Object Maintenance

The application-shell defines an object type (or, more precisely, a dialog object) as a coherent set of business data that can be maintained together. For example, the following data elements could be combined to form the object type *Customer*: Customer number, Customer name, Street, Zip code and City. The name of the object type is used as a component of a command for dialog management.

The following topics are covered below:

- Application
- Background Procedure
- Background Process
- Command
- Dialog Type
- Error Log
- Function
- Function Group
- Initialized Data
- Languages
- Load Log
- Locks
- Object Type
- Preliminary File
- Table
- Tool Bar
- User

Application

Some application-shell objects can be defined for a specific application. To keep these objects independent of the Natural library name, applications must be maintained through the library names which are linked with internal codes.

Function Overview

Actions

- Browse
- Delete
- Display
- Modify
- New

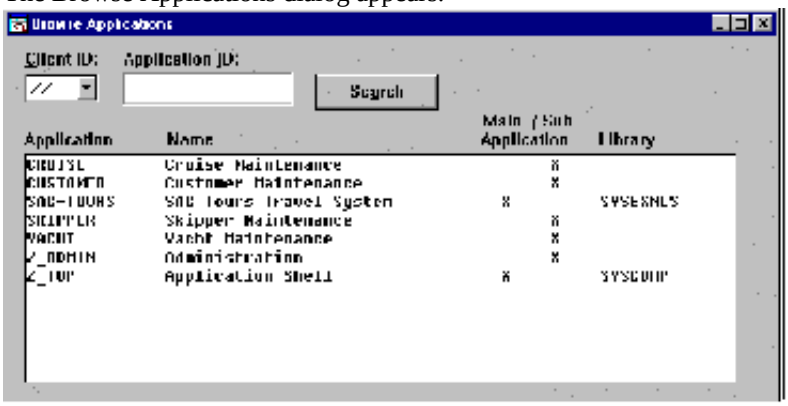
Subdialogs

- Translate
  - Name
  - DIL Text
- Assign

Browsing Through the Applications

To browse through currently defined applications

1. Choose the Application icon.
   The Browse Applications dialog appears.



   The Application list box contains all currently defined applications. For each application, the application ID, name, whether it is a main or sub-application and the Natural library in which the corresponding dialogs are stowed are displayed.

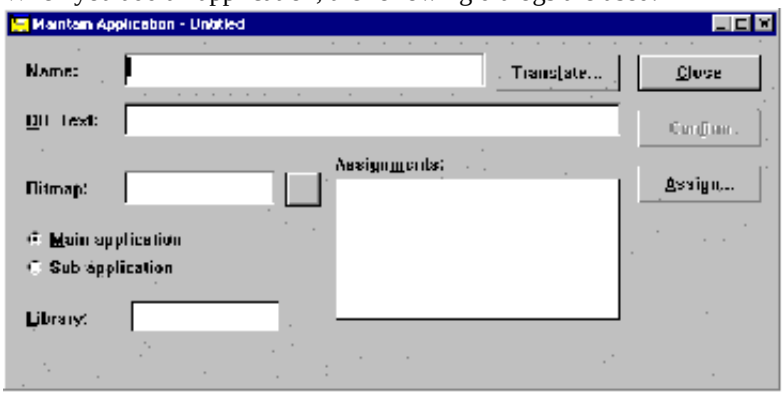
To search for an application

1. Choose the client from the Client ID drop-down list box.
2. In the Application ID text box, enter the application's full ID or the first couple of characters and choose the Search button.
   The system scrolls through the Application list box until that application appears at the top.

Adding Applications

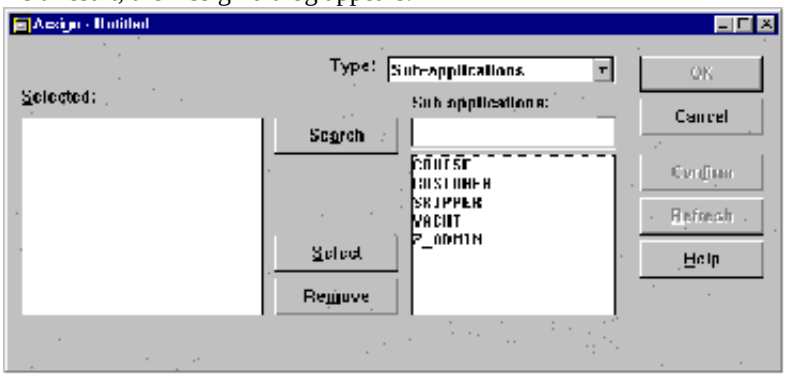
To add a new application

1. Choose the Application icon.
   The Browse Applications dialog appears.
2. Choose the Create a New Object tool bar button.
   The Maintain Application dialog appears.
   When you add an application, the following dialogs are used:



3. In the Name text box, enter the name of the application.
   If translating the name into another language is required, choose the Translate button.
   In multi-language applications, care must be taken that all command words are defined in all necessary languages, since otherwise there is no guarantee that all functions are available in all languages.
4. In the DIL text text box, enter the text to be displayed in the Dynamic Information Line when this application's icon is selected.
5. In the Bitmap text box, enter the name of the icon designated for this application.
   Do not include the icon file name extension ".bmp".
   You can obtain the name of the icon from the Natural bitmap library set in the NATGUI_BMP parameter.
   It is recommended that you use the predefined bitmap ZAPPL.

6. Select either the Main Application or Sub-application option button, depending upon the type of application.
7. (Required only if the application is a main application.) In the Library text box, enter the name of the Natural library in which this application is cataloged.
8. Choose the Assign button.
   As a result, the Assign dialog appears.



9. Choose the type of object(s) in the Type drop-down list box that will be available in the graphical navigation for this application (i.e. the icons that will be displayed when a application is choosen).

Type	Meaning
Start an application	The object type displayed is a sub-application.
Start a function	The object type displayed is a function.
Start a list	The object type is a browse function.

   You can select each type as often as you want. However, to activate a type, you must first complete the next step before you select another type.

10. In the Assign combo box, select the IDs which represent the sub-applications or lists that will be available with the object type selected in the previous step. In the case of functions, an additional drop-down list box appears below the Assign combo box. It contains the actions (e.g. display, delete) which can be performed with the functions. From the Assign combo box, select the action and function. As a result, the selected ID, the type of object (A - application, O - object type, F - function) and the action (only in case of functions) appear in the list box. To place a selected item in a particular position in the list box, first choose the position in the list box. From the Assign combo box, select the item. The new item will be placed above the selected position. If you want to remove an item, select the item in the list box and choose the Remove button.
11. Optional - Repeat the last two steps to define another object type.
    You can choose up to 36 assignments for each application.
12. Choose the OK button.
    The Maintain Application dialog appears.
    A message box appears. Choose the Yes button to save your changes.
    The "Save object as" dialog appears.

Modifying, Displaying or Deleting Applications

To modify or display an application

1. Choose the Application icon.
2. Choose the Modify an Object from the Browse Applications dialog, select the application to be modified.
   The Maintain Application dialog appears. If you need to modify the object, choose the Modify an Object button and make the modifications you want.

To delete an application

1. Choose the Application icon.
2. Choose the Delete an Object button from the Browse Applications dialog, select the application to be modified.
   A message box appears. Choose Yes to confirm, or No to cancel the deletion.

Background Procedure

Various functions (e.g. load and unload data) can be implemented as background processes so as not to delay online processing.

Besides the standard parameters that can be used with a background process, you can define up to 5 user parameters which further increases the flexibility of the procedure that is to be processed.

Function Overview

Actions

- Browse
- Delete
- Display
- Modify
- New

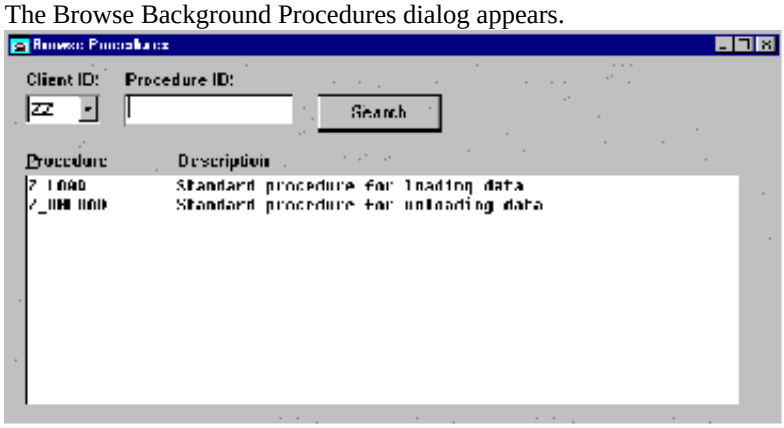
Subdialogs

- Translate
  - Description

Browsing Through Background Procedures

To browse through currently defined background procedures

- Choose the Background Procedure icon.
  The Browse Background Procedures dialog appears.



  The Procedure list box contains all currently defined procedures. For each procedure, the name and description of the procedure are displayed.

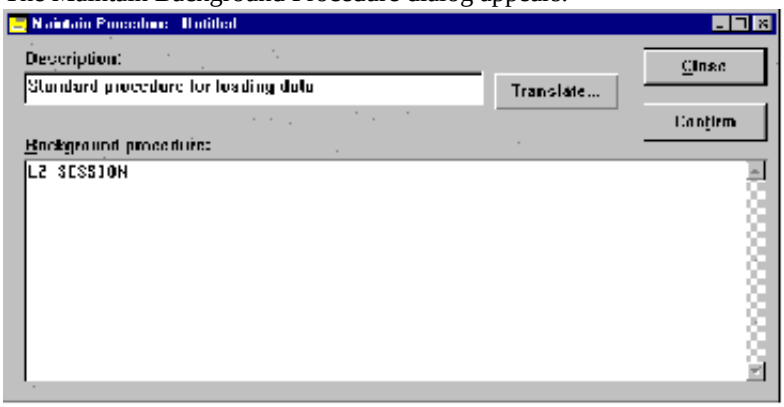
To search for a background procedure

1. Choose the client from the Client ID drop-down list box,.
2. Choose the Search button in the Procedure ID text box, enter the procedures full ID or the first couple of characters.
   The system scrolls through the Procedure list box until that procedure appears at the top.

Adding Background Procedures

To add a new background procedure

1. Choose the Background Procedure icon.
   The Browse Background Procedures dialog appears.
2. Choose the Add a New Object tool bar button.
   The Maintain Background Procedure dialog appears.



3. In the Description test box, enter a description of the background procedure.
   If translating the description into another language is required, choose the Translate button.
4. In the Background procedure text box, enter the application procedure for your system environment.
   This text box also contains standard parameters which can be used when loading or unloading data. Standard parameters begin with LZ.
   The following standard parameters are provided.

