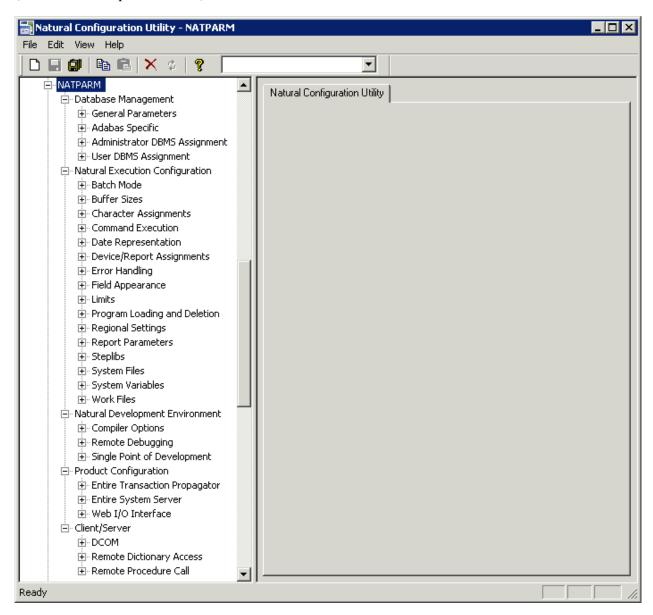
# **Overview of Profile Parameters**

This chapter provides information on the profile parameters that can be set in the NATPARM parameter file (or an alternative parameter file).



When you expand the node for a parameter file, nodes for following parameter groups are shown.

- Database Management
- Natural Execution Configuration
- Natural Development Environment
- Product Configuration

• Client/Server

For a full description of all available profile parameters, see the *Parameter Reference* or follow the links provided in this section.

# **Database Management**

This parameter group contains the following categories:

- General Parameters
- Adabas Specific
- Administrator DBMS Assignment
- User DBMS Assignment

See also: Database Management System Assignments in the global configuration file.

### **General Parameters**

The following profile parameters apply to the supported database management systems.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Database updating	DBUPD
Execution of END/BACKOUT TRANSACTION	ET
ET at end of program	ETEOP

## **Adabas Specific**

If Natural is used with Adabas, review the following profile parameters and, if necessary, adjust the default values to meet your specific requirements.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Adabas user identification	ETID
DB time limit	LDB
Multifetch	MFSET
Terminate when no ISN found with FIND statement	RCFIND
Terminate when no ISN found with GET statement	RCGET
Record hold processing	мн
Adabas OPEN/CLOSE processing	OPRB

## **Administrator DBMS Assignment**

The following profile parameters are used to assign administrator-specific database management system settings.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Administrator logical files	LFILE
XA database list	XADB
Translation of file number	TF

# **User DBMS Assignment**

The following profile parameters are used to assign user-specific database management system settings.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
User database ID	UDB
Database for transaction data	ETDB
User logical files	LFILE

# **Natural Execution Configuration**

This parameter group contains the following categories:

- Batch Mode
- Buffer Sizes

- Character Assignments
- Command Execution
- Date Representation
- Device/Report Assignments
- Error Handling
- Field Appearance
- Limits
- Program Loading and Deletion
- Regional Settings
- Report Parameters
- Steplibs
- System Files
- System Variables
- Work Files

### **Batch Mode**

The profile parameters which affect the batch mode behavior of Natural are arranged on the following pages:

- Channels
- Appearance
- Frame Characters

See also Natural in Batch Mode in the Operations documentation.

