Profile Parameters

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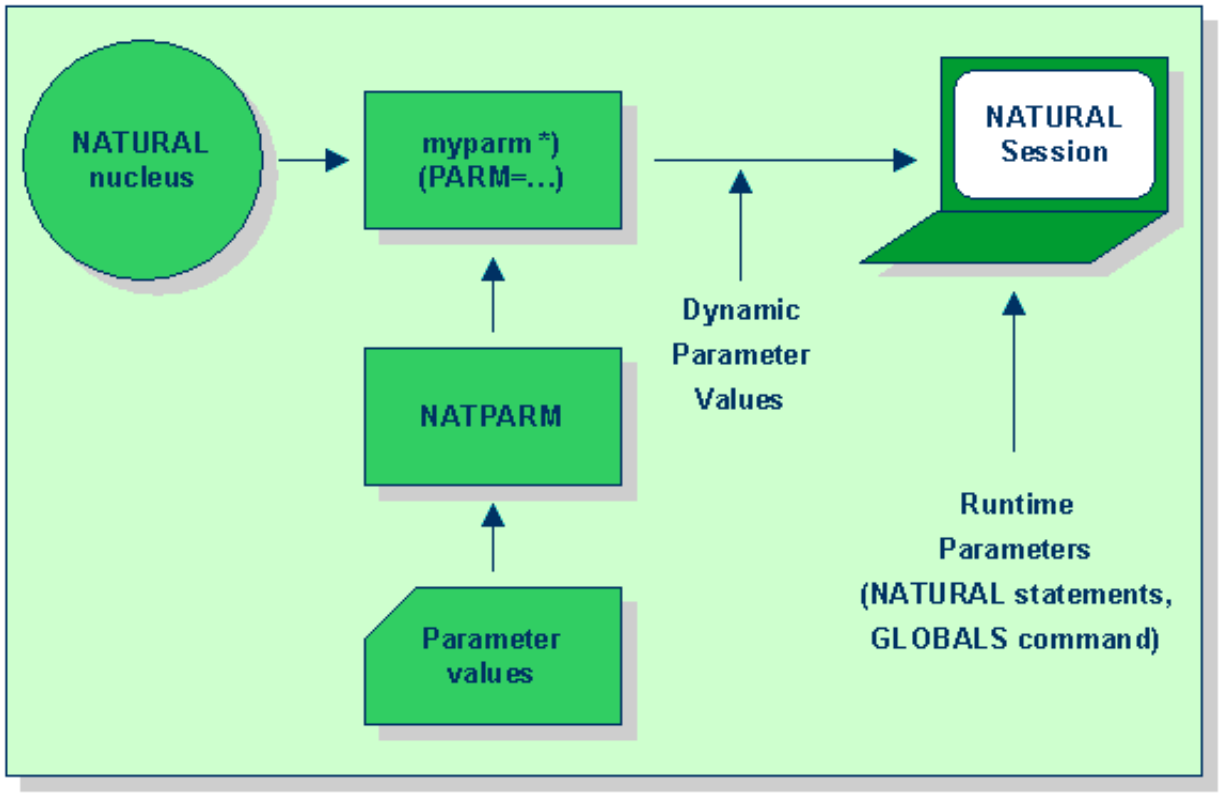
See also alphabetic list of Profile Parameters

General Information

The Natural profile parameters define various characteristics of the Natural environment. The values for these parameters are taken from the following three sources:

1. Runtime assignment of session parameters using the Natural SET GLOBALS statement or GLOBALS system command (highest priority).
2. Dynamic assignments which are valid for the current Natural session. These are made by specifying individual parameters and/or an alternative parameter file when starting Natural.
3. Static assignments, which are made by parameters specified in the Natural parameter file NATPARM (lowest priority).