Standard Parameter	Description
LZ_BG_NAME	Name or title of background process
LZ_LIBRARY	Library in which the program will run
LZ_NATPARM	Natural parameter module
LZ_PROGRAM	Program name
LZ_PRINTER	Printer name
LZ_PRIORITY	Priority of process
LZ_PSW	Password
LZ_SESSION	Program name and time stamp
LZ_USER	User ID
LZ_WORKFILE	Work file path and name

   In addition, you can define up to 5 user parameters. They must begin with L_ (e.g. L_COMPANY_NAME). Before the procedures are run, the user must define how the user parameters will be used.
   A message box appears.

5. Choose the Yes button to save your changes.
   The "Save object as" dialog appears.

Modifying, Displaying or Deleting Background Procedures

To modify or display a background procedure

1. Choose the Background Procedure icon.
2. Choose the Modify an Object or Display an Object button from the Browse Background Procedures dialog. Select the procedure needed.
   The Maintain Background Procedure dialog appears.
   If you have chosen to display the object but want to modify the object, use the Modify an Object button and make the modifications you want.
   If you have modified the data, a message box appears. Use the Yes button to save your changes.

To delete a background procedure

1. Choose the Background Procedure icon.
2. Choose the Delete an Object button from the Browse Background Procedures dialog. Select the procedure needed.
   A message box appears.
3. Select Yes to confirm, or No to cancel the deletion.

Background Process

A background process can be used to observe procedures such as loading and unloading data.

For further information, see the Natural Frame Gallery documentationl.

Function Overview

Actions

- Browse
- Delete

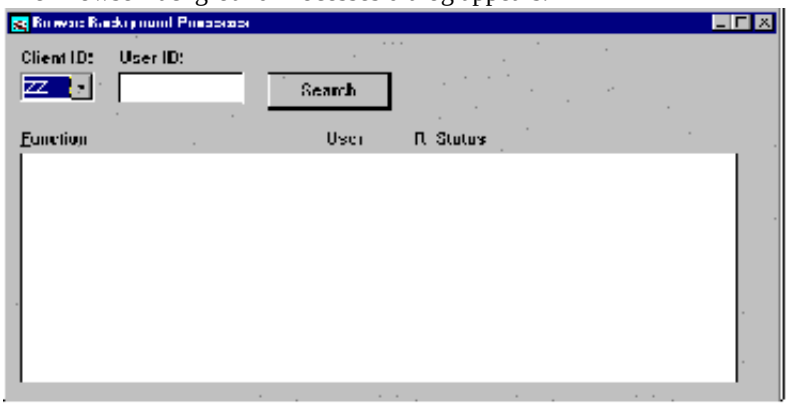
Subdialogs

- Display Error Log
- Modify Error Log

Browsing Through Background Processes

To browse through current background processes

- Choose the Background Process icon.
  The Browse Background Processes dialog appears.



The Function list box contains all existing processes. For each process, the function name, the user ID that started the process, whether or not the process can be restarted in case of an error (restartable indicated with an X in the "R" column) and the status of the process are displayed.

To search for a background process

1. In the Client ID drop-down list box, select the client.
2. In the User ID text box, enter the user’s ID and choose the Search button.
   The system scrolls through the Function list box until the processes for that user appear at the top.

Modifying, Displaying or Deleting Background Processes

To modify or display the error log via a background process

1. Choose the Background Process icon.
2. Choose the Modify an Object or Display an Object button from the Browse Background Processes dialog. Select the process needed.
   The Maintain Error Log dialog appears. If you have modified the data, a message box appears. Choose the Yes button to save your changes.

To delete a background process

1. Choose the Background Process icon.
2. Choose the Delete an Object button from the Browse Background Processes dialog. Select the process needed.
   A message box appears. Select Yes to confirm, or No to cancel the deletion.

Command

The combination of a command and object type is used to perform a function. The type of command (e.g. action, submenu, start an application) determines where or how the function is performed.

Function Overview

Actions

- Browse
- Delete
- Display
- Modify
- New

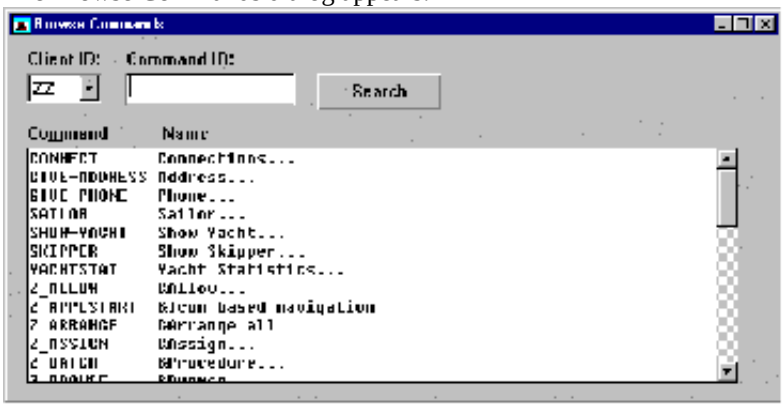
Subdialogs

- Translate
- Name
  - DIL text

Browsing Through Commands

To browse through existing commands

- Choose the Command icon.
  The Browse Commands dialog appears.



  The Command list box contains all currently defined commands. For each command, the command ID and command's full name are displayed.

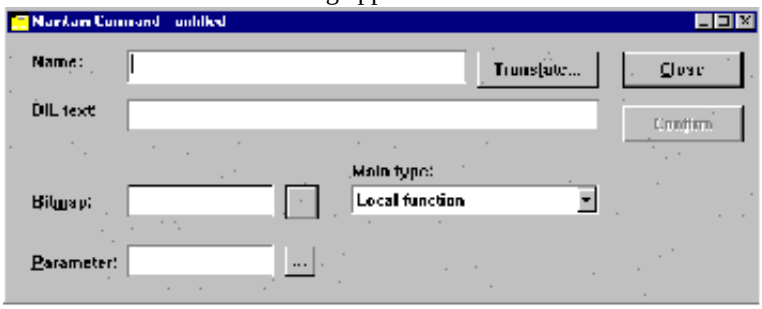
To search for a command

1. In the Client ID drop-down list box, select the client.
2. In the Command ID text box, enter the command's full ID or the first couple of characters and choose the Search button.
   The system scrolls through the Command list box until that command appears at the top.

Adding Commands

To add a new command

1. Choose the Command icon.
   As a result, the Browse Commands dialog appears.
2. Choose the Create a New Object tool bar button.
   The Maintain Command dialog appears.



3. In the Name text box, enter the full name of the command.
   If translating the name into another language is required, choose the Translate button.
   In multi-language applications, care must be taken that all commands are defined in all necessary languages, since otherwise there is no guarantee that all functions are available in all languages.
4. In the "DIL text" text box, enter the text to be displayed in the Dynamic Information Line when this command's button is chosen.
5. In the Bitmap text box, enter the name of the icon designated for this command.
   You need only to define a bitmap for a command when you also define a tool bar button for the command.
   You can obtain the name of the icon from the Natural bitmap library set in the NATGUI_BMP parameter.
   Do not include the bitmap file name extension ".bmp".
   An example of the bitmap appears to the right of the Bitmap text box.

6. In the Main Type drop-down list box, select the primary function the command will perform.
   You can select one of the following:

Use	Description
Local function	A local function is started directly from the current dialog. It can be a subdialog or an internal calculation. For example, Translate. If selected, skip Step 6.
Action	An action is performed, e.g. Add, Modify. If selected, skip Step 5.
Start a browser	A browse is started. If selected, skip Step 6.
Start a function	A function is started, e.g. Add customer.
Start an application	An application is started. If selected, skip Step 6.
Submenu	A drop-down menu appears when a menu command is selected. If selected, skip Steps 5 and 6.

7. In the Parameter text box, enter:
   - an object type, if you selected Start a Browser in Step 4,
   - or a function, if you selected Start a Function in Step 4,
   - or an application, if you selected Start an Application in Step 4.

   If you selected Local Function in Step 4, you need not enter a parameter.
   This drop-down list box appears only if you selected Action as the main type in Step 4.
   You can select one of the following:

Type	Description
Add	Add an object.
Modify	Modify an object.
Display	Display an object.
Delete	Delete an object.
Mass Processing	Perform mass processing on several objects.

   A message box appears. Choose the Yes button to save your changes.

Modifying, Displaying or Deleting Commands

To modify or display a command

1. Choose the Command icon.
2. Choose the Modify an Object or Display an Object button from the Browse Commands dialog. Select the command needed.
   As a result, the Maintain Command dialog appears.
   If you have chosen to display the command but really want to modify it, choose the Modify an Object button and make the modifications you want.
3. Choose the Close button.
   If you have modified the data, a message box appears. Choose the Yes button to save your changes.

To delete a command

1. Choose the Command icon.
2. Choose the Delete an Object button from the Browse Commands dialog. Select the command needed.
   A message box appears. Select Yes to confirm, or No to cancel the deletion.

Dialog Type

When you add a main dialog, you must also assign a tool bar. Tool bars are not defined for subdialogs (e.g. the Translation dialog). It is recommended that you first add the dialog type without specifying a tool bar, then add the tool bar and, finally, modify the dialog to define the newly created tool bar.

Function Overview

Actions

- Browse
- Delete
- Display
- Modify
- New

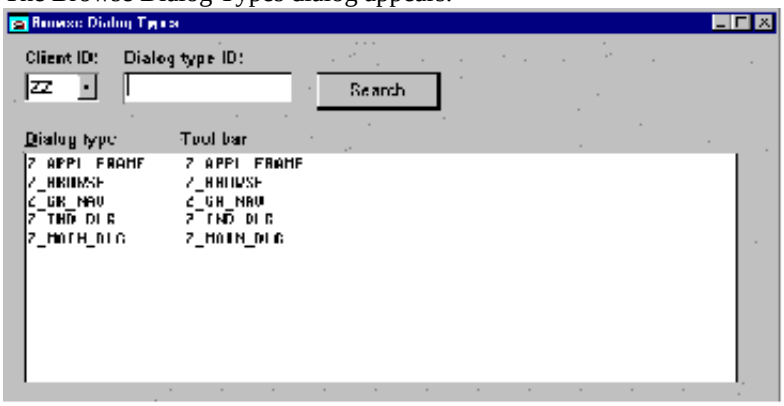
Subdialogs

- None

Browsing Through Dialog Types

To browse through existing dialogs

- Choose the Dialog Type icon.
  The Browse Dialog Types dialog appears.



  The Dialog Type list box contains all currently defined dialogs. For each dialog, the dialog ID and the corresponding tool bar ID are displayed.