#### **Channels**

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Input data file name	CMOBJIN
Input data code page	CPOBJIN
Input commands file name	CMSYNIN
Input commands code page	CPSYNIN
Output file name	CMPRINT
Output code page	CPPRINT
Natural log	NATLOG
Enable error processing	CC

### **Appearance**

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Similar output	BMSIM
Display input data	ECHO
Display session-end message	ENDMSG
Display trailing blanks	BMBLANK
Display control characters	BMCONTROL
Display process time	BMTIME
Display window title	BMTITLE
Display Natural version	BMVERSION

### **Frame Characters**

	See the <i>Parameter Reference</i> for a description of this profile parameter
Frame characters	BMFRAME

## **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.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Storage for sort program	SORTSIZE
Source area size	SSIZE
Work area size	USIZE
SAG editor buffer pool size	EDTBPSIZE
SAG editor logical files	EDTLFILES

See also Buffer Pool Assignments in the local configuration file.

## **Character Assignments**

The following profile parameters are used to change default character assignments.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Terminal command character	CF
Clear key character	CLEAR
Decimal character	DC
Filler character	FC
Help character	HI
Input assign character	IA
Input delimiter character	ID
Thousands separator character	THSEPCH

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

### **Command Execution**

The following profile parameters are used to control the execution of commands.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Enable command mode	CM
Enable terminal command %% and %	ESCAPE
Disable Natural commands	NC
Dynamic recataloging	RECAT

## **Date Representation**

The following profile parameters are used to control the representation of dates.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Date format in output	DFOUT
Date format in STACK	DFSTACK
Date format in report titles	DFTITLE
Date format	DTFORM
Maximum year	MAXYEAR
Year sliding window	YSLW

## **Device/Report Assignments**

These parameters are used to modify your screen and printer configurations as well as your report assignments.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Override default report number	MAINPR
Devices	See Device Assignments below.
Reports	See Report Assignments below.

See also the profile parameter CMPRTnn which is used for additional reports in batch mode.

### **Device Assignments**

The **Devices** group shows a scrollable list of configurable logical devices (VIDEO and the logical printers LPT1 to LPT31) as used in the DEFINE PRINTER statement. The following information can be changed:

### Method

The buttons in this column display the print method used for the corresponding print device. You can choose a button to toggle the print methods.

Print Method	Description
ТТУ	This is the raw printing method where the text output by the Natural program is essentially forwarded to the spooler in unaltered form. Any printer commands must either be output as data by the Natural program or statically defined in TTY printer profiles. The Windows printer driver is not used.
GUI	This is the preferred print method under Windows, whereby the output from the Natural program is passed through the Windows printer driver associated with the specified printer. Unlike the TTY method, no knowledge of printer commands is required, since these are automatically inserted by the printer driver.

#### Close mode

You can select a different close mode for each logical printer. Possible values in the drop-down list box are:

Close Mode	Description	
Auto	Printers are automatically closed at the end of a program or when the execution of a called method is terminated. This is the default setting.	
User	Closing of printers is controlled by the user. The printer is closed, if one of the following conditions is met:	
	<ul> <li>a CLOSE PRINTER statement is executed,</li> <li>a DEFINE PRINTER statement is executed,</li> </ul>	
	• the session terminates.	

The following program example describes the user-controlled closing of printers. Note that the close mode must be first set in the parameter file.

```
DEFINE DATA
LOCAL
1 #OUT (A8)

END-DEFINE

*

#OUT := *PROGRAM

* * Write to report with close mode "user"

WRITE (1) 'OUTPUT PROGRAM: ' #OUT

*

* Write to report with close mode "auto"

WRITE (2) 'OUTPUT PROGRAM: ' #OUT

*

* Close printer 1

* Printer 1 is user-controlled

CLOSE PRINTER (1)

*

END
```

### Line Size

See the description of the LS parameter.

### Page Size

See the description of the PS parameter.

### Max. Pages

See the description of the MP parameter.

