

Generating Functions in Frame Gallery

The frame gallery provides pretested and error-free frames that you can use to generate functions. Functions are dialogs and other Natural modules. When you use a frame, you need not "create" the dialogs yourself in the dialog editor.

There are two types of frames:

- **Prototype Frames:** This type of frame is used to create a prototype. Database access is not included. It is intended to provide a quick preview of the dialog layout which can then be discussed with, for example, the business department.
If you want to insert controls such as command buttons or any additional functionality into the generated prototype, you can use the dialog editor.
- **Production Frames:** This type of frame is used to generate dialogs. It is linked with an object view to provide database access.
An object view consists of access modules, local data areas and parameter data areas which allow database data for a given object type to be created, read, updated and deleted.

The following topics are covered below:

- Criteria for Using Frame Gallery Frames
 - Accessing the Frame Gallery
 - Creating an Object View
 - Generating Dialogs
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Criteria for Using Frame Gallery Frames

The frame gallery can be used to produce object views, dialogs and other modules, assuming the following prerequisites are met:

- the search key is unique;
- the key length does not exceed 65 bytes;
- the key is not contained in a periodic group and is not a multiple-value field.

Subdescriptors can be used, but generated code will require update if a field is used for more than one subdescriptor in a superdescriptor.

Superdescriptors can only be used if DDMs include descriptions of the structure of the superdescriptor. If you use a superdescriptor containing more than two components, you are advised to update the generated key and browse dialog layouts.

Keys other than alphanumeric, numeric, and packed are not fully supported. If you use such keys, you will need to add MOVE EDITED statements to the generated code.

You may wish to improve the display formats of some fields in list boxes and dialog layouts.

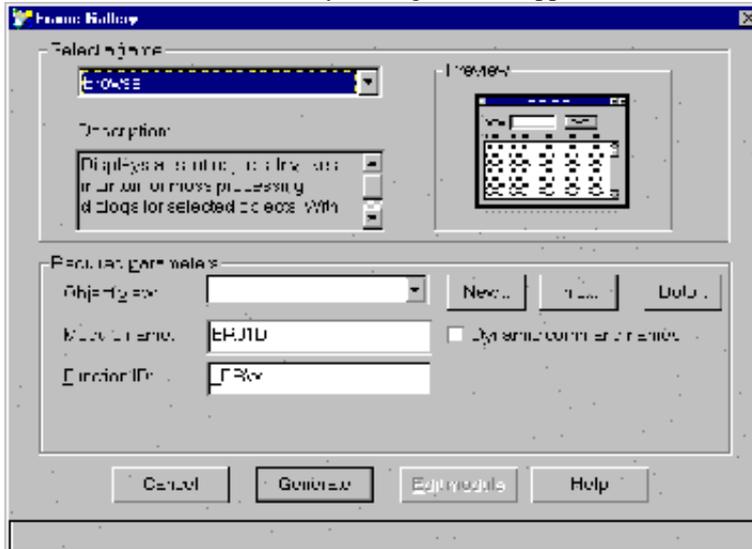
Accessing the Frame Gallery

To access the frame gallery

1. Open the database and start Natural.
2. From the Object menu, choose Generate. Or choose the Generate tool-bar button:



As a result, the "Frame Gallery" dialog window appears.



