

Natural Business Services

Natural Business Services Subprogram-Proxy-Client Model

Version 8.2.2

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This document applies to Natural Business Services Version 8.2.2 and all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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Preface

This documentation describes how to generate a subprogram proxy using the Subprogram-Proxy-Client model. It is intended for developers and others who want to create subprogram proxy clients using the supplied model.

This documentation is organized under the following headings:

Introduction

Provides an overview of the Subprogram-Proxy model.

Using the Subprogram-Proxy-Client Model

Describes the Subprogram-Proxy-Client model.

Calling Natural Objects

Describes the parameter interface and how to invoke services locally and via EntireX.

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Document Conventions

Convention	Description
Bold	Identifies elements on a screen.
Monospace font	Identifies service names and locations in the format <i>folder.subfolder.service</i> , APIs, Java classes, methods, properties.
<i>Italic</i>	Identifies: Variables for which you must supply values specific to your own situation or environment. New terms the first time they occur in the text. References to other documentation sources.
Monospace font	Identifies: Text you must type in. Messages displayed by the system. Program code.
{ }	Indicates a set of choices from which you must choose one. Type only the information inside the curly braces. Do not type the { } symbols.
	Separates two mutually exclusive choices in a syntax line. Type one of these choices. Do not type the symbol.
[]	Indicates one or more options. Type only the information inside the square brackets. Do not type the [] symbols.
...	Indicates that you can type multiple options of the same type. Type only the information. Do not type the ellipsis (...).

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Data Protection

Software AG products provide functionality with respect to processing of personal data according to the EU General Data Protection Regulation (GDPR). Where applicable, appropriate steps are documented in the respective administration documentation.

2 Introduction

The Subprogram-Proxy-Client model generates a subprogram proxy to invoke Natural business services from a client. Clients can call these Natural subprograms from the same Natural environment or use EntireX to call them from a non-Natural Business Services Natural environment (by supplying the NBS server values in the call to the Natural client).

When generating a subprogram proxy to invoke business services from a client, remember the following:

- The proxy must be generated on the server.
- After generation, the proxy and all proxy-specific PDAs must be moved to the client and stowed.



Note: To invoke business services from a client that does not have Natural Business Services installed, you must first install the Natural client service runtime component. For information, see the applicable installation guide.

3 Using the Subprogram-Proxy-Client Model

You can generate the Subprogram-Proxy-Client model in the Generation subsystem.

➤ To generate the Subprogram-Proxy-Client model

- 1 Enter "ncstg" on the Natural command line.

The Natural Construct Generation main menu is displayed.



Note: For more information on using the Generation main menu, see *Natural Construct Generation*.

- 2 Type "M" in `Function`.
- 3 Type the name of your subprogram proxy client in `Module`.
- 4 Type "Subprogram-Proxy-Client" in `Model`.
- 5 Press Enter.

The Standard Parameters panel for the Subprogram-Proxy-Client model is displayed. For example:

```

CUSQMA          SUBPROGRAM-PROXY-CLIENT Subprogram          CUSQMA0
Jun 01          Standard Parameters          1 of 1

Module ..... SPCLIENT
System ..... CSTDEMO_____

Title ..... Subp proxy client for..._
Description ..... Description of subprogram proxy client that..._____
                _____
                _____
                _____

Server proxy subp .. _____ *

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
main  help  retrn quit                                userX main

```

- 6 Select the name of the server proxy from Server proxy subp.

To determine the name of the server proxy, scan the library for subprograms generated by the Subprogram-Proxy model.

- 7 Press Enter.

The Generation main menu is displayed.

- 8 Enter "G" in Function to generate the subprogram proxy client.

4 Calling Natural Objects

Each generated Natural client will have the following parameter interface:

```
PARAMETER
01 CALL-PARMS
  02 BROKER-ID (A32)
  02 SERVER-NAME (A80)
  02 SERVER-CLASS (A80)
  02 SERVER-SERVICE (A80)
01 #METHOD (A32)
PARAMETER
...[your service parameters]...
```

➤ To invoke the service locally

- Do not supply values for the fields in the CALL-PARMS structure.

➤ To invoke the service via EntireX

- Supply the values for your Dispatch server in the CALL-PARMS structure (in SERVER-NAME).

The default values in the CALL-PARMS structure are:

- SERVER-NAME=DISPATCH
- SERVICE-CLASS=BUSINESS
- SERVER-SERVICE=MAIN



Tip: You can also use the CSXCSQI supplied sample routine in the SYSCSTX library to automatically configure the CALL-PARMS interface when your client is invoked. For more information, refer to the source for CSXCSQI.