### Setup

You can choose a button in this column invoke a print method-specific dialog box:

Print Method	Description	
TTY	When you choose the <b>Setup</b> button for this print method, the <b>Setup TTY</b> dialog box appears in which you can specify the following options:	
	Physical specification	
	This corresponds to the printer name. Instead of selecting an existing physical printer specification from the drop-down list box, you can also enter a file name if you want your output to be written to a file.	
	Note: A server printer can be specified via the UNC naming convention (\\server-name\printer-name).	
	Print to file	
	Using this check box, you can specify whether file I/O is to be used to access the specified device (e.g. for printers which are set up as file system shares). If this check box is not selected, the data is output via spooler API function calls.	
GUI	When you choose the <b>Setup</b> button for this print method, the standard Windows <b>Print Setup</b> dialog box appears and you can select the Windows printer and associated print options such as page size and orientation.	
	Note:  If you wish to make use of the default Windows printer on each client computer at run-time, this dialog should not be used.  Alternatively, if a specific printer has already been chosen (even in a previous session) for this logical device, the default printer can be implicitly re-selected by switching the print method to TTY, closing the application, re-opening the application and switching the print method back to GUI. Note that any print options for the default printer must be set by using a printer profile.	

### Note:

The following applies to the print method TTY if the **Print to file** check box has been activated. As with work files, a file name can be defined by using environment variables. Any existing file of the same name at the specified location is normally overwritten, unless the entered file name is immediately prefixed by two right angle bracket characters (>>).

### **Report Assignments**

The **Reports** group shows a scrollable list in which you can assign a Natural report number (report 1 to report 31) to a logical device name. The following information can be changed:

#### **Device**

For each report number, you can select another output medium. Possible values in the drop-down list box are:

Value	Description
LPT1 to LPT31	Outputs the report data to the corresponding physical device.
SOURCE	Outputs the report data to the source area. The user can then, for example, issue the EDIT command to open the output data in the editor and save it accordingly.
DUMMY	Report data are discarded.
INFOLINE	Report data are sent to the infoline. See also the description of the terminal command %X.

Report 0 is always implicitly assigned to VIDEO (that is, the output is shown on the screen). No other report number can be assigned to VIDEO.

#### **Profile**

In addition to the name of the logical device, you can assign a printer profile that has been defined in the **Printer Profiles** node of the global configuration file. All defined printer profiles can be selected from the drop-down list box. Select the blank entry if you do not want to use any of these profiles.

#### **Important:**

Any specified printer profile must match the print method used at run-time. For example, if an attempt is made to use a GUI printer profile for a TTY logical device (or vice versa), the printer profile specification is ignored.

# **Error Handling**

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

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Error processing for PA/PF keys	IKEY
Display system error messages in full	MSGSF
Automatic REINPUT	REINP
Sound terminal alarm	SA
Sound bell on syntax error	SNAT
Zero division	ZD
Suppress message number prefix NAT	NOAPPLERR
Allow runtime interrupt	RTINT

# Field Appearance

The following profile parameters influence I/O handling.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Control variable modified at input	CVMIN
Filler chars protected	FCDP
Enable lowercase	LC
Overwriting protected	OPF
Zero printing	ZP
Print mode	РМ

## Limits

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

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Error on loop limit	LE
Processing loop limit	LT
Maximum number of DBMS calls	MADIO
Maximum number of program calls	MAXCL
System time delay	SD

# **Program Loading and Deletion**

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

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Dynamic loading of non-Natural programs	CDYNAM
Allow dynamic parameter	DYNPARM
Release GDA in utility mode	FREEGDA
Persistent parameter module	PERSIST
Read only access to system files	ROSY
Buffer pool search first	BPSFI
Error transaction program name	ETA
Program command line parameter	PRGPAR
Program to receive control after Natural termination	PROGRAM
Natural stack command line	STACK

## **Regional Settings**

The following profile parameters are used to control the country- or region-specific settings of Natural.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Day differential	DD
Time differential	TD
User language	ULANG
Use UTF-8 format for sources	SUTF8
Retain source format	SRETAIN
Code page conversion error	CPCVERR
Default code page	СР
Substitution character	SUBCHAR

# **Report Parameters**

The following profile parameters are used to control various attributes of Natural reports.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Page eject	EJ
Numeric edit mask free mode	EMFM
Line size	LS
Page size	PS
Spacing factor	SF
Default input terminal mode	IM

## **Steplibs**

The following parameters are used to manage the steplibs.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
*STEPLIB	STEPLIB
Steplib Extension	For information on how to define additional steplibs and how to use the columns in this table, see <i>Additional Steplib Assignments</i> below.