Creating an Object View

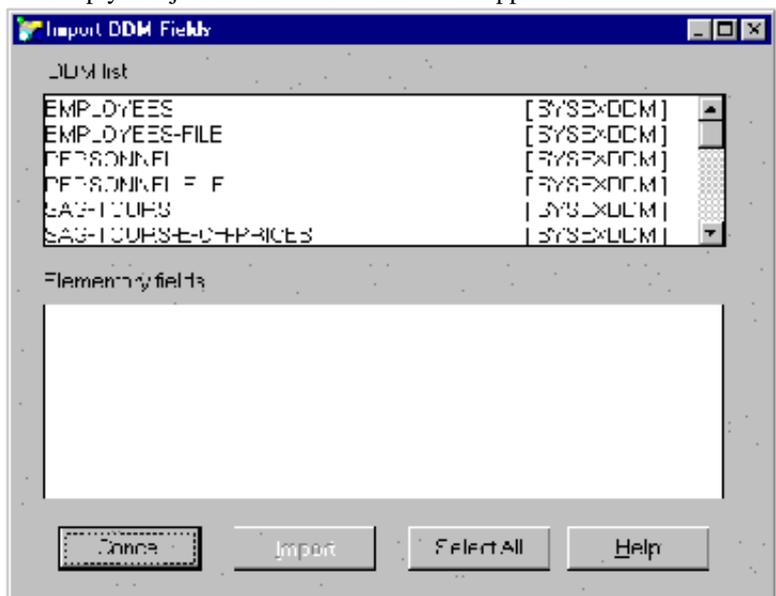
When creating a new dialog, you must define an object view.

An object view is a set of Natural modules used for standard database access (store, update, delete, read, list) for a number of fields selected from a data definition module (DDM).

▶ To create an object view

You first define the DDM and select the DDM fields that will be used.

1. In the "Frame Gallery" dialog window, choose the New button.
The empty "Object View Creation" window appears.

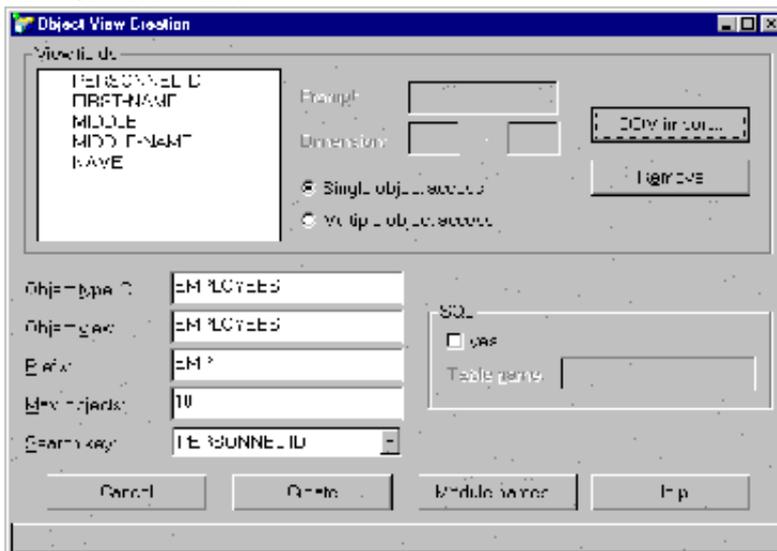


2. In the "DDM list" list box, select the DDM.

All the elementary fields of the DDM you selected are shown in the "Elementary fields" list box.



- In the "Elementary fields" list box, select the fields you want. To select more than one item, press CTRL while you click the item. You can also select a range of items by selecting the first item and then pressing SHIFT and clicking the last item. Or drag the mouse over a range of items. To select all items, choose the Select All button.
- Choose the Import button. All selected fields are imported and the window is closed. The imported fields are then shown in the "Object View Creation" window.



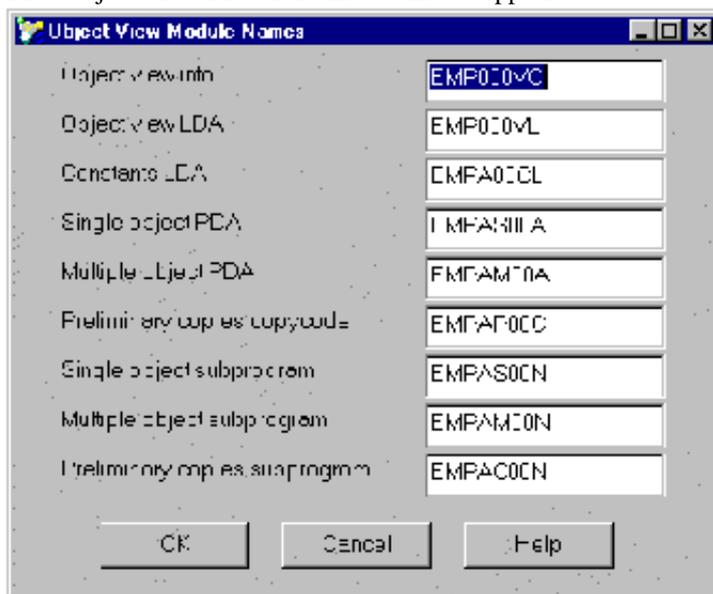
Optional - You can specify a prompt (label) to be used for a specific input field in the generated dialogs. If you do not specify a prompt, the prompt is derived from the name shown in the "View fields" list box.

