

Replacement Variables

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Note: This document is very, very preliminary!

Segment Variables:

Each program or code segment can have “replacement variables” that will be resolved to actual values when the program is generated. In this way one fragment can be used a template for many programs.

Like the segments, they can be roughly divided into “infrastructure” and “field” variables. Below are some samples, but this list is by no means complete (there are about 90 defined at this point)

Infrastructure Variables

- %PGM** **Program name.** This variable holds the name of the program being generated.
- %TYPE** **Program Type.** This variable will be (for example) GS or ATG
- %TITLE** **Program Title.** This variable holds the title of the program as entered in the **Update Program Definition** screen.
- %FN** **Data File Name.** This is the name of the file as it was designated at the time of creation. For example, if the file was called **CUSTOMER**, the **%FN** variable would contain the value **CUSTOMER**.
- %FV** **File variable name.** This is the internal BASIC file variable name used in the **OPEN** statement. For example, if the file name is **CUSTOMER**, the **%FV** variable would contain the value **CUSTOMER.FILE**. All file names used by **The Programmer's Helper** are appended with **".FILE"** for internal use. (**NOTE:**if the file was originally named with the **".FILE"** extension, the code generator ignores it and leaves it as is.)
- %RECORD** **Record Name.** This is the name of the array that will be used to **MATREAD** and **MATWRITE** the item. For example, if the file name used in the program is **CUSTOMER.FILE**, the name of the data array would be **CUSTOMER.REC**. All arrays used to contain file data use the file name with an suffix of **".REC"**.

%MVFOUND	If there is any multivalued field on the screen this will be 1
%MAXWIND	
%CLASS	ENTRY or WINDOW
%VERS	Version number of program.
%AUDITFILE	Physical (“external”) name of audit file
%AUDITFV	File variable used to open the audit file
%STYLE	Style codes (O=Optimistic locking, F=assign next id at file time, etc.)
%ARRAY	Dimension Array Size
%ANYCALC	There is a calculated field
%LAST	Last line used on screen
%MAXCOL	Right most column used
%FLAGS	Passed to TPH.BOTTOM.LINE for MV flag

Field Variables

The following replacement variables are called “**field**” or “**step**” variables. Their values will continually change from step to step and they are only defined within a data entry step.

%STEP	Step Number. This variable contains the step number of the attribute being entered.
%TEXT	Prompt Text. This is the prompt text that is displayed for each step. For example, let’s look at step 7.
%COL	Input Column. This is the data entry input column number for this step.
%LINE	Input Line. This is the data entry input line number for this step.
%LEN	Input Length. This is the maximum allowable input length for this step.
%REQ	Required Flag. This variable contains the value “ R ” if the step is required and cannot be bypassed.
%TPOS	Text Position. This is the column number where the prompt text will be printed for this step.

%TLINE **Text Line.** This is the line number where the prompt text will be displayed.

%MV **Multivalue Flag.** This variable contains the value one (1) if the step is part of a multivalued window.

%PART In multipart Item IDs which part is this field (1, 2, 3, etc.)

%MVDEPTH Depth of MV window (how many lines to display)

%CONV Conversion to be applied to the field

%SPEC Options

%MPART Max Part of multipart item ids

%OATTR Attribute name before converted to basic variable

%ATTR Field being updated as basic variable

%SUBNO Subroutine number (display and calculated fields)

%EDIT Validation passed to TPH.INPUT

%MASK Masked used to display value (e.g L#15)

%TABLE Name of table being validated against.

%FIRSTMV This is the control attribute of a MV set

%LOOKFILE File variable of the Validation (“Lookup”) file

%LOOKNAME Physical (“external”) name of validation file

%AMC Attribute number of current field

%COL Input column position of current field

%JUST Justification (L/R) of current field

%STEP Step number of current field (e.g., 1, 3.5, etc)

%SW

%UPDPGM Program to call to add a value not on file

%UPDSIZE Depth of zoom program

%MVWIND

%SUBSTEP Substep with MV (e.g. 4.1, 4.2)

%MAXSS Max Sub Step

%VAL Validation (Field) Type

%READID Display Field Item ID prefix

%CALC 1 = attribute used in a calculated field

%CALCSPEC Fields to recalculate

%SCHAR Separation character (e.g. ABC*DEF)

%LOOKPREFIX BASIC name of DISPLAY Field file

%CTRL Controlling Attr Name (GUI Only)

%CTRLNAME BASIC name of CTRL

%LOOKINDEX 1 = Validation file is indexed (upd.file only – have DO.SEARCH call LIST.CODES if no index?)

%FILEINDEX As above for main file

%NAVATTR Index to use for ‘Next’ & ‘Prev’

%FORM GUI Form (Needed?)

%GUICTRL GUI Control (Needed?)

%CODEONE
%CODETWO
%CODETHREE
%CODEFOUR

These four are miscellaneous fields used by the generator