### **Additional Steplib Assignments**

You can define up to eight libraries that can be searched for objects which cannot be found in the current library. These additional steplibs are defined in a table. The steplib number is shown in the first column. The following information can be specified:

#### Name

The name of an existing library.

#### **DBID**

The database ID of the file system where the library is located.

### **FNR**

The file number of the file system where the library is located.

#### Note:

The following application programming interfaces are available for handling multiple steplibs: USR3025N (when Natural Security is not installed) and USR4025N (when Natural Security is installed).

## **System Files**

The following profile parameters are used to specify the Natural system files. A page is provided for each parameter, on which you can specify DBID, FNR, path, read only access, password and cipher for each system file.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
<b>FNAT</b> (Natural system file for system programs)	FNAT
FUSER (Natural system file for user programs)	FUSER
FSEC (Natural Security system file)	FSEC
FDIC (Predict system file)	FDIC
FDDM (Natural system file for DDMs)	FDDM

If you select a path that has already been assigned to another system file, all relevant internal information of the first assignment is copied automatically to the new assignment.

The physical location of each system file is defined in the global configuration file. See *System Files* in the global configuration file.

### **System Variables**

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

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Automatic logon	AUTO
Startup library	INIT-LIB
Startup program	STARTUP
User ID	USER

See also the *System Variables* documentation.

#### Note:

You can use the command line parameters NATVERS (to specify the Natural version) and PARM (to specify a specific Natural parameter file) at session startup. These parameters can only be specified dynamically, therefore, they cannot be modified or viewed within the Configuration Utility.

### **Work Files**

The following profile parameters can be used to specify work file settings.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
<b>Entire Connection local NCF protocol</b>	NCFVERS
Max. work file number	WORK
Alternate sort work file names	TMPSORTUNIQ
Work file open on first access	WFOPFA
Work files	For information on how to define work files and how to use the columns in this table, see <i>Work File Assignments</i> below.

See also the profile parameter CMWRKnn which applies to batch mode.

See also Work Files in the Operations documentation.

### **Work File Assignments**

The work file assignments are shown in a scrollable list containing work files with the numbers 1 to 32. The work file number is shown in the first column. When a work file name has already been defined for a work file number, this information (path and name) is shown in the **Name** column.

The following information can be changed:

### **Type**

For each work file number, you can select another work file type. Possible values in the drop-down list box are:

Work File Type	Description	
Default	Determines the file type from the extension for upward compatibility.	
SAG	Binary format.	
ASCII	Text files with records terminated by a carriage return and linefeed (CR/LF).  When you choose the browse button next to this drop-down list box, you can change the properties for this work file type: a dialog box appears in which you can specify the following information:	
	You can specify the code page that is to be used for writing the work file (ICU code page name; IANA name recommended). When a code page is not defined here, the default code page defined with CP is used.	

Work File Type	Description
ASCII compressed	ASCII format where all trailing blanks are removed.  When you choose the browse button next to this drop-down list box, you can change the properties for this work file type: a dialog box appears in which you can specify the following information:
	You can specify the code page that is to be used for writing the work file (ICU code page name; IANA name recommended). When a code page is not defined here, the default code page defined with CP is used.
Entire Connection	With this work file type, you can read and write (for example, with the statements READ WORK FILE and WRITE WORK FILE) directly to a work file in Entire Connection format on the local disk.  Note:  No transfer to a PC is possible. The Entire Connection terminal is not used in this process.
Unformatted	A completely unformatted file. No formatting information is written (neither for fields nor for records).  When you choose the browse button next to this drop-down list box, you can change the properties for this work file type: a dialog box appears in which you can specify the following information:  Code page
	You can specify the code page that is to be used for writing the work file (ICU code page name; IANA name recommended). When a code page is not defined here, the default code page defined with CP is used.
Portable	Files which can handle dynamic variables exactly and can also be transported (for example, from a little endian machine to a big endian machine, and vice versa).

