

Configuration Files

The base directory for FNAT/FUSER is contained in the following configuration files:

- Local Configuration File - Natural.INI
- Global Configuration File - NATCONF.CFG

The local configuration file is located in the appropriate "etc" directory for each installed Natural version.

If you run a client/server environment and multiple clients access the same database and/or system file, only one global configuration file with one DBID and FNR can be available to these clients, which means that you can only have one global configuration file per client/server environment.



These configuration files should only be modified by an administrator. They contain plain ASCII text and should only be changed with the Natural Configuration Utility.

Local Configuration File - Natural.INI

The local configuration file contains Buffer Pool Assignments and Installation Assignments.

- Buffer Pool Assignments
- Installation Assignments

Buffer Pool Assignments

| Parameter | Function |
|--------------|----------------------|
| Buffer Pools | Buffer Pool Settings |

If you select "Buffer Pool Assignments", a dialog with a list of existing buffer pool assignments is displayed. You can specify the name (BPID), the size (BPSIZE) and the number of directory entries (BPNLE) of the buffer pool. You can also specify the maximum number of users that can have simultaneous access to the Buffer Pool (MAXUSER).

For further information on the profile parameters BPID, BPSIZE, BPNLE, MAXUSER (to be set in the Natural Configuration Utility), see also the buffer pool.

Installation Assignments

If you select "Installation Assignments", a dialog is displayed in which you can specify the following items:

| Parameter | Function |
|---------------------------|---|
| Profile Path | Path to Profile Parameters - The location of the Natural parameter files. |
| Global Config File | Global Configuration File - The name and path of the global configuration file (default name is NATCONF.CFG). |
| Error Path | Natural Error File Directory - The location of the Natural error messages. |
| Conversion Table | Natural I/O Conversion Table - The name of the file which contains the character translation tables used with the internal character set "ISO-8859-1". By default, this file is called NATCONV.INI. |
| TMP Path | Natural TMP Directory - The location of Natural temporary output. Instead of defining a single path name in the NATPARM utility (for example: c:\Natural\temp), you can define an environment variable (for example: %usertemp%=mytempdir) and embed this variable in the path name (for example: c:/Natural/%usertemp%). The complete path name will be expanded at run time, using the currently valid environment variable (for example: c:/Natural/mytempdir\). |
| Documentation Base | Natural Online Help File Directory - The location of the Natural online help file. This is the default path. Alternatively you can define a path to the Natural documentation set (for example in a network environment). URLs are possible as paths also. |

Global Configuration File - NATCONF.CFG

The global configuration file contains DBMS Assignments, Dictionary Server Assignments, Assignments of Printer Profiles, and System File Assignments.

- DBMS Assignments
- Dictionary Server Assignments
- Printer Profiles
- System File Assignments

DBMS Assignments

| Parameter | Function |
|---------------------------------|-------------------------------|
| DBMS Assignments | DBMS Assignments |
| SQL Date/Time Conversion | SQL DBMS Date/Time Conversion |
| Multifetch Disabling | Multifetch Disabling |

If you select "DBMS Assignments", a dialog is displayed in which you can specify the DBID, DBMS Type and DBMS Parameter.

DBID and DBMS Type

Since the types of all databases which are to be accessed by Natural must be defined in the global configuration file, specify one of the following values for each database ID:

| Value | Database Type |
|------------|---|
| ADA | Adabas database server (this is the default). |
| ADX | Adabas single-user database (for PCs only). |
| SQL | Any SQL database that can be accessed using Entire Access, Software AG's common interface to various SQL database systems. Note that in the user interface of the Natural Configuration utility the term OSQ is replaced with the term SQL . |

Note:

You cannot define a database type for a DBID which has already been assigned to a system file; if you do so, an error message will be issued at Natural startup, indicating an inconsistency in the system file setting and an error when reading the database assignments.

A list of existing DBMS assignments is displayed in a list box.

DBMS Parameter

This field applies to SQL-type databases only.

In this field, you establish the connection to the database system that you want to work with. In addition, you can specify logon parameters specific to the database type.

See Natural and Entire Access for further information on how to access SQL-type database systems.

