

Server Command Execution

The SYSRPC utility provides the server execution commands ping and terminate. They are used to control active servers that have been defined in the service directory. The ping command sends an internal message to the server to verify a server connection. Terminate either sends an internal message to the server requesting termination of a single server task, or issues a command to EntireX Broker requesting termination of all server tasks associated with an EntireX Broker service.

The server execution commands reference the service directory in the library that is defined with the NTRPC/RPC keyword subparameter RPCSDIR (see the *Parameter Reference* documentation). If RPCSDIR is not set (this is the default), the library where you are currently logged on is used. The name of the library is indicated in the upper right corner of the **Server Command Execution** screen shown in the following section.

This section covers the following topics:

- Using Server Command Execution
- Pinging a Server
- Terminating a Server

Using Server Command Execution

▶ To use Server Command Execution

1. In the **Code** field of the **Client Maintenance** menu, enter the following command:

`xc`

2. Choose ENTER.

The standard view of the **Server Command Execution** screen appears similar to the following example:

```

14:09:38          *** NATURAL Remote Procedure Call ***          2006-01-27
                  Server Command Execution                        SYSRPC

   Node                Server                Message
1   ETB045
2
3   NRPC001             Natural
4   NRPC002
5   *LOCTRAN
6   NRPC001-LOGICAL
7   LOGBROKER=NODE     NRPC002

-----
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  ERR   Exit  <   -H   +H   -P   +P   TOP  BOT  >   Canc

```

The standard view displays the columns **Node**, **Server** and **Message**. The fields under the column **Message** are truncated and display a maximum of 8 characters.

- If you choose PF4 or enter the less than (<) sign in the command line at the bottom of the screen, the extended message view of the **Server Command Execution** screen is displayed similar to the following example:

```

14:14:08          *** NATURAL Remote Procedure Call ***          2006-01-27
                  Server Command Execution                        SYSRPC

   Server              Message
1   NRPC001            Natural RPC Server 6.3.1.0 on WNT-x86
2   NRPC002
3
4   NRPC001-LOGICAL
5
6   NRPC002
7

-----
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  ERR   Exit  <   -H   +H   -P   +P   TOP  BOT  >   Canc

```

The extended view allows you to display a maximum of 50 characters of message text in the **Message** column. This view does not display the **Node** column and the fields under the **Server** column are truncated and display a maximum of 16 characters (the standard view shows 30 characters).

If you choose PF11 or enter the greater than (>) sign in the command line, the standard view of the **Server Command Execution** screen is displayed as shown in *Example of a Standard View*.

Pinging a Server

You can ping a server from the standard or extended message view of the **Server Command Execution** screen.

The following instructions are an example of how to ping a server from the standard view.

For an alternative method of pinging an RPC server, see Application Programming Interface USR2073N described in the *Natural Remote Procedure Call (RPC)* documentation.

 **To ping a server**

1. In the **Code** field of the **Client Maintenance** menu, enter the following command:

```
XC
```

2. Choose ENTER.

The standard view of the **Server Command Execution** screen is displayed.

3. In the empty column between the sequence number and the **Node** column, in the line(s) which belong to the server(s) to be pinged, enter the following command:

```
PI
```

as shown in the example below:

09:49:41	*** NATURAL Remote Procedure Call ***	2006-01-27
	Server Command Execution	SYSRPC
	Node	Server
1	ETB045	Message
2	PI	NRPC001
3		NRPC002
4	*LOCTRAN	
5	PI	NRPC001-LOGICAL
6	LOGBROKER=NODE	
7		NRPC002

4. Choose ENTER. The server(s) return the message:

Server V.R.S.PL on operating system

where

Server denotes the type of server; *V.R.S.PL* denotes the 1-digit version *V*, the 1-digit release *R*, the 1-digit system maintenance level *S* and the 1- or 2-digit patch level *PL* of the server; *operating system* denotes on which operating system the server runs.

Example message:

```
Natural RPC Server 6.3.1.0 on WNT-x86
```

If pinging the server fails and an error occurs instead, you can choose PF2 (ERR) to display RPC-related Natural and EntireX Broker messages as described in *Using the RPCERR Program (Monitoring the Status of an RPC Session, Natural Remote Procedure Call (RPC) documentation)*.