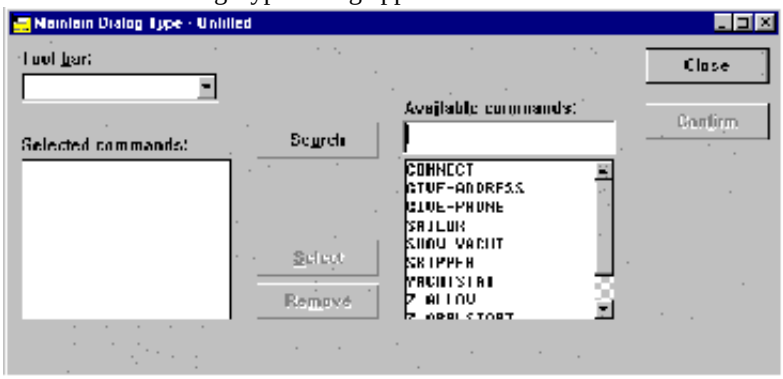
To search for a dialog

1. In the Client ID drop-down list box, select the client.
2. In the Dialog type ID text box, enter the dialog’s full ID or the first couple of characters and choose the Search button.
   The system scrolls through the Dialog Type list box until that dialog appears at the top.

Adding Dialog Types

To add a new dialog type

1. Choose the Dialog Type icon.
   The Browse Dialog Types dialog appears.
2. Choose the Create a New Object tool bar button.
   The Maintain Dialog Type dialog appears.



3. In the Tool Bar drop-down list box, select the tool bar that is to be displayed with this dialog type. If you have not yet defined the tool bar, leave this drop-down list box blank. When you have completed the remaining steps, define the tool bar and then complete this step.
4. Choose the commands from the Available Commands combo box for the dialog type needed.
   The selected commands appear in the Selected Commands list box.
   If you have selected a command you do not want, mark the command in the Selected Commands list box, and use the Remove button. The command is then removed from the list box.
   A message box appears.
5. Choose the Yes button to save your changes.
   The "Save object as" dialog appears.

Modifying, Displaying or Deleting Dialog Types

To modify or display a dialog type

1. Choose the Dialog Type icon.
2. Choose the Modify an Object or Display an Object button from the Browse Dialog Types dialog. Select the dialog type needed. If you have chosen to display the dialog type but really want to modify it, choose the Modify an Object button and make the modifications you want.
3. Choose the Close button.
   If you have modified the dialog type, a message box appears. Choose the Yes button to save your changes.

To delete a dialog type

1. Choose the Dialog Type icon.
2. Choose the Delete an Object button from the Browse Dialog Types dialog. Select the dialog type needed.
   A message box appears. Select Yes to confirm, or No to cancel the deletion.

Error Log

Errors which occur during a load or unload are stored in the error log.

Function Overview

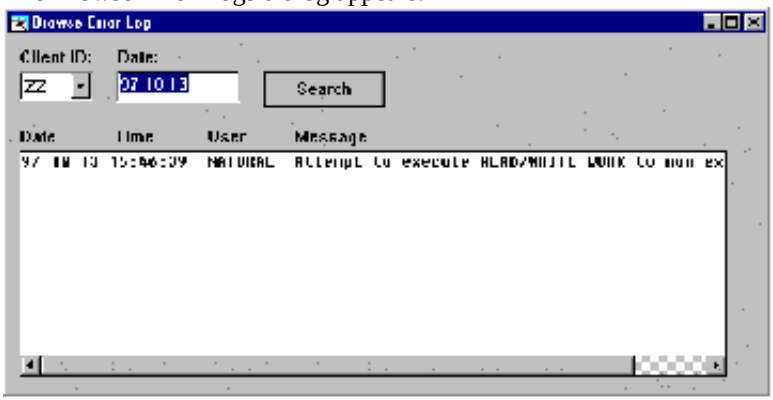
Actions

- Browse
- Delete
- Display
- Modify

Browsing Through Error Logs

To browse through existing error logs

- Choose the Error Log icon.
  The Browse Error Logs dialog appears.



  The Date list box contains all error logs that occurred on or after the date specified in the Date text box. For each error log, the date and time the error occurred, the user ID, and a description of the error are displayed.

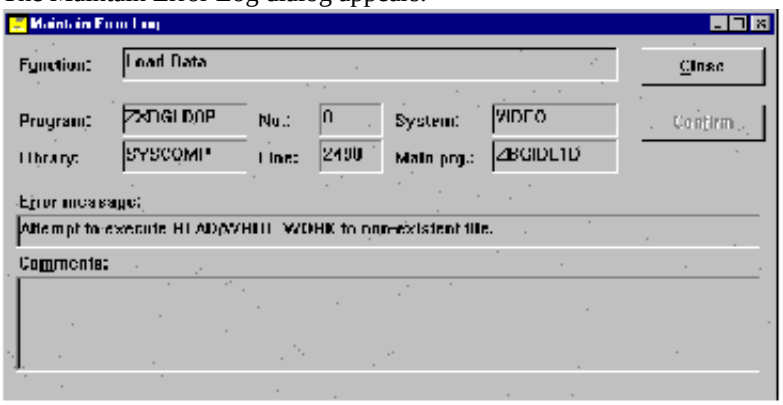
To search for an error

1. In the Client ID drop-down list box, select the client.
2. In the Date text box, enter the start date and choose the Search button.
   The system scrolls through the Date list box until the errors which occurred on or after the start date appear at the top.

Displaying Error Logs

To display error logs

1. Choose the Error Log icon.
2. Choose the Display an Object button from the Browse Error Logs dialog. Select the dialog type needed.
   The Maintain Error Log dialog appears.



Function	Name of function that caused the error.
Program	Name of Natural program that generated the error.
No.	Error number.
System	Device type/mode from which Natural has been invoked.
Library	Name of Natural library containing the program in which the error occurred.
Line	Line number in program in which error occurred.
Main prg.	Dialog ID that called the background program.
Error message	Description of error.
Comments	Description of any prior actions performed that could have caused the error and/or recommendations to correct the error.

Modifying or Deleting Error Logs

To modify an error log

1. Choose the Error Log icon.
2. Choose the Modify an Object button from the Browse Error Log dialog. Select the dialog type needed.
3. In the Comments text box, enter a description of any prior actions performed that could have caused the error and/or recommendations to correct the error.
4. Choose the Close button.
   A message box appears. Choose the Yes button to save your changes.

To delete an error log

1. Choose the Error Log icon.
2. From the Browse Error Logs dialog, select the log and choose the Delete an Object button.
   A message box appears. Choose the Yes button to confirm, or No to cancel the deletion.

Function

A function consists of a command and an object type. One or more dialogs and subprograms are responsible for the execution of the function. Before a function can be executed, the function must first be defined as a combination of a command and an object type.

Before you define a function, ensure that the required commands and object type have been defined.

Function Overview

Actions

- Browse
- Delete
- Display
- Modify
- New

Subdialogs

- Translate

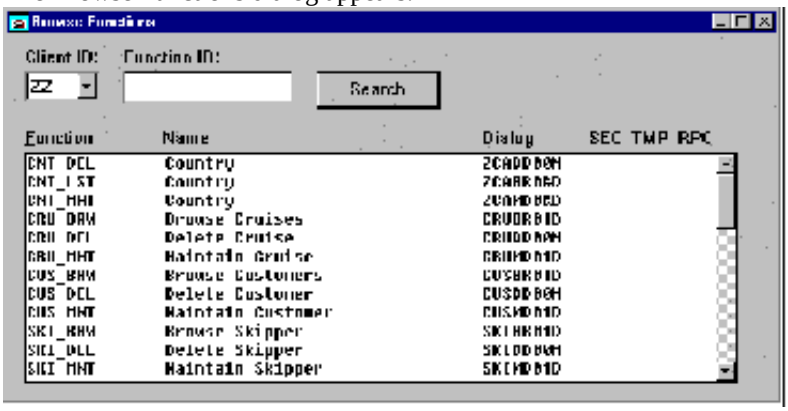
Translate

- Function name
- DIL text

Browsing Through Functions

To browse through existing functions

1. Choose the Function icon.
   The Browse Functions dialog appears.



   The Function list box contains all currently defined functions. For each function, the function ID, function name, the dialog ID or name of the subprogram in which the function is implemented and the set up (e.g. access security, temporary copy) are displayed.

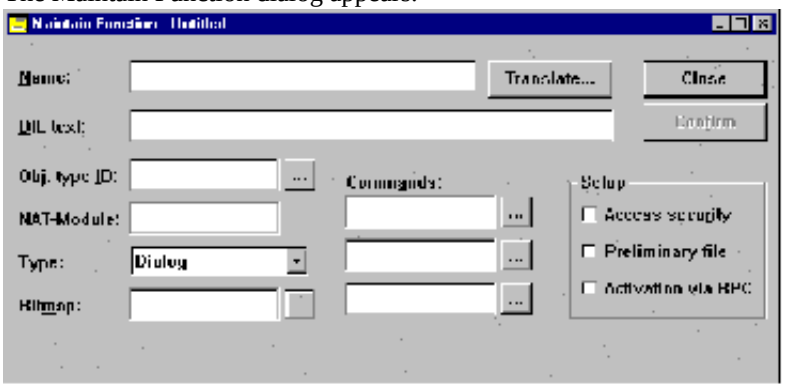
To search for a function

1. Choose the client from the Client ID drop-down list box.
2. Choose the Search button from the Function ID text box, enter the function's full ID or the first couple of characters.
   The system scrolls through the Function list box until that function appears at the top.

Adding Functions

To add a function

1. Choose the Function icon.
   The Browse Functions dialog appears.
2. Choose the Create a New Object tool bar button.
   The Maintain Function dialog appears.



3. In the Name text box, enter the name of the function.
   If translating the name into another language is required, choose the Translate button.
   In multi-language applications, care must be taken that all functions are defined in all necessary languages to ensure correct operation.
4. In the DIL Text text box, enter the text to be displayed in the Dynamic Information Line when the icon for this function is chosen.
5. In the Obj. type ID text box, enter the ID of the object type,
   or if you are unsure of the ID, choose Settings button to the right of this text box.
   The object type ID determines the type of object, e.g. Customer, Contract.
   If you selected the Settings button, the Selection dialog appears.
6. From the Type drop-down list box, select one of the following:

Dialog	The function will be implemented in a dialog.
Subprogram	The function will be implemented as a subprogram.

7. In the Natural Module text box, enter the name of the dialog ID if you select Dialog or enter the name of the subprogram if you select Subprogram.
8. In the Bitmap text box, enter the name of a previously defined bitmap.It is recommended that you use the predefined bitmap ZFCT. An example of how the bitmap will be displayed in the application appears to the right of the text box.
   In the following step, you must define the commands that can be performed with this function. You can define up to three commands. The commands are then linked to the object type. The combination of a command and the object type must be unique, i.e. the combination cannot be used with another function.
9. In the Command text boxes, choose the Settings button.
   The selection dialog appears.
10. From the Maintain Function dialog, you can select one or more items in the Setup group box:

Access security	Function will only be available to users with authorization.
Temporary copy	Any modifications made with this function will be maintained in a preliminary file instead of in an internal buffer until the modifications are saved.
Activation via RPC	Remote procedure call with a LAN or WAN.