Work File Type	Description	
CSV	Comma-separated values. Each record is written to one line in the file. By default, a header is not written. The default character which is used to separate the data fields is a semicolon (;).	
	When you choose the browse button next to this drop-down list box, you can change the properties for this work file type: a dialog box appears in which you can specify the following information:	
	Header	
	When set to "ON", a header with the Natural field names is written to the file.	
	Separator character	
	You can select a different separator character. If you require a separator character which is not listed in the drop-down list box, you can enter it in the text box of the drop-down list box.	
	Code page	
	You can specify the code page that is to be used for writing the work file (ICU code page name; IANA name recommended). When a code page is not defined here, the default code page defined with CP is used.	

### **Note:**

The browse button next to this drop-down list box is only available for specific work file types. See the information in the above table.

For information on the work file formats which result from a specific work file type, see *Work File Formats* in the *Operations* documentation.

#### Close mode

You can select a different close mode for each work file. Possible values in the drop-down list box are:

Close Mode	Description
Auto	This is the default setting. Work files are automatically closed at the end of a program or when the execution of the first called method in a method call hierarchy is terminated and the first called method was called over COM.
	If the first called method was called locally (not over COM), the work files are not closed.
	Example: Method A (called over COM) invokes method B which in turn invokes method C. When the execution of method A is terminated, all work files are closed.
User	Closing of work files is controlled by the user. The work file is closed, if one of the following conditions is met:
	• a CLOSE WORK FILE statement is executed,
	• a DEFINE WORK FILE statement is executed,
	• the session terminates.

The following program example describes the user-controlled closing of work files. Note that the close mode must be first set in the parameter file.

```
DEFINE DATA
LOCAL
1 #OUT (A8)
END-DEFINE

*
#OUT := *PROGRAM

* Write to work file with close mode "user"
WRITE WORK 1 'OUTPUT PROGRAM: ' #OUT

*
* Write to work file with close mode "auto"
WRITE WORK 2 'OUTPUT PROGRAM: ' #OUT

*
* Close work file 1

* Work file 1 is user-controlled
CLOSE WORK FILE 1

*
END
```

#### **Attributes**

You can define different attributes for each work file. You can specify one attribute for each of the following categories:

Category	Possible Attributes	Default Attribute	Description
Append mode	NOAPPEND or APPEND	NOAPPEND	Decides whether new data overwrites the current data in the work file or whether new data is appended at the end of the current data.
Keep/delete work file after close	KEEP or DELETE	KEEP	Decides whether the work file is kept after closing it or whether it is deleted.
Write byte order mark (BOM)	BOM or NOBOM	NOBOM	Decides whether a byte order mark is written in front of the work file data.  Only available for the work file types which write code page data: ASCII, ASCII compressed, Unformatted and CSV. For these work file types, the attribute BOM can only be set, if the code page UTF-8 is defined for the work file (see the description of the <b>Type</b> column).  If a work file of another type is written or a code page other than UTF-8 is defined, the specification of the attribute BOM is ignored during runtime.  See also Work Files and Print Files on Windows, UNIX and OpenVMS Platforms in the Unicode and Code Page Support documentation.

When you choose the browse button next to this text box, you can set these attributes in a dialog box. You can also set them in the table as described below.

You can enter a unique abbreviation for each attribute. The delimiter character can be one of the following: blank, comma(,) or semicolon (;). Example: "a, d" which stands for APPEND and DELETE.

You can only specify one attribute for each category. You can specify them in any sequence. When no attributes are specified in the table, the default values are used. You can also check the current values by invoking the dialog box.

#### Name

Specify the location (path and name) of the work file.

You can also choose the browse button next to this text box to select the work file from a dialog box.