5. To display more of the message text which appears truncated in the standard view of the **Server Command Execution** screen (see also *Example of a Standard View*) proceed as follows:

Choose PF4.

Or:

In the command line, enter the less than (<) sign.

Terminating a Server

The SYSRPC utility provides two commands to terminate a server: TE (Terminate Server) and TS (Terminate EntireX Broker Service).

TE terminates a single server task by sending an internal message to the server. If a server is associated with multiple server tasks (including replicas on mainframe platforms), you can either terminate each server task separately by using TE, or terminate all server tasks in one go by using the TS command.

TS terminates all server tasks associated with an EntireX Broker service by calling EntireX Broker's Command and Information Services (ETBCIS; for details, see the EntireX documentation). The term *service* here summarizes all server tasks that run with the same server name on the same or on different platforms.

You can terminate server tasks from the standard or extended message view of the **Server Command Execution** screen.

The following section provides instructions for terminating a single server task or an EntireX Broker service from the standard view.

For alternative methods of terminating servers, see *Terminating a Natural RPC Server* and the Application Programming Interface USR2073N, and *Terminating the EntireX Broker Service* and the Application Programming Interface USR2075N described in the *Natural Remote Procedure Call (RPC) documentation*.

To terminate a single server task

1. In the **Code** field of the **Client Maintenance** menu, enter the following command:

```
XC
```

The standard view of the **Server Command Execution** screen is displayed.

- In the empty column between sequence number and **Node** column, in the line which belong to the server to be terminated, enter the following command:

TE

(This is similar to entering the command **PI** as show in the example of pinging a server.)

- Choose **ENTER**.

The server returns the message:

```
Terminating Server V.R.S.PL on operating system
```

where

Server denotes the type of server; *V.R.S.PL* denotes the 1-digit version *V*, the 1-digit release *R*, the 1-digit system maintenance level *S*, and the 1- or 2-digit patch level *PL* of the server; *operating system* denotes on which operating system the server runs.

Example message:

```
Terminating Natural RPC Server 6.3.1.0 on WNT-x86
```

If terminating the server fails and an error occurs instead, you can choose **PF2 (ERR)** to display RPC-related Natural and EntireX Broker messages as described in *Using the RPCERR Program (Monitoring the Status of an RPC Session, Natural Remote Procedure Call (RPC) documentation)*.

To display more of the message text which appears truncated in the standard view of the **Server Command Execution** screen:

Choose **PF4**.

Or:

In the command line, enter the less than (<) sign.

- If the **Logon** option is set in the service directory, logon data (user ID, password and library name) is sent to the server with the **TE** command, as is usual for remote **CALLNAT** execution. The **Security Token Data** window pops up and requests input of user ID and password if no Natural Security is installed on the client side and no logon data is set with the Application Programming Interface **USR1071N** for the current Natural session. See also **USR1071N** described in *Using Security, Using Natural RPC with Natural Security*, in the *Natural Remote Procedure Call (RPC) documentation*.

If **LOGONRQ=ON** (see also *Using Security* in the *Natural Remote Procedure Call (RPC) documentation*) has been set on the server side, logon data must be sent from the client with the **TE** command.

If Natural Security is installed on the server, the logon data transferred must enable a logon to the Natural system library **SYSRPC**.

To terminate an EntireX Broker service

1. In the **Code** field of the **Client Maintenance** menu, enter the following command:

`XC`

The standard view of the **Server Command Execution** screen is displayed.

2. In the empty column between sequence number and **Node** column, in the line which belong to the server to be terminated, enter the following command:

`TS`

(This is similar to entering the command `PI` as show in the example of pinging a server.)

3. Choose ENTER.

The **SYSRPC - Terminating EntireX Broker Service** window appears.

4. If required for the logon, enter the appropriate user ID and password for EntireX Broker.

If you want to terminate server tasks that are involved in a conversation, in the **Terminate immediately** field, enter a `Y` to request immediate termination. If you enter an `N` (this is the default setting), all server tasks involved in a conversation remain operational.

If you do not want this window to appear repeatedly during the current SYSRPC session, choose **Do not show this window again**.

5. Choose ENTER to terminate the EntireX Broker service.