11. Choose the Close button.
    A message box appears. Choose the Yes button to save your changes, No to quit without saving your changes, or Cancel to return to the Maintain Function dialog.
    If you chose the Yes button, the "Save object as" dialog appears.

Modifying, Displaying or Deleting Functions

To modify or display a function

1. Choose the Function icon.
2. Choose the Modify an Object or Display an Object button from the Browse Functions dialog. Select the function needed.
   The Maintain Function dialog appears. If you have chosen to display the function but really want to modify it, choose the Modify an Object button and make the modifications you want.
3. Choose the Close button.
   If you have modified the function, a message box appears. Choose the Yes button to save your changes.

To delete a function

1. Choose the Function icon.
2. From the Browse Functions dialog, select the function and choose the Delete an Object button.
   A message box appears. Choose Yes to confirm, or No to cancel the deletion.

Function Group

To define the functional access security, sets of functions are collected into function groups that can then in turn be linked to users. A function group must be defined before one or more functions can be linked to it.

Function Overview

Actions

- Browse
- Delete
- Display
- Modify
- New

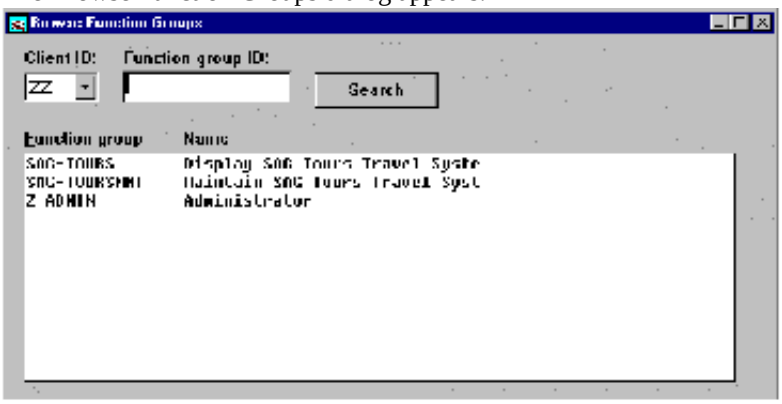
Subdialogs

- Allow Functions
- Disallow Functions
- Translate
  Affected text box:
  - Function group name

Browsing Through Function Groups

To browse through existing function groups

- Choose the Function Group icon.
  The Browse Function Groups dialog appears.



  The Function group ID list box contains all currently defined function groups. For each function group, the function-group ID and name are displayed.

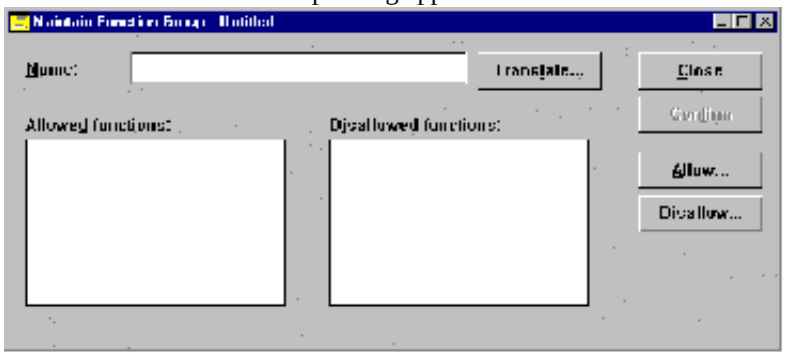
To search for a function group

1. In the Client ID drop-down list box, select the client.
2. In the Function Group ID text box, enter the function group's ID or the first couple of characters and choose the Search button.
   The system scrolls through the Function group list box until that function group appears at the top.

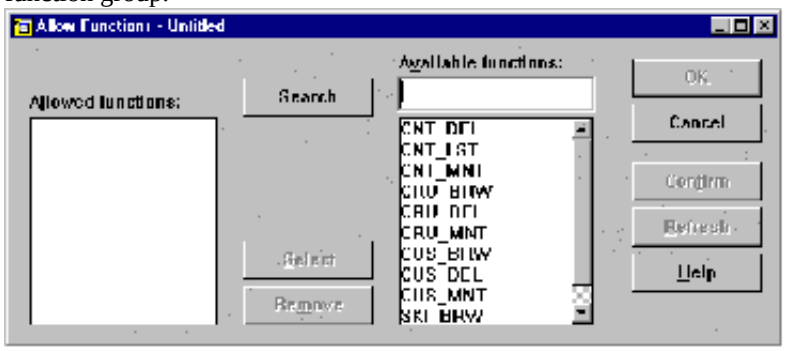
Adding a Function Group

To add a new function group

1. Choose the Function Group icon.
   The Browse Function Groups dialog appears.
2. Choose the Create a New Object tool bar button.
   The Maintain Function Group dialog appears.

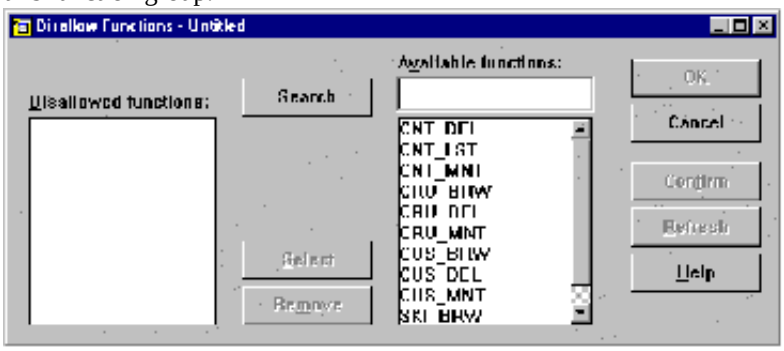


3. In the Name text box, enter the name of the function group.
   If translating the name into another language is required, choose the Translate button.
   In multi-language applications, care must be taken that all function groups are defined in all necessary languages to ensure correct operation.
4. Choose the Allow button.
   The Allow Functions dialog appears. From this dialog, you can select the functions that are to be a part of this function group.



5. In the Available Functions combo box, select the function you want to include in the function group and choose the Select button.
   The function you selected appears in the Allowed functions list box.
   If you choose a function you do not want, choose the function from the Allowed functions list box and use the Remove button. The function is then removed from the list box.

6. Choose the OK button.
   As a result, the functions are displayed in the Allowed functions list box in the Maintain Function Group dialog.
   The Disallow Functions dialog appears. From this dialog you can select the functions that cannot be used with this function group.



7. In the Available Functions combo box, select the functions you want to disallow and choose the Select button.
   As a result, the functions you selected appear in the Disallowed functions list box.
   If you select a function you do not want to disallow, select the function from the Disallowed functions list box, and choose the Disallow button. The function is then removed from the list box.
8. Choose the OK button.
   The functions are displayed in the Disallowed Functions list box in the Maintain Function Group dialog.

Modifying, Displaying or Deleting a Function Group

To modify or display a function group

1. Choose the Function Group icon.
2. Choose the Modify an Object or Display an Object button from the Browse Function Groups dialog, select the function group needed.
   The Maintain Function Group dialog appears.
   If you have chosen to display the function group but really wanted to modify it, choose the Modify an Object button and make the modifications you want.
   If you have modified the function group, a message box appears. Choose the Yes button to save your changes.

To delete a function group

1. Choose the Function Group icon.
2. Choose the Delete an Object button from the Browse Function Groups dialog, select the function group needed.
   A message box appears. Select Yes to confirm, or No to cancel the deletion.

Initialized Data

Initialized data is created whenever the application-shell is started. The object types, functions, commands, etc. you are permitted to access are recorded in the data buffer during the initialization. Each time an object type and action is performed, it is also recorded in the data buffer. Thus if a problem occurs, you can use the initialized data to quickly determine the error.

Note:
You cannot access initialized data for other administrators or developers.

Function Overview

Actions

- Display
- Refresh

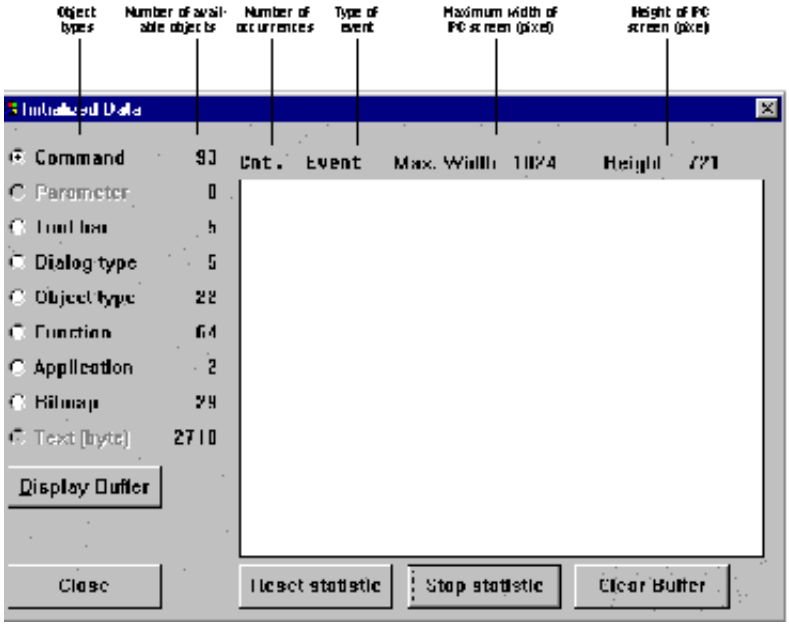
Subdialogs

- None

Displaying Initialized Data Information

To display existing initialized data information

1. From the Options menu, choose the Display initialized data icon.
   The Data Buffer Information dialog appears.



   The Initialized Data Information dialog displays the events that have occurred from your PC since the application-shell was initialized and the number of object types, functions, commands, etc. that are accessible to you in the data buffer. With each event you perform, the data buffer is updated. The next time you display this dialog, it is also updated.

2. Optional - Select an option button and choose the Display Buffer button.
   A report appears listing the available objects in the data buffer.
3. Choose the Close button to return to the Initialized Data dialog.
4. Optional - Choose the Reset Statistic button to refresh the dialog.
5. Optional - Choose the Stop Statistic button to stop updating the data buffer.
6. Optional - Choose the Clear Buffer button to clear the data buffer before the next initialization.

To refresh initialized data information

- Choose the Refresh initialized data icon from the Options menu.
  The application-shell is re-initialized and the data buffer is refreshed.

Languages

An application can be used in a maximum of 9 languages. The application-shell is delivered with 9 predefined languages. However, error messages and dialogs are initially only available in English and German. The Language icon contains information on all languages available within the application.

To use an application in a language other than English or German, error messages and dialogs must be translated. For further information, see the Natural Frame Gallery documentation. Next, the data contents in the dialogs must be translated.