***** The file "myparm" represents an alternative user-defined parameter file, that overrides the settings in NATPARM.

Creating Parameter Files

By default, the parameter specifications in the parameter file NATPARM are used to determine the characteristics of your Natural environment. Initially, the NATPARM parameter file contains the default values as supplied by Software AG.

If you wish to use Natural with parameter values other than the system defaults, you use the NATPARM utility. With this utility, you can modify the default parameter file NATPARM and/or create your own parameter files.

Modifying NATPARM Parameters

Most parameters can be set by all users. Some parameters, however, can only be set by users who are authorized to do so. This authorization is granted by entering the user as "Natural Administrator" under Administrator Assignments in the Configuration section of the Natural Parameter Setting menu:

- Users who are Natural Administrators can view and set *all* parameters.
- Users who are not Natural Administrators can only view and set some parameters.

The following parameters can only be set by Natural Administrators (this is also indicated in the description of the individual parameters later in this section):

BPSFI	DD	ETID	NC	SD	TD
CDYNAM	DYNPARM	LC	OPRB	SHELL	USER
CM	ESCAPE	LSTEP	RECAT	SSIZE	USIZE
DBUPD	ET	MAINPR	ROSY	SYNERR	XREF

The following screen and printer configuration specifications for the Devices parameter group can also only be set by Natural Administrators:

- logical device name
- physical device name
- line size
- page size
- maxpage

NATPARM Utility

The NATPARM utility is used to create and modify parameter files.

To invoke the NATPARM utility, enter "NAT51PARM" at the system prompt. A menu is displayed with the name of the parameter file currently active or to be edited in the top right-hand corner of the screen.

Note:
Parameter files are upward-compatible, but not downward-compatible. Once you have created a parameter file in a higher version of the NATPARM utility and you try to read it with a lower version, an error will be displayed. To be able to read the file, export the file to the higher version and then import this file to the lower version of the NATPARM utility.

The menu provides the following options:

Option	Use
File	To maintain parameter files; see below.
Edit	To set the parameters of the current parameter file; see Profile Parameters - Overview.
Configuration	To change the Natural local and global configuration files, which are described in the section Configuration Files.
Search	To access a specific profile parameter directly, without having to use the Edit option; see Search.

File

When you select File, a selection list containing the following functions is displayed:

Function	Explanation
New	Opens a new, unnamed parameter module and sets the parameters to default values.
Open	Selects a parameter file from a list for subsequent editing.
Save	Saves all parameters in the current parameter file.
Save As	Saves all parameters under a different parameter-file name.
Export	Generates a text file showing the current values of the active parameter file. In text file form, you can transfer a parameter file to another hardware platform, where you have to generate a binary file from the text file to make the parameter file usable by Natural. This generation is done with the Import function (see below). The text file must be stored as "*parameter-file*.LST" (in any directory).
Import	Generates a binary parameter file from a parameter file generated as text file by the Export function (see above). The generated binary file must then be saved with the Save function (see above).
Delete	Deletes an existing parameter file. When you invoke this function, a list of parameter files is displayed, from which you select the file to be deleted.
Exit	This function is used to leave the NATPARM utility.

Search

When you select Search, a window appears that gives you the choice to directly find a Natural profile parameter by entering its name in the Search Parameter input field.

If you enter a qualified parameter name, you are taken directly to the corresponding window within the Edit option. If you use asterisk notation (*), a list with all existing profile parameters is displayed for selection.

For details on the Edit option and for further information on the individual profile parameters, see Profile Parameters - Overview.

Changing Parameter Settings

To change parameter settings, proceed as follows:

1. Use the Open function to select the desired parameter file.
2. Use the Edit or Search option to modify the parameters of the selected parameter file as necessary.
3. Use the Save or the "Save As" function to save your modifications.

The alternative parameter file can be activated by invoking the command:

natural parm=*parameter-file*

Performing NATPARM Functions from the Operating System Prompt

The following NATPARM functions can also be performed directly from the operating system prompt:

- exit
- import=
- export=
- parm=
- save
- save=

Multiple functions can be specified one after the other (see the examples below).