SQL Date/Time Conversion

As Natural has only one specific time format, you must decide how this format should be interpreted in the context of SQL database access. There are several possibilities, however, there is only one possibility per SQL-type DBID which can be specified here.

If you select "SQL Date/Time Conversion", a dialog is displayed in which you can specify the conversion masks.

Mask

The value specifies the configuration for Entire Access. It also specifies the format used to retrieve SQL DATE/TIME/DATETIME information into Natural format A fields. The mask should match the RDBMS-specific configuration for the DATE, TIME, or DATETIME character string representation.

Date

This mask (usually a sub-string of the Mask value) specifies the character string representation into which the Natural format D fields are converted during update or retrieval of SQL DATE columns.

Time

This mask (usually a sub-string of the Mask value) specifies the character string representation into which the Natural format T fields are converted during update or retrieval of SQL TIME or DATETIME columns.

Remark

You can enter your remarks here, for example, to document how the SQL DATE/TIME character string representation is configured on the database site.

See also the Entire Access documentation, Using Natural with Entire Access, Date/Time Conversion.

Multi Fetch Disabling

Natural uses Adabas command level multi fetch for Adabas L1, L2, L3 and L9 calls to minimize the number of database calls. For performance reasons it would be useful to disable multi fetch on an Adabas file and command level basis. This can be done with the Multi Fetch option. Before a multi fetch call is issued, Natural checks if multi fetch is disabled for the actual dbid/file/command code combination.

Dictionary Server Assignments

| Parameter | Function |
|--------------------|--------------------|
| Dictionary Servers | Dictionary Servers |

With the "Dictionary Server Assignments" function you can assign three so-called dictionary servers to one common logical server name.

With dictionary servers, you can access remote DDMs, free rules and automatic rules maintained in Predict once you have access to Predict on a mainframe or UNIX host. The three dictionary servers are:

| | |
|----------------------------------|--|
| The DDM Server | Server for remote DDM access. |
| The Free Rule Server | Server for remote access to Predict free rules. |
| The Automatic Rule Server | Server for remote access to Predict automatic rules. |

Since the servers to be assigned can be located on different nodes, both server and node name must be specified.

All dictionary servers must previously be defined by using the Natural RPC facility. The RPC parameter MAXBUFF has a maximum value of 16 KB. The actual maximum buffer length that can be processed by the transport layer may be less than 32 KB. A value of 30 KB is recommended due to broker limitations.

Note:

Currently, a server's node name must start with "FBKR" if you want it to be addressed using a central mainframe broker.

Multiple logical server names can be defined; server assignments can be modified or deleted. A list of existing assignments can be displayed in the "Logical Dictionary Server Name" combo box.

Specify the dictionary servers you want to use by setting the "Remote Access" parameter USEDIC to the corresponding logical server name; if USEDIC is set to blank, remote DDM access will not be possible.

Note:

If you want to use this feature, Predict Version 3.3 or above must be installed; with PredictT versions prior to 3.3, the Predict update tape PD2302 is required.

Printer Profiles

| Parameter | Function |
|-----------------------------|----------------------|
| Printer Profiles | Printer Profiles |
| TTY Printer Profiles | TTY Printer Profiles |
| GUI Printer Profiles | GUI Printer Profiles |

This function is used to define, modify or delete printer profiles.

Printer profiles are used for printing additional reports, for hardcopies and for batch output generation. They recognize particular Natural field attributes and insert the appropriate control sequences (see below) as defined in the profile.

With the ability to translate Natural field attributes into escape sequences, you can control your printer in various ways by using the right profile name, and you can use the print features of a given device by using simple attributes in Natural programs.

Each profile can be assigned to a Natural report number either statically by using the "Report Assignments" function of the Natural Configuration Utility, or dynamically by using the DEFINE PRINTER statement within a Natural program.

There are two different kinds of printer profiles: TTY-Type Profiles and GUI-Type Profiles.

Use TTY-type profiles if you wish to have full control over the command sequences sent to the printer; use GUI-type profiles if you wish them to be controlled by an installed printer driver.