- From the "View fields" list box, select the field. The default prompt appears in the "Prompt" text box. You can modify the prompt in this text box. Optional - For fields with a dimension, the dimension is set by default to 1. If necessary, you can update the dimension.
- From the "View fields" list box, select the field. The field's dimension appears in the "Dimension" text box. You can modify the dimension in this text box. The following parameters are used during the generation process. They can be modified.

Object type	By default, this is set to the DDM name. It is used to identify the object type in the application shell.
Object view	The logical name of the object view to be used in the generated module.
Prefix	The prefix used for field names, module names, function ID, etc. in the application shell.
Max. objects	This parameter applies to multiple object access: the maximum number of objects that are to be accessed with each call to the multiple object access module.
Search key	Search key for database access. The key must uniquely identify each object.
SQL	When you select this check box, you can create SQL access modules. The SQL table that you specify in the "Table name" text box will then be used. To remove search key components that are not required, select the "Search key" option button. Then select the fields from the "View fields" list box and choose the Remove button. Note that the search key consists of a maximum of five components.
Dynamic command names	By default, generated dialogs use fixed command names. If you check this box, command names are retrieved at runtime from the application shell's command definitions. Using the application shell, you can change dynamic command names without having to update dialogs. You can also translate command names into additional languages.

All fields that you have imported are available both for single-object access (for example in the maintain dialog) and multiple object access (for example in the key selection dialog).
Optional - You can remove fields that are not required for multiple-object access or single object access.

7. Select the "Multiple object access" option button.
Or select the "Single object access" option button.
8. Hold down CTRL and select all fields not required.
9. Choose the Remove button.
Only the required fields are now displayed in the "View fields" list box.
Optional - You can display and/or modify the names of the Natural modules that are to be generated.
10. To display the names of the modules, choose the Module Names button.
The "Object View Module Names" window appears.

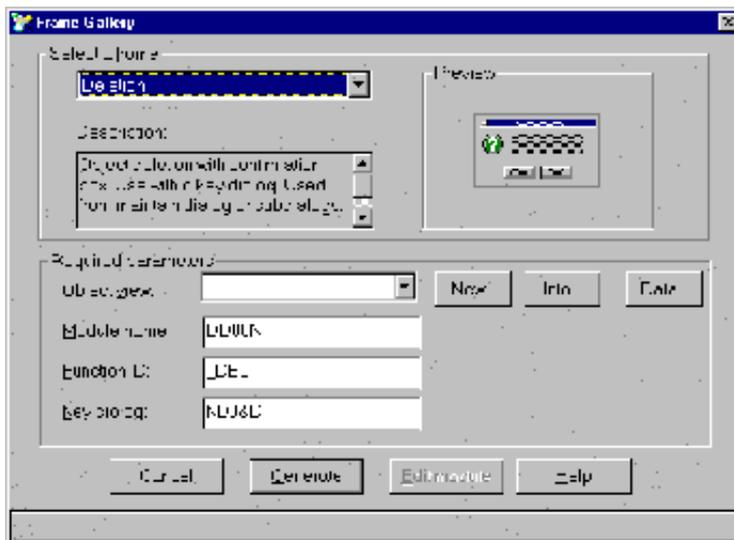


From this window you can rename the modules that will be generated.
When the object view has been created, you will find the generated Natural modules in your Natural library window.

