

SYSRPC - Stub Generation

The Stub Generation function is used to generate client stub subprograms. Though stubs are actually not required if automatic Natural RPC execution is used, it may be advantageous to generate them anyway.

For more details, see Stubs and Automatic RPC Execution in the section Operating a Natural RPC Environment in the Natural RPC documentation.

This section covers the following topics:

- Invoking Stub Generation
 - Fields
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Invoking Stub Generation

Invoking and using the Stub Generation function

1. On the SYSRPC utility window, from the Tools menu, choose Stub Generation.
Or right-click a tree node to invoke the context menu and choose Stub Generation.
The "Input for the Stub Generation" box appears.
2. In the "Input for the Stub Generation" box, check or change (if desired) the entries in the fields:
 - Name:
Enter the name of the stub subprogram to be generated.
The name of the stub subprogram must be the same as the name of the remote CALLNAT program.
 - Library:
If desired, change the name of the library in which the stub subprogram is to be generated. The name of the library is preset with the current library. It is possible to generate the stub subprogram direct into the application library.
 - DBID, FNR:
Non-modifiable field. It displays the DBID (database ID) FNR (file number) and type of Natural file (FNAT = system, FUSER = user) for the library entered.
 - Compression:
Choose Compression Type 0, 1 or 2 (default is 1); see Using Compression as described in Operating a Natural RPC Environment in the Natural RPC documentation.
3. Click OK.
If the subprogram specified already exists for the library specified, a window appears asking you if you want to keep the old definitions:
 - If you want to modify an existing stub, click Yes.
 - If you want to generate a new stub, click No.

The Stub Generation box appears displaying the parameter data area with filled input fields for the stub subprogram to be modified, or empty input field for new stubs. Note that you can still keep old definitions, even after you have entered new values if you abort execution by clicking Cancel.

4. In the Stub Generation box, add or modify the parameters to be used in the stub subprogram:
Enter a value or select it from a drop-down list box (see also Fields below).
5. Click OK to generate the stub subprogram and to exit the Stub Generation box.
The stub subprogram is generated in the current library, which is not usually SYSRPC.
6. If the stub was generated in the library SYSRPC, you must move the stub to the application library or steplib.
After execution of the Stub Generation function, the stub subprogram exists as source and as cataloged object.
After transferring stub sources into other environments, you must recatalog them.

Fields

The following fields are provided in the Stub Generation screen:

Field	Description
Attr	The attribute which specifies the parameter as: M (modifiable field), O (output field) or I (input field).
Type	Natural data type, such as N (numeric). Data types C and Handle are not allowed.
Len	Length of the variable. Natural data types A are restricted to 253 bytes, data types B are restricted to 126 bytes. Dynamic variables are not allowed.
Prec	Only applies to data types N (numeric) and P (packed). Optional. Precision of the variable, that is, number of digits after the decimal point.
1./2./3. Dim	Only applies to arrays. Optional. First, second and third dimension of the variable.

Example:

The following example shows four modifiable parameters that correspond to the following variable definitions in a Natural program:

```
DEFINE DATA
PARAMETER
1 #X001(A10)
1 #X002(I4)
1 #P003(P5.2)
1 #X004(A100/5,4)
```

Stub Generation							
	Attr	Type	Len	Prec	1. Dim	2. Dim	3. Dim
1	M	A	10				
2	M	I	4				
3	M	P	5	2			
3	M	A	100		5	4	1