See also Defining Work File Names with Environment Variables in the Operations documentation.

# **Natural Development Environment**

This parameter group contains the following categories:

- Compiler Options
- Remote Debugging
- Single Point of Development

## **Compiler Options**

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

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Interpretation of database field short names	DBSHORT
Dump generation	DU
Length/format specification	FS
Keyword checking	KCHECK
Structured mode	SM
Generate symbol tables	SYMGEN
Syntax error control	SYNERR
Dynamic thousands separator	THSEP
Translate quotation marks	TQMARK
MASK compatible with MOVE EDITED	MASKCME
Parameter checking for CALLNAT statement	PCHECK
Internal sign representation of format P	PSIGNF
Endian mode	ENDIAN
Generation of global format identifiers	GFID
Active cross reference	XREF

See also *Compiler Options* in the section *Using Session Parameters* of the *Using Natural Studio* documentation and the description of the system command COMPOPT.

## **Remote Debugging**

The following profile parameters are used to allow for remote debugging.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Remote debugging	RDACTIVE
Node name	RDNODE
Port number	RDPORT

See also the *Debugger* documentation.

### **Single Point of Development**

The following profile parameter is used in a remote development environment. It is only relevant if you intend to use the old Natural debugger in conjunction with an earlier version (NDV2.1) of the Natural Development Server.

	See the <i>Parameter Reference</i> for a description of this profile parameter
Debugging port	SPODDEBUGPORT

# **Product Configuration**

This parameter group contains the following categories:

- Entire Transaction Propagator
- Entire System Server
- Web I/O Interface

# **Entire Transaction Propagator**

The following profile parameters are used in conjunction with Software AG's Entire Transaction Propagator.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
ETP database list	ETPDB
Size of ETP work area	ETPSIZE

## **Entire System Server**

The following profile parameter is used in conjunction with Software AG's Entire System Server Interface.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
ESX database	ESXDB

### Web I/O Interface

The following profile parameter is used for Unicode support with the Natural Web I/O Interface.

<u> </u>	See the <i>Parameter Reference</i> for a description of this profile parameter
Web I/O Interface	WEBIO

# Client/Server

This parameter group contains the following categories:

- DCOM
- Remote Dictionary Access
- Remote Procedure Call

### **DCOM**

The following profile parameters are used to provide DCOM support.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Server name	COMSERVERID
Activation policy	ACTPOLICY
Automatic update of registry	AUTOREGISTER

## **Remote Dictionary Access**

The following profile parameters are used for remote dictionary access.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Name of logical dictionary server	USEDIC  When a logical dictionary server has been defined in the global configuration file, you can select it from the drop-down list box. See <i>Dictionary Server Assignments</i> in the global configuration file.
Enable usage of repository	USEREP

## **Remote Procedure Call**

The profile parameters which apply to the Natural Remote Procedure Call (RPC) are arranged on the following pages:

- RPC (General)
- RPC (Client)
- RPC (Server)
- RPC (RDS)

## RPC (General)

These profile parameters apply to both client and server.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Request buffer size	MAXBUFF
ACI version	ACIVERS
Code page	CPRPC

### RPC (Client)

These profile parameters apply to the client only.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Automated remote execution	AUTORPC
Retry service on alternative server	TRYALT
Send-buffer compression	COMPR
Request timeout	TIMEOUT
Default server	DFS
Library for service directory	RPCSDIR

## RPC (Server)

These profile parameters apply to the server only.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Start session as RPC server	SERVER
Logon required for server request	LOGONRQ
Server name	SRVNAME
Server node	SRVNODE
Server user ID	SRVUSER
Server wait time	SRVWAIT
Server termination event	SRVTERM
Server commit time	SRVCMIT
Transport protocol	TRANSP
RPC trace	TRACE

## RPC (RDS)

This profile parameter applies to the client only.

Option	See the <i>Parameter Reference</i> for a description of this profile parameter
Remote directory servers	RDS