Examples:

nat51parm parm=*parameter-file*

With this command, you invoke the NATPARM utility and at the same time perform the Open function of the NATPARM utility: the specified *parameter-file* is selected and then is available for editing in the NATPARM utility.

nat51parm parm=*parameter-file* save=*new-parameter-file-name*

With this command, you invoke the NATPARM utility and at the same time perform the Open and Save functions of the NATPARM utility: the specified *parameter-file* is selected and saved under *new-parameter-file-name*.

nat51parm import=*parameter-file* save

With this command, you invoke the NATPARM utility and at the same time perform the Import and Save functions of the NATPARM utility: the specified *parameter-file* is imported and saved.

Profile Parameters - Overview

The individual parameters are divided into groups according to their functions.

If you select the "Edit" option of the "Natural Parameter Setting" menu, a list of the following parameter groups is displayed:

The following sections provide an overview of the parameters contained in the individual groups.

Adabas Parameters

If Natural is used with Adabas, the following parameters should be reviewed and, if necessary, the default values should be adjusted to meet your specific requirements:

Parameter	Function
ET	Execution of END / BACKOUT TRANSACTION statements.
ETID	Adabas user identification.
OPRB	Adabas open/close processing.
WH	Record hold processing.

Batch Mode

Parameter	Function
BATCH	Enable Batch Mode Simulation.
BATCHMODE	Enable Real Batch Mode.
BMBLANK	Display Trailing Blanks.
BMCONTROL	Display Control Characters.
BMFRAME	Frame Characters.
BMSIM	Similar Output.
BMTIME	Display Process Time.
BMTITLE	Display Window Title.
BMVERSION	Display Natural Version.
CC	Enable Error Processing.
CMOBJIN	Input Data Channel.
CMPRINT	Output Channel.
CMPRTnn	Output Channel.
CMSYNIN	Input Commands Channel.
ECHO	Display Input Data.
ENDMSG	Session End Message.
NATLOG	Natural Log File.

Buffer Sizes

Natural uses several buffer areas for the storage of programs and data. You may need to adjust their sizes in order to achieve maximum buffer efficiency.

Parameter	Function
DSLM	Data size limitation.
EDTBPSIZE	SAG Editor Bufferpool Size.
EDTLFILES	SAG Editor Logical Files.
SORTSZE	Size of sort buffer area.
SSIZE	Source area size.
USIZE	Size of user buffer area.

Character Assignments

The following parameters are used to change default character assignments:

Parameter	Function
CF	Control character for terminal commands.
CLEAR	Processing of CLEAR key at runtime.
DC	Character to be used as decimal point.
FC	Filler character for maps generated with an INPUT statement.
HI	Character to invoke field- or map-related help.
IA	Input assign character.
ID	Input delimiter character.

Once a character has been defined to replace a default character, this character cannot be used as data.

Compiler Options

The following parameters are used to set options for the Natural compiler:

Parameter	Function
DBSHORT	Interpretation of database short names.
GFID	Generation of global format IDs.
V22COMP	Natural Version 2.2 compatibility option.

Database Management System

The following parameters are used to assign database management system settings:

Parameter	Function
ETDB	Database for transaction data.
LFILE	Dynamic specification of a logical file.
LFILMAX	Maximum number of logical files.
TF	Translation of file number.
UDB	User database ID.
XADB	XA databases.

DCOM Support

The following parameters are used to provide DCOM support:

Parameter	Function
ACTPOLICY	Activation policy.
AUTOREGISTER	Automatic update of registry.
COMSERVERID	Server name.

Devices

The "Devices" parameter group is used to modify your screen and printer configurations as well as report assignments.