Function Overview

Actions

- Browse
- Delete
- Display
- Modify
- New

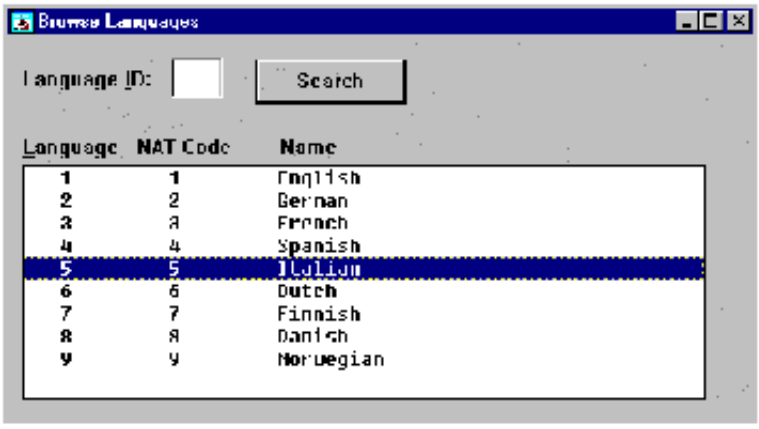
Subdialogs

- Translate
  Affected text boxes:
  - Name
  - DIL text

Browsing Through Languages

To browse through currently defined languages

- Choose the Language icon.
  The Browse Languages dialog appears.



  The Language list box contains all currently defined languages. For each language defined, the internal application-shell number, the Natural language code and the name of the language are displayed.

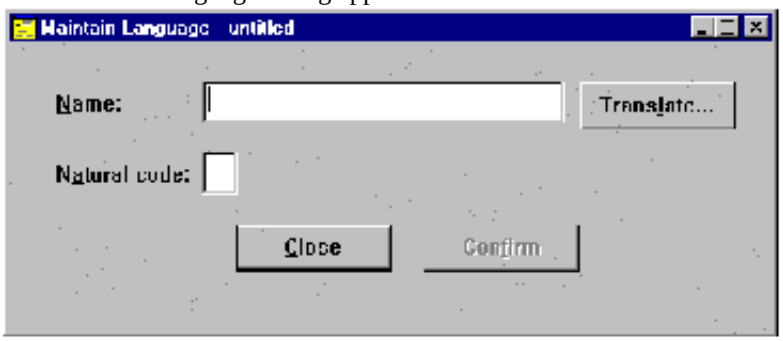
To search for a language

- In the Language ID text box, enter the language's internal application-shell number for that language and choose the Search button.
  The system scrolls through the Language list box until that language appears at the top.

Adding a Language

To add a new language

1. Choose the Language icon.
   The Browse Languages dialog appears.
2. Choose the Create a New Object tool bar button.
   The Maintain Language dialog appears.



3. In the Name text box, enter the name of the new language.
   If translating the name into another language is required, choose the Translate button.
4. In the Natural code text box, enter the Natural code number for that language.
   As a result, a message box appears.
5. Choose the Yes button to save your changes.
   The "Save object as" dialog appears.

Modifying, Displaying or Deleting a Language

To modify or display a language

1. Choose the Language icon.
2. From the Browse Languages dialog, select the language and choose the Modify an Object, or Display an Object button.
   The Maintain Language dialog appears.
   If you have chosen to display the object but want to modify the object, choose the Modify an Object button and make the modifications you want.
   If you have modified the data, a message box appears. Choose the Yes button to save your changes, No to quit without saving your changes, or Cancel to return to the Maintain Language dialog.

To delete a language

1. Choose the Language icon.
2. From the Browse Languages dialog, select the language and choose the Delete an Object button.
   A message box appears. Select Yes to confirm, or No to cancel the deletion.

Load Log

The load log contains entries for each unload and load transaction. Log data can be displayed but not modified.

Function Overview

Actions

- Browse
- Delete
- Display

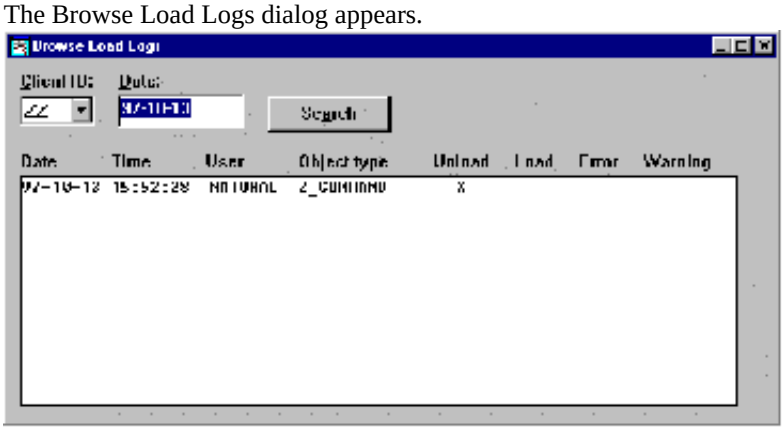
Subdialogs

- Statistics

Browsing Through Load Logs

To browse through current load logs

- Choose the Load Log icon.
  The Browse Load Logs dialog appears.



  The Date list box contains all load logs which occurred on and after the date in the Date text box. For each load log, the date and time the load occurred, the User who performed the load, object type processed, whether the data was unloaded or loaded, whether an error occurred and any warnings issued are displayed.
  If an error occurs during a load or unload, it is logged in the error log.

To search for log

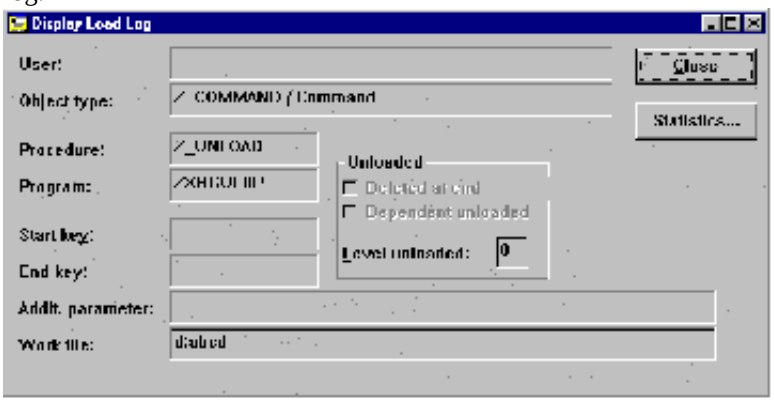
1. In the Client ID drop-down list box, select the client.
2. In the Date text box, enter the start date and choose the Search button.
   The system scrolls through the Date list box until the logs which occurred on or after the start date appear at the top.

Displaying a Load Log

To display a load log

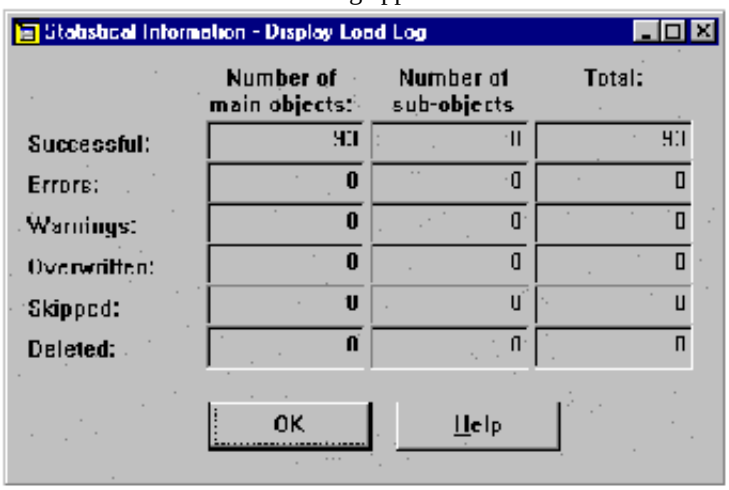
1. From the Browse Load Log dialog, select the log and choose the Display an Object button.
   The Display Load Log dialog appears.
   Note:
   The dialog displayed below pertains to an unload procedure. It is similar to what appears with a load-procedure

log.



User	Name and ID of the user who initiated the load or unload procedure.
Object type	Object type loaded or unloaded.
Procedure	Background procedure used to load or unload the objects. This is defined in the Background Processing dialog.
Program	Program used to perform the background procedure. This is defined in the Background Processing dialog.
Start key	A start value which, with the end key value, determines the objects that are unloaded. For example, if the start key is CA and the end key is M, only objects from CA through M are loaded or unloaded.
End key	An end value which, with the start key value, determines the objects that are loaded or unloaded.
Additional parameter	Additional criteria that is used to determine the objects that are loaded or unloaded.
Work file	PC work file from which the objects are loaded or unloaded.
Delete objects at end	Unload procedure only. Marked if the objects were deleted from the system at the end of the unload procedure.
Dependent objects loaded/unloaded	Marked if objects that are linked (dependent) to the object type are also unloaded. For example, the dependent objects for object type Function Group include users and functions.
Level unloaded	Unload procedure only. Used in conjunction with the "Unload dependent objects" check box. Determines the level in the hierarchy of the dependent objects that are unloaded.
Overwritten	Load procedure only. Marked if previous objects in the system were overwritten with new data.

2. Choose the **Statistics** button.
   The Statistical Information dialog appears.



   The "Number of main objects" column pertains to the object types loaded or unloaded, as specified in the Object Type text box in the Display Load Log dialog.
   The "Number of sub-objects" column pertains to dependent objects loaded or unloaded.
   The Total column displays the total number of objects and dependents.

Successful	Number of objects and dependents unloaded successfully.
Errors	Number of objects and dependents with which errors occurred. If an error occurs during the unload procedure, an error log is created.
Warnings	Number of warnings that occurred.
Overwritten	Load procedure only. Number of objects and dependents overwritten.
Skipped	Load procedure only. Number of objects and dependents not loaded.
Deleted	Unload procedure only. Number of objects and dependents deleted after the unload procedure. In this case, the "Delete objects at end" check box in the "Display Load Log" dialog is marked.

Locks

A lock entry is used to store references to object keys that are currently being accessed by other users.

If a reference to an object key exists, no one else can access it. Thereby the object is logically locked.

Function Overview

Actions

- Browse
- Delete

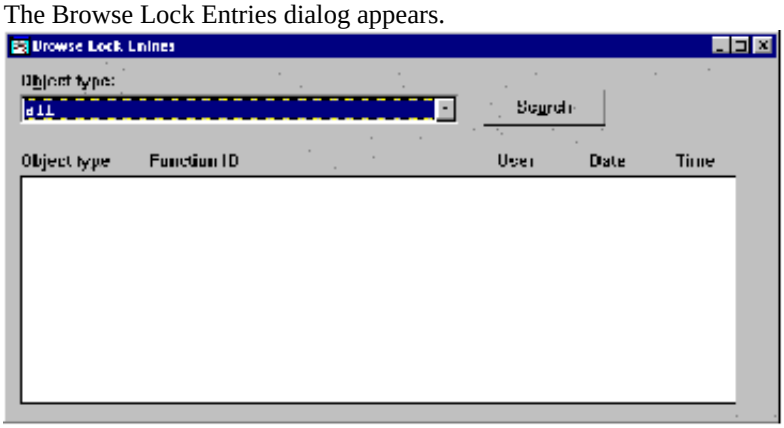
Subdialogs

- None

Browsing Through Locked Logs

To browse through current locks

- Choose the Lock icon.
  The Browse Lock Entries dialog appears.