TTY-Type Profiles

If you select the TTY option, a dialog is displayed in which you can specify a profile name, leading and/or trailing commands (printer control sequences) to be triggered at job, page or field level and an external character set name.

Trigger:

A triggering event controls the level on which specified printer control sequences are to be applied. Available triggering events are JOB, PAGE, AD and CD:

- Specify JOB if you want your control sequences to apply to an entire print job; the specified control sequences will represent the job header and/or job trailer respectively.
- Specify PAGE if you want the control sequences to apply to each physical output page; the specified control sequences will then represent the page headers and/or page trailers respectively.
- Specify one of the Natural session parameters AD or CD along with appropriate field attributes if you want the control sequences to be applied at field level only; any field in a Natural program with corresponding attributes will then cause these control sequences to take effect.
See the Reference documentation for details on these session parameters.

Printer Control Sequences:

For each control sequence, a window appears, in which you can specify the control characters in either hexadecimal or alphanumeric format.

- The leading control sequence is inserted immediately before the triggering event (for example, to define a job header or to set attributes for field representation).
- The trailing control sequence is inserted immediately after the triggering event (for example, to define a job trailer or to reset attributes previously set).

Example:

```
Alphanumeric specification:  
Hexadecimal specification: ^1b(s1P ^1b^28^73^31^50
```

Note:

The escape and the blank character must always be specified in hexadecimal format.

External Character Set:

A character set maps characters to underlying hexadecimal byte representations. An external character set must be defined if, for example, a printer's character set is different from the (internal) character set used by Natural. To be able to use the printer with the (external) character set, you have to define a translation table. To do that, edit the NATCONF.INI local configuration file and add the following section to the already existing translation tables:

```
[ISO8859_1 -> mycharset]
```

where *mycharset* is the name you enter in the External Character Set text field.

GUI-Type Profiles

If you select the GUI option, a dialog is displayed in which you can specify:

| | |
|-----------------------|---|
| Profile Name | The name of the printer profile. A list of existing GUI-type printer profiles is displayed in this combo box. |
| Logical Device | The logical device name (LPT1 to LPT31). The specified logical device name must have been assigned to an existing physical device (by using the Natural Configuration Utility). |
| Fonts | The fonts to be used. Fonts are always associated with a particular representation attribute (AD=) which can be selected in the "Attribute" combo box. Up to six attributes are available. The fonts to be associated with these attributes are displayed for selection by choosing the "Set" button. Depending on whether you have checked the "Fixed Fonts Only" box, either only fixed fonts or all fonts (fixed and proportional ones) are displayed. You can now either set (that is, assign) a particular font to the selected attribute or modify an already existing font assignment. With the "Remove" button you can delete an existing assignment. By choosing the "Extra Leading" button you can specify (in points) an extra vertical line spacing in addition to the default line spacing. |
| Text Color | The color to be used. You can either leave the color setting unspecified (whereupon a default setting is used), ignore any color settings (that is, print everything in black), or retain any color settings in your Natural program (as specified by using the CD session parameter). |
| Margins | The page margins. You can specify (in points) an extra top, bottom, left, and/or right page margin relative to the top left-hand corner of the printable region. |

System File Assignments

| Parameter | Function |
|-------------------------|-------------------------|
| System File Assignments | System File Assignments |

For each Natural system file, a database ID (DBID) and a file number (FNR) is specified in the Natural parameter file NATPARM. To ascertain the location of each system file in the structure of directories, you use the "System File Assignment" function to assign a path name to the DBID/FNR combination. A list of existing assignments is displayed in a list box.

The path name must be a valid directory path, indicating the physical path to the location of the system files on the disk.

Example:

System file specifications in NATPARM:

```
FNAT: DBID=098,FNR=099 FUSER: DBID=042,FNR=043
```

| The path assignments in NATCONF.CFG | represent the following directory structure: |
|---|--|
| DBID: 098 FNR: 099 Path: c:\sag\natapps\db9899 | c:\sag\natapps\db9899 (for FNAT) - SYSLIB |
| DBID: 042 FNR: 043 Path: c:\sag\natapps\db4243 | c:\sag\natapps\db4243 (for FUSER) - SYSTEM |