

First column	The column is used to select given local variable in the list. Double-click on the column corresponds to clicking the button OK in the dialog window. After inserting graphic objects from clipboard into picture , the column shows symbols for added local variable or name or definition conflict.
Second column	Shows how many times it is used in graphic objects of the picture (not in the picture scripts); does not apply to INOUT category.
Variable name	Local variable name. The name can be used either for connection to picture graphic object or in the picture script. The name must begin with the character '_' (underline).

Category	Category of the local variable. According to selected category, local variables in the list are shown in corresponding colors:  LOCAL - basic local variable  INOUT - input-output local variable used for passing parameters between pictures  REFID - reference local variable used for object identification in picture script  INDEX - indexed local variable that specifies a row of structured variable
Value types	Local variable value type. Possible types: BOOL - binary, logical variable INT - integer variable REAL - real variable TIME - variable of Absolute time type TEXT - text variable STRUCT - structured variable
Structure	The attribute is valid only for the value type STRUCT and defines the object of Structure definition type, that determines the type of structured local variable. The attribute is also valid for index local variable that handles a filter (detailed description in index local variables below).
Value	- it defines, for reference variable, its value for use in the picture script. - it is a start value for local and external variables
Filter type	- filter type of index local variable (detailed description in index local variables below). - parameters for local and external variables: - No start value - without a start value - Passive - a passive start value - it is only set when opening the picture - Active - an active start value - when clicking above visible, not forbidden graphic object which uses the local variable for displaying, the value of intern identifier of object in D2000 presented by MyValue expression is set automatically. This value can be used in display palettes using MyValue expression in status script of a palette row.
Status text	Object of Status text type that will be used for displaying the value of the local variable when it is connected to graphic object.
Text palette	Mask definition from transformation palette for value types INT, REAL, and TIME from LOCAL and INOUT categories.

Note: Items without meaning are unavailable and are marked with ---

Use of local variables

Basic variables	They are used for connection to graphic objects / Windows controls. Connection is being performed in the palette Connect object - the tab <i>Connect, Palettes, Control...</i> Using such a connected local variable allows to read or modify the object contents and change the variable value.
Input-output variables	They are used for parameter passing among pictures. Among pictures they are paired by name - when a picture is being opened from mother picture, the contents of mother picture variables is copied into input-output variables with the same names in the opened picture. Before closing the new picture, new contents of the input-output variables is copied to corresponding mother picture variables.

R e f e r e n c e v a r i a b l e s	They are used to name (identification) objects. There are three cases, you need to identify an object: <table border="1"> <tr> <td> • when you need to call an object function • when you define an object event handler • when you detect the event source in generic event handler </td><td> - e.g. %HI_SetText(_N1, "Text") - e.g. ENTRY N1_OnClick - e.g. ENTRY OnClick(IN INT _RefID) IF _RefID = _N1 THEN </td></tr> </table>	• when you need to call an object function • when you define an object event handler • when you detect the event source in generic event handler	- e.g. %HI_SetText(_N1, "Text") - e.g. ENTRY N1_OnClick - e.g. ENTRY OnClick(IN INT _RefID) IF _RefID = _N1 THEN
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I n d e x e d v a r i a b l e s	They are used to handle current displayed row of structured variable connected to graphic object to view. Handling the value of indexed variable from the picture script you can change current connected structure row. The change of value in the picture ensures the change of value of variable but not the connected row of structure. Index variables can handle so-called <i>filter</i>. Filter allows optimization of the communication between the processes D2000 Server and D2000 HI by distribution of the values of the row defined by the indexed variable and not the values of whole structured variable. In the case, the indexed variable must be bound with an structured variable using the attribute Structure. Filter type is defined in the attribute Filter type: • No filter - filtering is disabled - there are distributed value changes of all rows. • Passive - filtering is enabled. Initial value of the indexed variable is not defined - it must be initialized in the picture script. While no value of the indexed variable is defined no change of filtered structured variable is not distributed. • Active - filtering is enabled. Initial value of the indexed variable is automatically set according the picture instance. After opening the picture, the distributed value of the filtered structure row is according the picture instance number. When the filtering is enabled, value distribution can be also handled by the functions %HI_OpenRow, %HI_CloseRow, %HI_ChangeRow.		
E x t e r n a l v a r i a b l e s	Parameters of values of external variables can be set from a parent picture, which displays this picture in visual display unit as a subpicture. When setting parameters from a parenting picture, it is possible to bind on such external variable other variable. Then, the external variable represents the value of this bound variable. Any change of the bound variable will reflect into value change of the external variable. The binding applies in both directions, so the change of the external variable will cause change in the bound variable. The external variables are typically used when the picture is used as a component. It is possible to connect the external variables to graphic objects in the same way as the basic variables.		

Note:

List of local variables is sorted first by category (the column [Category](#)) and then by name (the column **Variable name**). Dialog box of local variables keeps the last sorting when it is reopened.

When a conflict occurs (see the chapter [Inserting graphic objects from clipboard into picture](#)), the list is sorted only by name.

Clicking on header of some column classifies the list downwards, next clicking classifies it upwards.

When the local variable is edited from the [Connect object palette](#), tab **Script**, the appropriate row in the dialog window of local variables is highlighted by color (gray color).