  The Object type list box contains either all object types or a specific object type that are currently in use. For each locked entry, the object type, function ID, user and, date and time the entry was locked are displayed.

To search for a locked entry

- In the Object type drop-down list box, select the object type and choose the Search button.
  If that object type is currently in use, it is displayed in the Object type list box.

Object Type

The execution of a function consists of the designation of an object type in combination with a command. The object type determines on which data the specified command is to be executed.

Since the user interface can exist in several languages, the individual function components must also be convertible into several languages.

When integrating new functions into the application, you must ensure that the required objects exist. An object type must be added before it can be used in combination with a function.

Function Overview

Actions

- Browse
- Delete
- Display
- Load
- Modify
- New
- Unload

Subdialogs

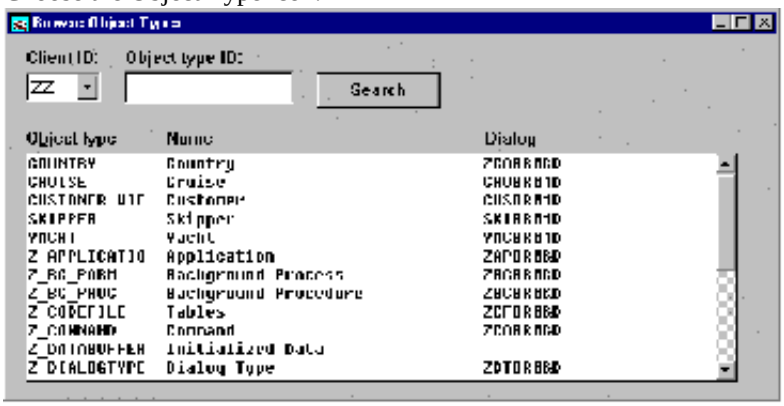
- Translate
  Affected text boxes:
  - Object name
  - DIL text

- Procedure

Browsing Through Object Types

To browse through existing object types

- Choose the Object Type icon.



The Object type list box contains all currently defined object types. For each object type, the object type ID, the name of the object type and the browse dialog ID are displayed.

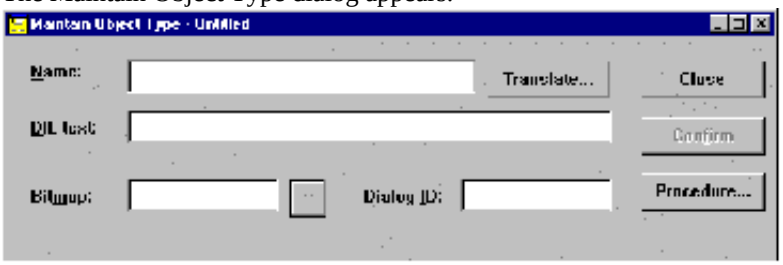
To search for an object type

1. In the Client ID drop-down list box, select the client.
2. In the Object type ID text box, enter the object type's full ID or the first couple of characters and choose the Search button.
   The system scrolls through the Object type list box until that object type appears at the top.

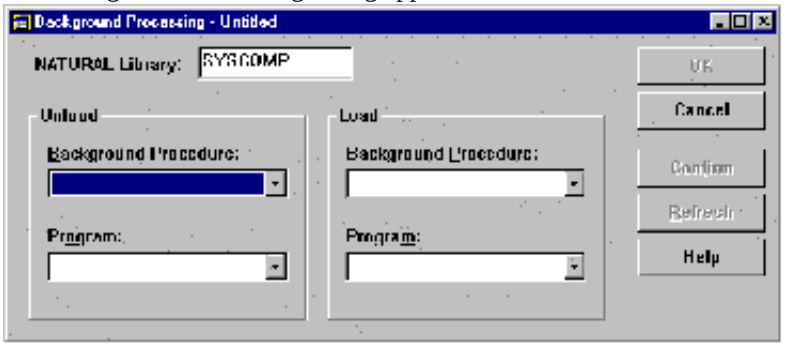
Adding an Object Type

To add a new object type

1. Choose the Object Type icon.
   The Browse Object Types dialog appears.
2. Choose the Create a New Object tool bar button.
   The Maintain Object Type dialog appears.



3. In the Name text box, enter the name of the object.
   When choosing an object name, care should be taken that the object is easy for the end user to recognize.
   If translating the name into another language is required, choose the Translate button.
4. In the DIL Text text box, enter the text to be displayed in the Dynamic Information Line when this object is chosen.
5. In the Bitmap text box, enter the name of the icon designated for this object type.
   It is recommended that you use the predefined bitmap ZOBJTYP.
   You can obtain the name of the bitmap from the Natural bitmap library set in the NATGUI_BMP parameter.
   Do not include the bitmap file name extension ".bmp".
6. Optional - In the Dialog ID text box, enter the ID of the browse dialog for this object.
7. Optional - If you want load and unload data procedures for this object type, choose the Procedure button.
   The Background Processing dialog appears.



8. In the Natural Library text box, enter the name of the library in which the unload or load program is located.
9. In the Load or Unload group box, select a background procedure from the Background Procedure drop-down list box.
   This is a previously defined name for the background procedure.
10. In the Load or Unload group box, select a background program from the Program drop-down list box.
    This is the name of the background program used to perform the background procedure. For further information, see the Natural Frame Gallery documentation.
11. Choose the OK button.
    The Maintain Object Type dialog appears.
    A message box appears.

12. Choose the Yes button to save your changes.
    If you chose the Yes button, the "Save object as" dialog appears.

Modifying, Displaying or Deleting an Object Type

To modify or display an object type

1. Choose the icon.
2. From the Browse Object Types dialog, select the object and choose the Modify an Object, or Display an Object button.
   The Maintain Object Type dialog appears.
   If you have chosen to display the object but really want to modify it, choose the Modify an Object button and make the modifications you want.
   If you have modified the object, a message box appears. Choose the Yes button to save your changes.

To delete an object type

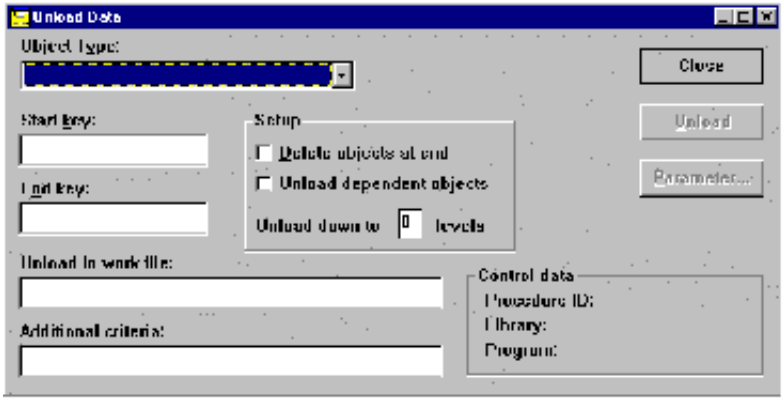
1. Choose the icon.
2. From the Browse Object Types dialog, select the object and choose the Delete an Object button.
   As a result, a message box appears. Select Yes to confirm, or No to cancel the deletion.

Unloading Data

Note:
Do not unload data while users are on the system, as errors will occur.

To unload data

1. Choose the Direct Call button.
   The Direct Call dialog appears.
2. Select object type and the action Unload, and choose the Start button.
   The Unload Data dialog appears.



3. In the Object type drop-down list box, select the object type to be unloaded.
   The Control Data group box is automatically filled, depending upon the object type selected. The information displayed here is taken from the Background Processing dialog for that object type.
4. Optional - In the Start key text box, enter a start value, e.g. CA .
   The start key, together with the end key, determines the objects that are unloaded. For example, if the start key is CA and the end key is M, only objects from CA through M are unloaded.
5. Optional - In the End Key text box, enter an end value.
6. In the "Unload in work file" text box, enter the PC path and file in which the data is to be unloaded.
7. Optional - In the Additional criteria text box, enter additional criteria required to unload the objects.
   This step is relevant only in the case of specialized object types.
8. Optional - From the Setup group box, select the Delete objects at end check box to delete all objects when the procedure successfully ends.

9. Optional - From the Setup group box, select the "Unload dependent objects" check box to unload objects that are linked to the selected object type and in the Unload down to text box, enter to which level (1 through 9) in the hierarchy of the dependent objects should be unloaded.
   The following dependent levels are available:

		Dependents	
Object Type	**1st Level**	**2nd Level**	**3rd Level**
Application	Function Object type Application	Command Object type	
Dialog Type	Command Tool bar		
Function	Command Object type		
Function Group	Function	Command Object type	
Tool Bar	Command Dialog type		
User	Function group	Function	Command Object type

   For example, the dependent objects for object type Function Group includes function, command and object type. If you enter 2 in the Unload down to text box, all three dependents will be unloaded.
   If user parameters are available for the object type, the Parameter button is enabled.

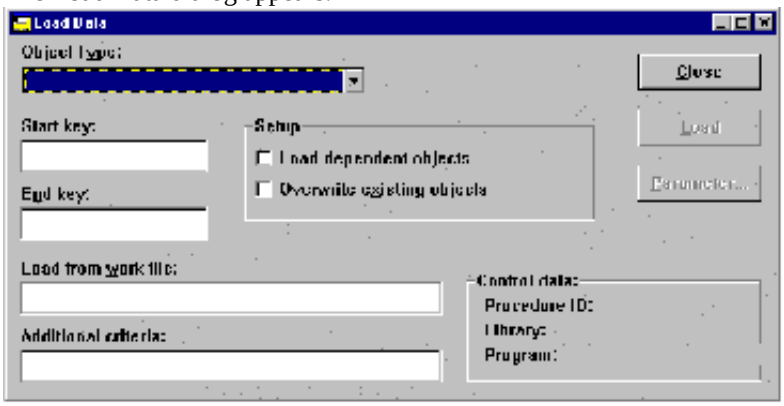
10. Choose the Parameter button and define the values for the user parameters in the resulting dialog.
    All user parameters must be defined.
11. Choose the Unload button.
    When the unload procedure ends successfully, a report of the objects unloaded appears. You press ENTER to page through the report.

Loading Data

Note:
Do not load data while users are on the system, as errors will occur.

To load data

1. Choose the Direct Call tool bar button.
   The Direct Call dialog appears.
2. Select object type and the action Load, and choose the Start button.
   The Load Data dialog appears.



