

Assignment of Parameter Values

This document provides information on how values are assigned to profile parameters statically, dynamically and at runtime.

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Sources for Parameter Value Assignment

The values for profile parameters are taken from three sources:

1. Static assignments

Profile parameters specified in the macro NTPRM and other macros of the Natural parameter module (NATPARM). These macros are then assembled and linked with the Natural nucleus. All parameters not specified are assigned their default values.

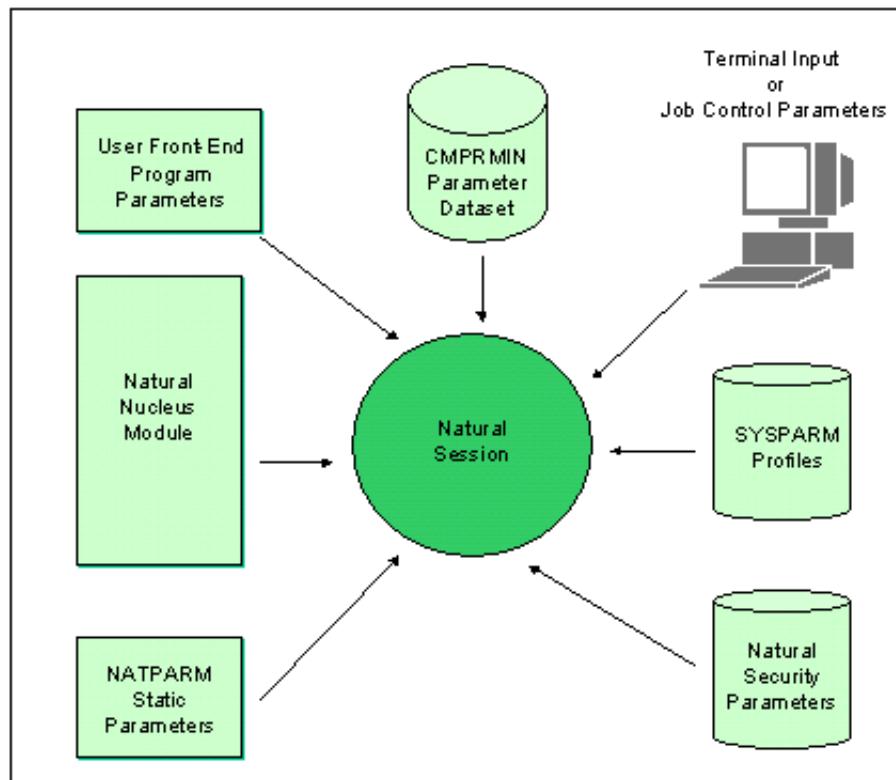
2. Dynamic assignments

Parameters specified for the Natural session execution. These parameters override the static assignments and are valid for the current Natural session. Dynamic parameters can be passed by a front-end program, a parameter dataset, session-initialization JCL, terminal input or Natural Security. In addition, it is possible to overwrite certain parameters by Natural program statements.

3. Session parameters

Parameters specified with the system command GLOBALS (or a SET GLOBALS statement) within the current Natural session. The parameters override static and dynamic assignments.

Illustration of the Natural Parameter Assignment:



Static Assignment of Parameter Values

The Natural system parameter module (NATPARM) is used for the static assignment of profile parameters for all Natural environments.

In the parameter module, you use the macro NTPRM, and several other macros, to specify the parameters.

Almost all parameter settings made in the parameter module can be overwritten dynamically at the start of a Natural session.

Due to technical reasons, for some profile parameters a corresponding macro is used for static assignment in the parameter module. Consequently the static and dynamic specifications differ slightly from each other, taking the following general form:

Static: MACRO-NAME OPTION1=value,OPTION2=value,...

Dynamic: PARAMETER-NAME=(OPTION1=value,OPTION2=value,...)

Example:

Macro in the Parameter Module: NTSORT WRKSIZE=500,EXT=ON

Equivalent Dynamic Profile Parameters: SORT=(WRKSIZE=500,EXT=ON)

If there is a corresponding macro for a profile parameter, this is indicated in the parameter description.

For more details on static assignment, see Assembling a Natural Parameter Module.

Some Natural subproducts (for example, Natural for DL/I or Natural for DB2) use additional parameter modules. These are described in the corresponding documentation of these subproducts.

Dynamic Assignment of Parameter Values

You can specify profile parameters dynamically at the start of a Natural session to override - for the duration of a single Natural session - individual profile parameter settings of the Natural system parameter module (NATPARM).

All profile parameters can be specified dynamically - except the following (which can be specified statically in the Natural parameter module only):

- CSTATIC (programs statically linked to the Natural parameter module);
- ISIZE (size of the initialization buffer).

If the value for a dynamic parameter contains special characters, the value must be specified enclosed in apostrophes. (Which characters are special characters is defined in the table macro NTSCTAB of NATCONFIG; see Natural Configuration Tables.)

The use of dynamic parameters can be enabled/disabled by the macro NTDYNP or the corresponding profile parameter DYNPARM.

For a more comfortable specification of dynamic parameters, you can use the PROFILE parameter or the SYS parameter. In addition, it is possible to set a number of dynamic parameters in Natural Security.

The dynamic parameter settings are passed to Natural when the session is started. The method used for passing the parameter values to Natural varies depending on the environment.

Example for OS/390 in batch mode:

- The values are specified by the PARM keyword in the EXEC job control statement that initiates Natural.
- In addition, dynamic parameters can be specified in the dataset CMPRMIN.
- Moreover, it is possible to write a front-end program which passes dynamic parameters for the start of the Natural session.

Specifying Dynamic Parameters under VSE/ESA

The dynamic parameters can either be passed directly with a PARM specification in the EXEC statement:

```
// EXEC NATBATCH,PARM='dynamic parameters...',SIZE=...
```

Or you can specify PARM='SYSRDR' to cause Natural to read the dynamic parameters from SYSRDR:

```
// EXEC NATBATCH,SIZE=...,PARM='SYSRDR'
dynamic parameters
...
/* END OF DYNAMIC PARAMETERS
```

If the PARM keyword is not specified in the EXEC statement, the SYSPARM parameter of the OPTION statement is checked for compatibility reasons:

```
...
// OPTION SYSPARM='SYSRDR'
// EXEC NATBATCH,SIZE=...
dynamic parameters
...
/* END OF DYNAMIC PARAMETERS
```

Session Parameters for Runtime Assignment of Parameter Values

To some profile parameters a value can be assigned within a Natural session at runtime, using a corresponding session parameter. The session parameter value will override the profile parameter value.

If a corresponding session parameter exists for a profile parameter, this is indicated in the description of the profile parameter.

Session parameters are specified with the system command GLOBALS. Session parameters are described in the Natural Reference documentation. The GLOBALS command is described in the Natural User's Guide for Mainframes.

Example:

```
GLOBALS SA=ON, IM=D
```

In reporting mode, session parameters can also be specified with the SET GLOBALS statement in a program.

Some profile parameters can also be overridden within a Natural session by a terminal command. If a corresponding terminal command exists for a profile parameter, this is indicated in the description of the profile parameter. Terminal commands are described in the Natural Reference documentation.

Example:

```
SET CONTROL 'T=3279'
```

The value of the profile parameter TTYPE is overwritten.