Device Parameter Assignments

- With the "Dev. Para. Ass" function (logical device VIDEO, LPT1 to LPT31), you can specify line size, page size and maximum number of pages for your video output device and for your printers.
- In addition, you can specify a physical device. "Physical Dev." denotes the name of any program which reads from standard input (STDIN/SYS$INPUT), for example the standard print command of your printer spooler with all options:
  UNIX System V: **lp <options>**
  BSD-UNIX: **lpr <options>**
  Line size, page size and maximum page number should be compatible with your hardware printer assignments.

Report Assignments

With the "Report Assignments" function, you can assign a Natural report number (Report 1 to Report 31) to a logical device name. Possible values for the output medium are: VIDEO, LPT1 to LPT31, SOURCE (source area), DUMMY and INFOLINE.

Report Number 0 must be set to VIDEO and is not reassignable; no report number other than 0 can be assigned to VIDEO.

In addition to the logical device name, you can assign a printer profile as defined in the global configuration file. All defined printer profiles are listed for selection in the "Profile" combo box. Select "blank" if you do not want to use any of these profiles.

Entire Transaction Propagator

The following parameters are used in conjunction with Software AG’s Entire Transaction Propagator (ETP).

Parameter	Function
ETPDB	Database list for Entire Transaction Propagator.
ETPSIZE	Size of buffer for Entire Transaction Propagator.

Environment Assignments

The following parameters are used to adjust Natural environment variables:

Parameter	Function
EDITOR	Other program editor.
EDTRB	Program editor ring buffer.
LSTEP	Natural steplibs.
SHELL	Shell exit from Natural main menu.
USER	User ID.

Error Handling

The following parameters are used to control error handling within Natural.

Parameter	Function
IKEY	Error processing for PA/PF keys.
MSGSF	Display system error messages in full.
SA	Sound terminal alarm.
SNAT	Sound bell in the case of a syntax error.

Function Keys

The following parameter is used to assign values to PA, PF and CLEAR keys:

Parameter	Function
KEY	Value assignments to PA, PF and CLEAR keys.

Limits

The following parameters are used to prevent a single program from consuming an excessive amount of internal resources:

Parameter	Function
LE	Limit for error processing.
LT	Processing loop limit.
MADIO	Maximum number of DBMS calls.
MAXCL	Maximum number of program calls.
SD	System time delay.

Miscellaneous

These parameters control various functions within the Natural environment.

Parameter	Function
BPSFI	Search first in buffer pool.
CM	Command mode allowed.
CO	Compiler output.
DBUPD	Database updating.
DD	Day differential.
DU	Dump generation.
DYNPARM	Dynamic parameters.
ESCAPE	Enable %%.
FCDP	Filler character for dynamically protected input fields.
FS	Default format/length setting for user-defined variables.
IM	Default input mode.
KC	Keyword checking.
NC	Control use of Natural system commands.
NENTRY	Entry of numeric fields.
OPF	Overwriting of protected fields by helproutines.
PC	Personal computer support.
PD	Size of page dataset.
RECAT	Dynamic recataloging.
REINP	Issue internal REINPUT statement for invalid data.
SM	Programming mode (structured or reporting mode).
STACK	Place data on Natural stack.
SYMGEN	Generation of symbol tables.
SYNERR	Control of syntax errors.
TD	Time differential.
TQ	Translation of quotations marks.
ULANG	User language.
XREF	Handling of cross-reference data (only applicable with Predict).
ZD	Zero division.

Program Loading and Deletion

The following parameters are used to control the dynamic loading and deletion of programs:

Parameter	Function
CDYNAM	Dynamic loading of non-Natural programs.
ETA	Program to receive control after error in transaction.
PROGRAM	Program to receive control after Natural termination.
PRGPAR	Data to be passed to the program defined by the parameter PROGRAM.
ROSY	Disable storage of Natural programs.

Remote Debugging

The following parameters are used to allow for remote debugging:

Parameter	Function
RDACTIVE	Activate remote debugger.
RDNODE	Remote debugger node name.
RDPORT	Remote debugger port.