3. In the Object Type drop down list box, select the object type to be loaded.
   The Control Data group box is automatically filled, depending upon the object type selected. The information displayed here is taken from the Background Processing dialog for that object type.
4. Optional - In the Start Key text box, enter a start value, e.g. CA.
   The start key, together with the end key, determines the objects that are loaded. For example, if the start key is CA and the end key is M, only objects from CA through M are loaded.
5. Optional - In the End Key text box, enter an end value.
6. In the "Load from work file" text box, enter the PC file from which the data is to be loaded.
7. Optional - In the Additional Criteria text box, enter additional criteria required to load the objects.
   This step is relevant only in the case of specialized object types.
8. Optional - From the Setup group box, select the "Load dependent objects" check box to load objects that are linked to the selected object type.
   For example, the dependent objects for object type Function Group include users and functions.
9. Optional - From the Setup group box, select the Overwrite existing objects check box to overwrite objects currently in the system with new data.
   If user parameters are available for the object type, the Parameter button is enabled.
10. Choose the Parameter button and define the values for the user parameters in the resulting dialog.
    All user parameters must be defined.
11. Choose the Load button.
    When the load procedure ends successfully, a repor----- t of the objects loaded appears. You press ENTER to page through the report.

Preliminary File

When modifications are made to an object type or object, the modifications are stored in either a preliminary file or in an internal buffer. They are stored in a preliminary file when the Preliminary file option button in the Maintain Function dialog is marked. If this option button is not marked, then the modifications are stored in an internal buffer. Thus the original files are left intact until the modifications are confirmed.

After the modifications are completed, the original files are updated with the contents of the preliminary file, which are then deleted.

Function Overview

Actions

- Browse
- Delete

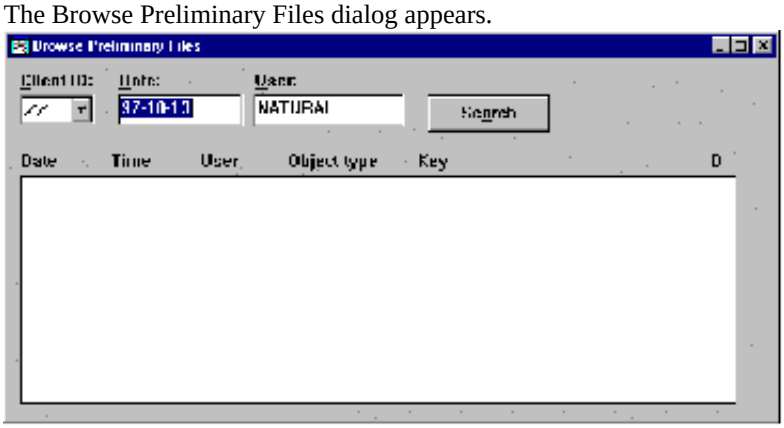
Sub-dialogs

- None

Browsing Through Preliminary Files

To browse through preliminary files

- Choose the Preliminary icon.
  The Browse Preliminary Files dialog appears.



  The Date list box contains all preliminary files. For each file, the date and time the file was created, the user who created the file, object type, function ID, and if the file is marked for deletion are displayed.

To search for a preliminary file

1. In the Client ID drop-down list box, enter the client ID.
2. In the Date text box, enter the start date.
3. In the User text box, enter the user's ID that created the preliminary file.
4. Choose the Search button.
   The preliminary files created by the user on or after the specified date are displayed in the Date list box.

Table

Using the table maintenance system integrated in the application-shell, you can define user-specific tables and then immediately begin to maintain the table data without additional effort.

The table definition supports the definition of simple tables with a maximum of fifty fields and four descriptors that can be freely defined within certain limits.

If the definitions in the field definition are not sufficient, additional validations can be forced with a user program. You can even transform field formats (e.g., field with A10 format into N 7.2 format) using a user program, since the user program is activated in the maintenance of the table content, not in the table definition. The object type *Tables* contains the data for table definition but not the table data itself.

The names of the table fields are language-dependent, i.e. corresponding field names are available for table maintenance after you have selected the user language.

Function Overview

Actions

- Browse
- Delete
- Display
- Modify
- New

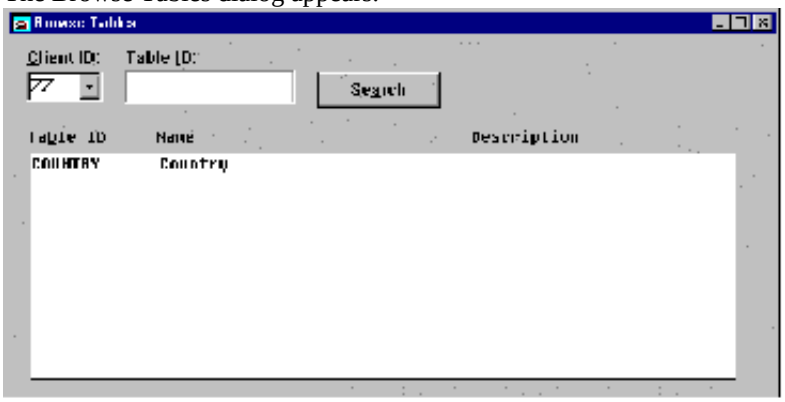
Subdialogs

- New Descriptor
- Parameter
- Translate
  Affected text boxes:
  - Table name
  - Field name

Browsing Through Tables

To browse through the existing tables

1. Choose the Table icon.
   The Browse Tables dialog appears.



   The Table ID list box contains all currently defined tables. For each table, the table ID, name and description are displayed.

To search for a table

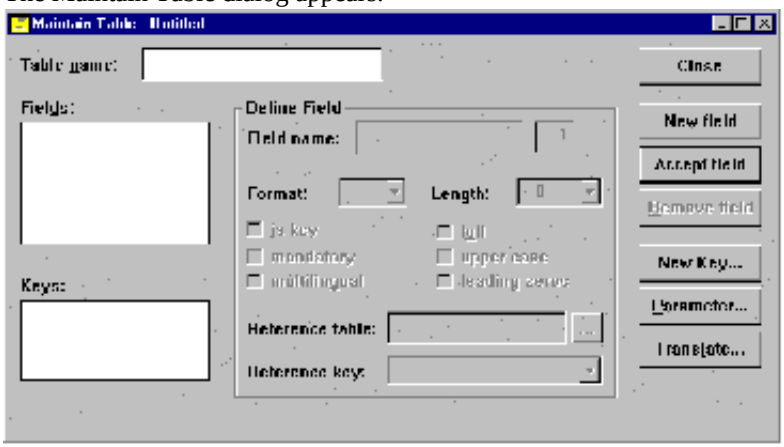
1. In the Client ID drop-down list box, select the client.
2. In the Table ID text box, enter the table's ID and choose the Search button.
   The system scrolls through the Table ID list box until the table appears at the top.

Adding a Table

To add a new table

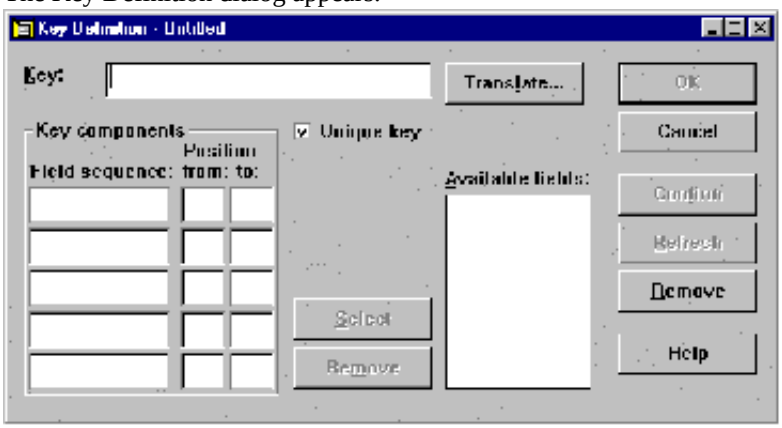
1. Choose the Table icon.
   The Browse Tables dialog appears.

1. Choose the Create a New Object tool bar button.
   The Maintain Table dialog appears.



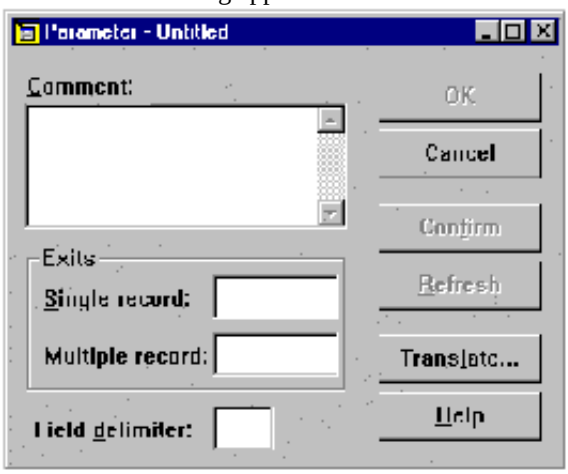
2. In the Table Name text box, enter the name of the table.
3. Choose the New Field button.
   The default values are displayed in the Define Field group box.
   Define the following in the Define Field group box.
4. In the Field Name text box, enter the name of the table field. This field is mandatory.
   If translating the table and field names into another language is required, choose the Translate button.
   In multi-language applications, care must be taken that all table and field names are defined in all necessary languages, since otherwise there is no guarantee that all functions are available in all languages.
5. In the Format list box, select either A (alphanumeric) or N (numeric).
6. In the Length list box, enter the length of the field. This field is mandatory.
   The maximum length for an alphanumeric field is 240 and 27 for a numeric field.
   If the Key check box is selected, then the maximum length for an alphanumeric field is 30.
7. Select the Key check box, if the field is a descriptor.
   At least one field per table must be defined as a key. You can also define a key when you choose the New Key button.
8. Select the Mandatory check box if this table field is required.
9. Select the Multilingual check box if the field data is available in other languages.
10. Select the Full check box if the field must completely filled.
11. Select the Upper case check box if all alphanumeric characters are to be converted to upper case.

12. Select the Leading Zeros check box if numeric key values are to be filled automatically with leading zeros. For example, if you enter the number 534 in a numeric field with the length of 5, the number is converted to 00534.
    Optional - The following two text boxes are used to define a connection to another table with which data can be validated. For example, table *Customer* contains the fields First Name, Last Name, Street and City. Table *Zip Code* contains the fields Zip Code and City, and the key Zip Code. If you define *Zip Code* as the connecting table (i.e. reference table) and Zip Code as the reference key, each time a zip code is entered in the *Customer* table it is verified against the data in the *Zip Code* table.
13. In the Reference Table text box, enter the name of the connecting table,
    or select the Settings button to obtain a list of currently defined tables and select the table from the list.
14. In the Reference Key list box, enter a key from the table (specified in the previous step) which will be used to validate the data.
    You can define up to four non-multilingual keys. They are used for individual access to the table data. At least one key must be defined per table.
15. Choose the Accept Field button.
    The field name appears in the Fields list box and, if marked as a key, it also appears in the Keys list box.
    To delete a previously defined field, choose the Remove button.
16. Choose the New Key button.
    The Key Definition dialog appears.