Generating Dialogs

When at least one object view has been defined, you can generate dialogs.

The description below the frame name provides a brief description of the selected frame. It also informs you whether additional dialogs are required.



The "Object view" drop-down list box contains a list of available object views.

▶ To generate a dialog

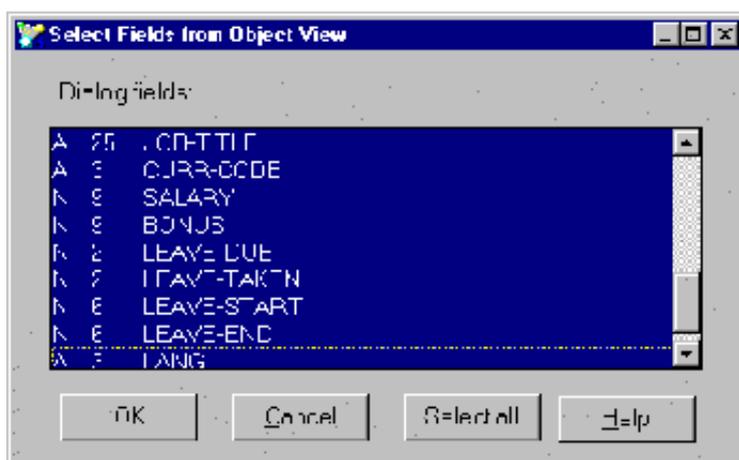
1. Optional - To add a new object view, choose the New button.
The "Object View Creation" window appears.
2. Optional - To display information about the object view, choose the Info button.
The "Object View Creation" window appears.

For frames which include a list box or a data entry component, you can select fields to be included in the default dialog layout. By default, the following fields are selected for display.

Data entry dialog component	All fields read by the selected object view's single object access module. With the exception of the nonstandard dialog, the list does not include the search key, which is included as a separate dialog component.
List box component	All fields read by the selected object view's multiple object access module, including the search key.

- To deselect some of the preselected display fields, choose the Data button. The "Select Fields from Object View" window appears.

Function ID	Frame Type
<u>_</u> BRW	Browse dialog
<u>_</u> MNT	Maintain dialog
<u>_</u> DEL	Deletion subprogram
<u>_</u> MASS	Mass processing dialog
<u>_</u> NST	Non-standard dialog



To select more than one item, you press CTRL while you click the item. You can also select a range of items by selecting the first item and then pressing SHIFT and clicking the last item. To select all items, you choose the Select All button.

- Choose the OK button to return to the "Frame Gallery" window. The "Module name" text box contains the name of the module that is to be generated. The name depends on the frame you have chosen. This name can be modified. The "Function ID" text box contains the ID that is used in the application shell in order to invoke the generated dialog. The ID can be modified. The following IDs are available:

Function ID	Frame Type
<u>_</u> BRW	Browse dialog
<u>_</u> MNT	Maintain dialog
<u>_</u> DEL	Deletion subprogram
<u>_</u> MASS	Mass processing dialog
<u>_</u> NST	Non-standard dialog

The "Key dialog" text box contains the module name of a key dialog that is required for a maintain dialog or deletion dialog. The key dialog can be generated before or after you generate a delete or maintain dialog. However, the key dialog must exist before the delete or maintain function can be invoked. If this is the first dialog for the object type, the "Add Object Type" window appears. Additionally, when you generate a browse, maintain, delete, mass processing, or nonstandard dialog, the "Add Function" window appears. These windows are similar.

5. In the "Name" text box, enter the name of the object type or function.
6. In the "DIL text" text box, enter the text to be displayed in the Dynamic Information Line for this object type or function.
7. Choose the OK button.
The dialog is created.
Optional - Choose the Edit module button.
The newly created dialog is loaded into the dialog editor and you automatically leave the frame gallery.