Remote Dictionary Access

The following parameter is used for remote dictionary access:

Parameter	Function
USEDIC	Remote dictionary access.

Remote Procedure Call

The following parameters are used for options in the Natural Remote Procedure Call (RPC):

Parameter	Function
ACIPATT	Node pattern for ACI.
ACIVERS	ACI Version.
AUTORPC	Automated remote execution.
COMPR	Send buffer compression.
CSCPATT	Node pattern for CSCI.
DFS	Default server.
LOGONRQ	Logon required for server request.
MAXBUFF	Request buffer size.
RDS	Remote directory servers.
RPCSIZE	RPC buffer size.
SERVER	Start session as RPC server session.
SRVNAME	Server name.
SRVNODE	Server node.
SRVUSER	Server user ID.
TIMEOUT	Request timeout.
TRACE	RPC trace level.
TRANSP	Transport protocol.
TRYALT	Retry Service on alternate server.

Report Parameters

The following parameters control various attributes of Natural reports:

Parameter	Function
CVMIM	Control variable modified at input.
DTFORM	Date format.
EJ	Page eject control.
LC	Enable lower case.
LS	Line size.
MAINPR	Override default report number.
PM	Print mode.
PS	Page size.
SF	Spacing factor between fields.
ZP	Zero printing.

System Files

The following parameters are used to specify the Natural system files:

Parameter	Function
FDIC	Predict system file.
FNAT	Natural system file for system programs.
FSEC	Natural Security system file.
FUSER	Natural system file for user programs.

System Variables

The following parameters are used to adjust Natural system variables for the start of a Natural session:

Parameter	Function
AUTO	Automatic logon.
INIT-LIB	Startup library.
STARTUP	Startup program.

Work Files

The following parameters can be used to specify work-file settings:

Parameter	Function
WFOPFA	Work file to be opened on first access.
WORK	maximum number of work files.
CMWRKnn	Natural work files.

Year 2000 Support

The following parameters can be used for Year 2000 support:

Parameter	Function
DFOUT	Date format on output.
DFSTACK	Date format on stack.
DFTITLE	Date format in standard titles.
YSLW	Year sliding window.

Dynamic Assignment of Parameter Values

Dynamically assigned parameter values are used to override Natural profile parameter settings, as specified in the default parameter file NATPARM, for the duration of a single Natural session, and/or to select a specific system profile that is to be in effect for the Natural session.

A value can be assigned dynamically to a profile parameter if "Dynamic Specification" is specified as "YES" in the description table of the parameter:

Possible values	
Default value	
Dynamic specification	YES
Specification within session	

The setting of dynamic parameters enables a certain environment to be set up when starting Natural. The values for the dynamic parameters are passed by the operating system to Natural when the session is started. To specify such parameter values, do the following:

- Select the Natural program-item icon, click the right mouse button and choose the "Properties" function. The "Natural Properties" dialog box appears. Choose the "Shortcut" item. You can enter the desired dynamic parameters and their values in the "Target" field after the Natural path.

Examples:

UNIX:
Natural PARM=MYPARM SM=ON DTFORM=I

OpenVMS:
$ NAT51 PARM=MYPARM SM=ON DTFORM=I

OpenVMS example only: "NAT51" is defined in SAG$Root:[Natural]login.com as foreign command for passing parameters to Natural.

The parameter file MYPARM is to be used for the Natural session.

SM and DTFORM are dynamic parameters.

Runtime Assignment of Parameter Values

A value can be assigned to a profile parameter at runtime if "Specification within Session" is specified as "YES" in the description table of the parameter:

Possible values	
Default value	
Dynamic specification	
Specification within session	YES

The parameter keyword and the required value are entered as session parameter following the Natural SET GLOBALS statement or GLOBALS system command.

Examples:

SET GLOBALS SA=ON,IM=D

GLOBALS SA=ON,IM=D

Note:
The SET GLOBALS statement can be used in reporting mode only.