Stub Generation - CUIs

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

Invoking Stub Generation

Invoking and using the Stub Generation function

1. In the Code field of the Client Maintenance screen, enter **SG**.
   The Generate Client Stub Routine window appears.
2. 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.
   Change the name of the library, if desired. It is possible to generate the stub subprogram directly into the application library. The name of the library is preset with the current library.
   The relevant DBID (database ID) and FNR (file number) are displayed.
3. 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.
4. Press ENTER.
   - If the subprogram specified in Step 2 already exists in the library specified, a corresponding window is displayed:
     Specify **N** (No) and press ENTER if you do not want to generate a new stub.
     You will be returned to the Client Maintenance screen.
     Specify **Y** (Yes) and press ENTER.
     The parameter data area of the existing subprogram is displayed in the Stub Generation screen.
   - If the subprogram specified in Step 2 does not exist, an empty Stub Generation screen is displayed.
5. Add or modify the parameters to be used in the stub subprogram.
   On the Stub Generation screen, the same editor and line commands apply that are valid for the Service Directory Maintenance function. See the relevant section.
6. Press ENTER to generate the stub subprogram and to exit.
   The stub subprogram is generated in the library specified in Step 2.
   If the stub was generated in the library SYSRPC, you must move the stub to the application library or steplib using the appropriate Natural transfer utility (SYSMAIN, SYSTRANS or SYSOBJH). Note that you may have to recatalog the stub sources in the target environment.

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 4 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