17. In the Key text box, enter the name of the key.
    If translating the key into another language is required, choose the Translate button.
    In multi-language applications, care must be taken that all keys are defined in all necessary languages.to ensure correct operation.
18. Select the Unique check box if you want to validate that the input value for the key is unique.
19. In the Field Sequence text box, enter a field name from this table.
    You can define up to 5 field names. The values of the fields are then used as the contents of the key.
20. In the "From pos. to pos." text boxes, enter which bytes of the field are required for the key.
    For example, the field Last Name is 30 bytes and if you enter 1 and 8 in the From pos. to pos. text box, the key will contain only the first 8 bytes of each last name.

21. Choose the OK button.
    The Parameter dialog appears.



22. Optional - In the Comments list box, enter information concerning the code file.
    In the Exits group box, you can define up to two user exits which can be written to perform special functions.
23. Optional - In the Single record text box, enter the user exit name which pertains to a specific field.
24. Optional - In the Multiple record text box, enter the user exit name which pertains to all fields defined to this code file.
25. In the Field Delimiter text box, enter a character to be used to separate the field data in the database.
    For example, if the character # is used, the field data would be stored as such: First Name#Last Name#Street#Zip Code#City.
    It is highly recommended that you use a character that will not be used in the field data. As a default, the # symbol is used.
26. Optional - Choose the Translate button.
    The Translate - Maintain Code File dialog appears.
27. Choose the OK button.
    A message box appears.
28. Choose the Yes button to save the addition.
    The "Save object as" dialog appears.

Modifying, Displaying or Deleting a Table

To modify or display a table

1. Choose the Table Maintenance icon.
2. From the Browse Tables dialog, select the table and choose the Modify an Object, or Display an Object button.
   The Maintain Table dialog appears.
   If you have chosen to display the object but want to modify the object, choose the Modify an Object button and make the modifications you want.
   If you have modified the data, a message box appears. Choose the Yes button to save your changes.

To delete a table

1. Choose the Table Maintenance icon.
2. From the Browse Tables dialog, select the table and choose the Delete an Object button.
   A message box appears. Select Yes to confirm, or No to cancel the deletion.

Tool Bar

As a standard, a tool bar is defined for each type of main dialog. Tool bars are not defined for subdialogs. It is recommended that you first add the dialog type without specifying a tool bar, then add the tool bar and, finally, modify the dialog to define the newly created tool bar.

Function Overview

Actions

- Browse
- Delete
- Display
- Modify
- New

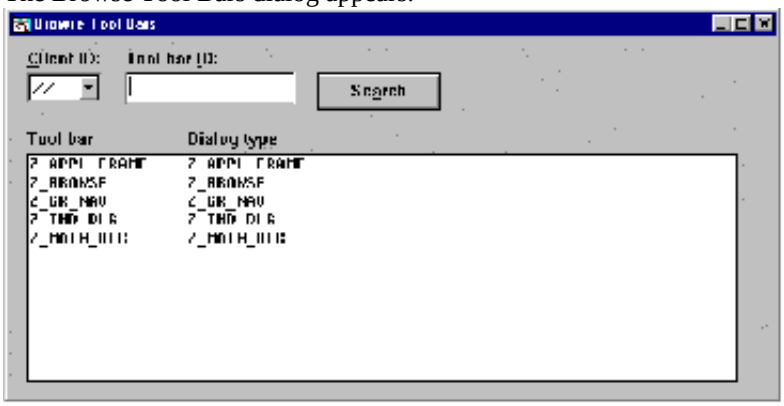
Subdialogs

- None

Browsing Through Tool Bars

To browse through existing tool bars

- Choose the Tool Bar icon.
  The Browse Tool Bars dialog appears.



  The Tool bar list box contains all currently defined tool bars. For each tool bar, the tool bar ID and the corresponding dialog ID are displayed.

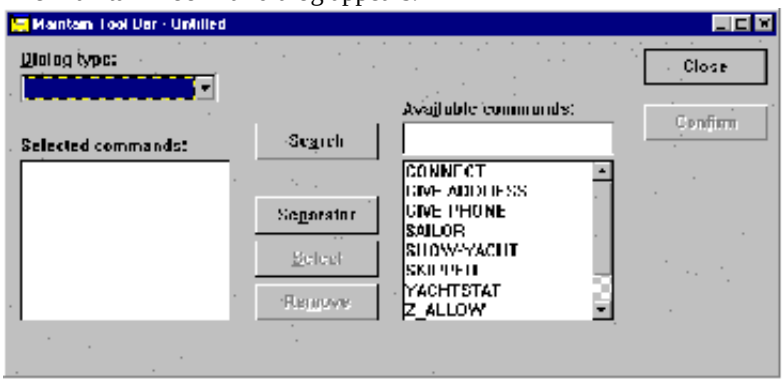
To search for a tool bar

1. In the Client ID drop-down list box, select the client.
2. In the Tool bar ID text box, enter the tool bar's full ID or the first couple of characters and choose the Search button.
   The system scrolls through the Tool bar list box until that tool bar appears at the top.

Adding a Tool Bar

To add a new tool bar

1. Choose the Tool Bar icon.
   The Browse Tool Bars dialog appears.
2. Choose the Create a New Object tool bar button.
   The Maintain Tool Bar dialog appears.



3. In the Dialog type drop-down list box, select the dialog type with which this tool bar will be used.
4. From the Available commands combo box, select the commands which will be available in the tool bar and choose the Select button.
   The commands you select appear in the Selected Command list box.
   If you select a command you do not want, select the command from the Selected commands list box, and choose the Remove button. The command is then removed from the list box.
5. Optional - Select a command from the Selected Commands list box and choose the Separator button.
   As a result, a line appears above the selected command and when the tool bar is displayed, the button for this command is displayed separately from the other buttons (i.e. it is not displayed directly next to another button).
   As a result, the "Save object as" dialog appears.

Modifying, Displaying or Deleting a Tool Bar

To modify or display a tool bar

1. Choose the Tool Bar icon.
2. From the Browse Tool Bars dialog, select the tool bar and choose the Modify an Object, or Display an Object button.
   As a result, the Maintain Tool Bar dialog appears.
   If you have chosen to display the tool bar but really want to modify it, choose the Modify an Object button and make the modifications you want.
   If you have modified the tool bar, a message box appears. Choose the Yes button to save your changes, No to quit without saving your changes, or Cancel to return to the Maintain Tool Bar dialog.

To delete a tool bar

1. Choose the Tool Bar icon.
2. From the Browse Tool Bars dialog, select the tool bar and choose the Delete an Object button.
   As a result, a message box appears. Select Yes to confirm, or No to cancel the deletion.

User

If access security is implemented, you must define the users in the system so that they can work in the application. This requires that the user ID must be entered in the object *User*.

When a user is defined in this way, the user has access to all functions that are not subject to access security.

Function Overview

Actions

- Browse
- Delete
- Display
- Modify
- New

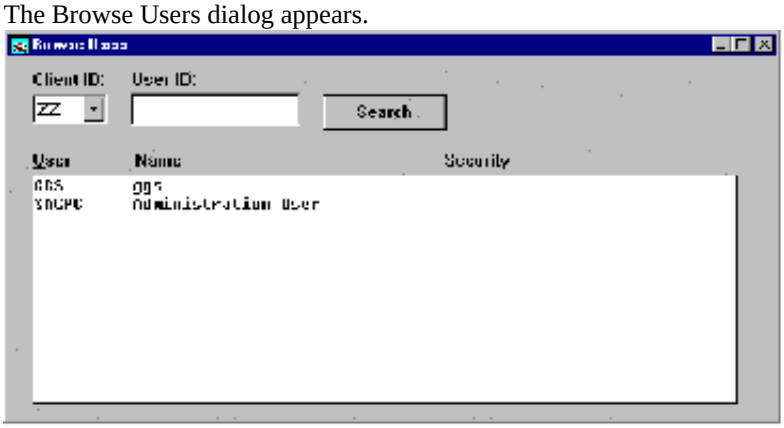
Subdialogs

- None

Browsing Through a List of Users

To browse for a user

- Choose the User icon.
  The Browse Users dialog appears.



  The User list box contains all currently defined users. For each user, the user ID, full name and whether the user has access security are displayed.

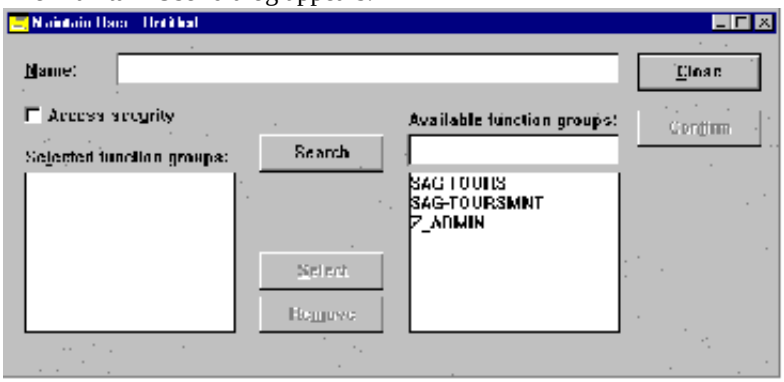
To search for a user

1. In the Client ID drop-down list box, select the client.
2. In the User ID text box, enter the user's full ID or the first couple of characters and choose the Search button.
   The system scrolls through the User list box until that user appears at the top.

Adding a User

To add a user

1. Choose the User icon.
   The Browse Users dialog appears.
2. Choose the Create a New Object tool bar button.
   The Maintain User dialog appears.



3. In the Name text box, enter the user’s full name.
   Authorization is checked through the user ID under which the user is added to the system. The user’s name is purely for information.
4. Select the Access protection check box if you want the user to only access the functions in the selected function groups.
   If you do not select this check box, the user can access all functions (with and without access protection).
   If your application does not have access security, this check box is ignored.
5. From the Available function groups list box, select the ID for the function group you want to allow the user to access and choose the Select button.
   The function group ID is displayed in the Selected function group list box.
6. If you want to revoke access to a function group, select the function group ID from the Selected function group list box and choose the Remove button.
   A message box appears.
7. Choose the Yes button to save your changes.
   The "Save object as" dialog appears.

Modifying, Displaying or Deleting a User

To modify or display a user

1. Choose the User icon.
2. From the Browse Users dialog, select the user and choose the Modify an Object, or Display an Object button.
   The Maintain User dialog appears.
   If you have chosen to display the object but want to modify the object, choose the Modify an Object button and make the modifications you want.
   If you have modified the data, a message box appears. Choose the Yes button to save your changes.

To delete a user

1. Choose the User icon.
2. From the Browse Users dialog, select the user and choose the Delete an Object button.
   A message box appears.
3. Select Yes to confirm, or No to cancel the deletion.

