
- Globals Menu
- Save Fields Menus
- Form Menus
 - Form Layout
 - Field Menus
- Must be compiled before execution by application and can be “fast” forms file

Form Design

- Use [and] or Esc [and Esc] for field definition
- Enter case sensitive field tags with “.” to fill out field
- Place display only prompts on fields
- Use space and graphics to make the form more user friendly

Enhancements

- H – Half Bright
- I – Inverse Video
- U – Underline
- B – Blinking
- S – Security
- 1-8 – Color
- NONE - None

Field Types

- O – Optional
- R – Required
- D – Display Only
- P - Process

Data Types

- CHAR – Character
- DIG – Digits
- NUM[n] – Numeric with n decimal places
- IMP[n] – Implied Decimal Numeric with n decimal places

Date Types

- MDY
- DMY
- YMD

Form Sequencing

- Repeat Option
 - N No Repeat
 - A Repeat, appending
 - R Repeat, overlaying
- Next Form
 - C Clear before Next Form
 - A Append Next Form
 - F Freeze, then append Next Form

Form Families

- Parent – Standard Form
- Child – Reproduced from Parent but with different options, attributes, or processing specifications

Processing Specifications

- Multiple statements separated by blank or “.”
;
- Comments preceded by a “\”
- Lines continued with an “&”
- Custom or standard error messages
- System Constants - \$EMPTY, \$LENGTH, \$STATE, \$TODAY

Processing Specifications cont.

- Character constants enclosed in “” or “”
- Numerics are digits with optional signs and optional decimal points
- Dates are any legal date format in MDY order
- Arithmetic operators are: + - * ? %
- Index Retrieve: (n of x,y,z)

Edit Statements

MINLEN value ["msg"]

MATCH pattern ["msg"]

CDIGIT {10

11} ["msg"]

{GT, LT, GE, LE, EQ, NE} value ["msg"]

{IN

NIN} {value[,value]

lowvalue:highvalue[,lowvalue:highvalue]...

value[,lowvalue:highvalue]...} ["msg"]

Formatting Statements

STRIP {TRAILING
LEADING
ALL } “character”

FILL {LEADING
TRAILING } “character”

JUSTIFY {LEFT
RIGHT
CENTER}

UPSHIFT

SET Statements

```
SET { TO {value
        index OF value[,value]...}
     {field
     save field} [TO {value
                    index OF value[,value...]}]}
```


CHANGE Statements

```
CHANGE { CFORM TO {NOREPEAT  
          REPEAT  
          REPEAT APPEND}  
        NFORM TO {[CLEAR  
                  APPEND  
                  FREEZE APPEND] ["formname"  
                                   fieldname  
                                   index OF value[,value]...  
                                   $RETURN  
                                   $HEAD  
                                   $END  
                                   $REFRESH]}}
```

Conditional Statements

```
IF [value] editstatement THEN  
  [statement]...[statement]  
[ELSE [statement]...[statement]
```

Control Statements

- FAIL [“msg”]
- STOP

Function Keys

- Used to navigate in FORMSPEC, REFSPEC, and ENTRY
- Can be used in application programs
 - Can be defined globally and/or locally
 - Can be modified “on the fly”

Additional Topics

- Application Ready Buffer (ARB)
- Entry Program
- Reformat
- Batch

Intrinsics

- Access to Terminal
- Access to Forms Definition
- Data Processing
- Data Entry
- Programmatic Access to Data
- Errors, Function Keys, NLS

Access to Terminal

- VOPENTERM
- VCLOSETERM
- VSHOWFORM
- VPLACECURSOR
- VREADFIELDS
- VLOADFORMS
- VUNLOADFORM

Access to Forms Definition

- VOPENFORMF
- VGETFIELDINFO
- VGETFORMINFO
- VPRINTFORM
- VCLOSEFORMF
- VGETFIELDINFO
- VGETNEXTFORM
- VCHANGEFIELD

Data Processing

- VINITFORM

- VFINISHFORM

- VFIELDDEDITS

Data Entry

- VCLOSEBATCH
- VPOSTBATCH
- VWRITEBATCH

- VOPENBATCH
- VREADBATCH

Programmatic Access to Data

- VGETBUFFER
- VPUTBUFFER
- VGETtype
- VGETFIELD
- VPUTFIELD
- VPUTtype

Errors, Function Keys, NLS

- VERRMSG
- VGETKEYLABELS
- VSETKEYLABEL
- VGETLANG
- VSETERROR
- VPUTWINDOW
- VSETKEYLABEL
- VSETLANG

VOPENTERM

- Opens a VPLUS supported Terminal.
- VOPENTERM {comarea, termfile}

VCLOSETERM

- Closes an open terminal file.
- VCLOSETERM {comarea}

VSHOWFORM

- Displays on the terminal screen the current form, any data in the data buffer, any labels from the key label buffer, and any messages from the window buffer.
- VSHOWFORM {comarea}

VPLACECURSOR

- Allows an application to position the cursor to any input field at run time.
- VPLACECURSOR {comarea, fieldnum}

VREADFIELDS

- Accepts all user input from an open terminal, including data entered entered by pressing ENTER, or user requests made by pressing a function key.
- VREADFIELDS {comarea}

VLOADFORMS

- Loads specified forms into local form storage memory.
- VLOADFORMS {comarea, numofforms, formsloaded, forms}

VUNLOADFORM

- Unloads the specified form from local form storage memory.
- VUNLOADFORM {comarea, whichform}

VOPENFORMF

- Opens forms file for access.
- VOPENFORMF {comarea, formfile}

VGETFIELDINFO

- Returns information about specified fields to an application.
- VGETFIELDINFO {comarea, infobuf, infobuflen}

VGETFORMINFO

- Returns information about specified forms to an application.
- VGETFORMINFO {comarea, infobuf, infobuflen}

VPRINTF

- Prints the current form on an off-line list device.
- VPRINTF {comarea, printcnt1, pagecnt1 }

VCLOSEFORMF

- Closes an open forms file.
- VCLOSEFORMF {comarea}

VGETFILEINFO

- Returns information about a forms file to an application.
- VGETFILEINFO {comarea, infobuf, infobuflen}

VGETNEXTFORM

- Reads the next form from an open forms file into the form definition area of memory.
- VGETNEXTFORM {comarea}

VCHANGEFIELD

- Allows dynamic field attribute definition.
- VCHANGEFIELD {comarea, specbuffer, numentries}

VINITFORM

- Initializes fields in the data buffer according to specifications defined in the initialize phase of field definition.
- Both VOPENFORMF and VGETNEXTFORM must have been executed successfully prior to calling VINITFORM.
- VINITFORM {comarea }

VFINISHFORM

- Performs any processing specifications defined for the final phase of field editing.
- VFINISHFORM {comarea}

VFIELDDEDITS

- Edits data entered in each field of a form and, if indicated, modifies data in the data buffer. If necessary, sets error flags.
- VFIELDDEDITS {comarea}

VCLOSEBATCH

- Closes an open batch file.
- VCLOSEBATCH {comarea}

VPOSTBATCH

- Protects a user-specified portion of the batch file from a system crash by posting an end-of-file mark after the last record referenced and updating the batch file labels.
- VPOSTBATCH {comarea}

VWRITEBATCH

- Writes a record to the batch file from the data buffer in memory, or deletes a record from the batch file.
- VWRITEBATCH {comarea}

VOPENBATCH

- Opens existing batch file for processing; or, if the specified file is new, creates a batch file and then opens it for processing.
- VOPENBATCH {comarea, batchfile}

VREADBATCH

- Reads the contents of the current batch record into the data buffer in memory.
- VREADBATCH {comarea}

VGETBUFFER

- Copies the entire contents of the data buffer from memory to an application.
- VGETBUFFER {comarea, buffer, buflen}

VPUTBUFFER

- Copies data from an application to the data buffer in memory.
- VPUTBUFFER {comarea, buffer, buflen}

VGETtype

- Copies character coded data contents from the data buffer into an application, converting numeric value to specified type.
- VGETtype {comarea, fieldnum, variable} [{,numdigits, decplaces}]

VGETFIELD

- Copies the contents of a specified field from the data buffer in memory to an application.
- VGETFIELD {comarea, fieldnum, fieldbuf, buflen, actualen, nextfldnum }

VPUTFIELD

- Copies data from an application into a specified field in the data buffer in memory.
- VPUTFIELD {comarea, fieldnum, fieldbuf, buflen, actualen, nextfldnum }

VPUTtype

- Copies a numeric value of a specified type from an application to a field in the data buffer in memory, converting the value to the character set coded external representation.
- VPUTtype {comarea, fieldnum, variable}

VERRMSG

- Returns a message corresponding to the error number of an edit error or an intrinsic call error.
- VERRMSG {comarea, buffer, buflen, actualen}

VGETKEYLABELS

- Retrieves global or current form function key labels.
- VGETKEYLABELS {comarea, formorglob, numoflabels, labels }

VSETKEYLABEL

- Allows for temporarily setting, programmatically, a new label for a function key.
- VSETKEYLABEL {comarea, formorglob, keynum, label}

VGETLANG

- Returns the native language ID assigned to the forms file.
- VGETLANG {comarea, langnum}

VSETERROR

- Sets the error flag of a specified field and increments *numerrs*. If this is the first field (in screen order) with an error, it copies a message to the window area of memory for later display.
- VSETERROR {comarea, fieldnum, message, msglen}

VPUTWINDOW

- Copies a message to the window area of memory.
- VPUTWINDOW {comarea, message, length}

VSETKEYLABEL

- Allows for temporarily setting, programmatically, a new label for a function key.
- VSETKEYLABEL {comarea, formorglob, keynum, label}

VSETLANG

- Specifies the native language to be used with an international forms file.
- VSETLANG {comarea, lannum, errorcode}

VPLUS Documentation

- HP Data Entry and Forms Mgmt System (VPLUS) Reference Manual Edition 6, 3/2000– 32209-90024
- Using VPLUS/V: An Introduction to Forms Design Edition 3, 8/86 – 32209-90004

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