

PL/I Wrapper Reference

This chapter covers the following topics:

- The RPC Communication Area (Reference)
- PL/I Wrapper Modules Delivered as Sources on z/OS

The RPC Communication Area (Reference)

This section provides the programmer with reference material on the RPC Communication Area. The RPC communication area is used to specify parameters which are needed to communicate with the broker and are not specific to interface objects. These are, for example, the broker ID, client parameters such as user ID, password and the server address such as class/servername/service etc.

The RPC communication area is provided in include file RPCCOM.

RPC Communication Area Field	Explanation	Req. Opt. Auto	In Out	Notes
COM_EYECATCHER	Internal use only - not for customer use.	-	-	1
COM_VERSION	Version of RPC Communication Area.	Req.	I	2
COM_SIZE	Size of RPC Communication Area.	Req.	I	2
COM_FUNCTION	LO - Logon to broker.	Opt	I	3
	LF - Logoff from broker.	Opt	I	3
	OC - Open Conversation.	Opt	I	4
	CB - Close Conversation.	Opt	I	4
	CE - Close Conversation and Commit.	Opt	I	4
COM_ERROR	Error code and error text returned by PL/I Wrapper.	-	O	5
COM_BROKER_ID	Broker ID used. Corresponds to the BROKER-ID field of the control block.	Req.	I	6
COM_SERVER_CLASS	Class Name of the RPC server. Use "RPC" for Natural RPC Server. Corresponds to the SERVER-CLASS field of the ACI control block.	Req.	I	6
COM_SERVER_NAME	Server Name of the RPC server. Corresponds to the SERVER-NAME field of the ACI control block.	Req.	I	6

RPC Communication Area Field	Explanation	Req. Opt. Auto	In Out	Notes
COM_SERVER_SERVICE	Service Name of the RPC server. Use "CALLNAT" for Natural RPC Server. Corresponds to the SERVICE field of the ACI control block.	Req.	I	6
COM_SERVER_LIBRARY	Library sent to the RPC server. The library specified here overrides any library information specified in the IDL file, see library-definition.	Opt	I	7, 4
COM_SERVER_CONVID	Conversation ID if in an RPC Conversation. Corresponds to the CONV-ID field of the ACI control block.	Auto	-	4
COM_SERVER_WAIT	Gives the time-out value for the transport system in seconds. Corresponds to the WAIT field of the ACI control block.	Opt	I	7
COM_CLIENT_USERID	Broker user identification. Corresponds to the USER-ID field of the ACI control block.	Req.	I	6, 3
COM_CLIENT_TOKEN	Token used by the broker to identify the caller. Corresponds to the TOKEN field of the ACI control block.	Opt	I	7, 3
COM_CLIENT_PASSWORD	Password to be transmitted to the broker to check authentication. Corresponds to the PASSWORD field of the ACI control block.	Opt	I	7, 3
COM_CLIENT_SECTOKEN	Broker security token. Received also from broker and assigned to this field for further use. Corresponds to the SECURITY-TOKEN field of the control block.	Auto	I	8
COM_CLIENT_RPCUSERID	RPC user ID, provided to Natural Security.	Opt	I	7, 9
COM_CLIENT_RPCPASSWORD	RPC password provided to Natural Security.	Opt	I	7, 9
COM_CLIENT_CODEPAGE	Corresponds to the LOCALE-STRING field of the ACI control block.	Opt	I	10
COM_CLIENT_BROKERLOGON	Internal use only - <i>not</i> for customer use.	-	-	1
COM_CLIENT_NATSECURITY	Flag signaling a Natural Security ticket has to be provided with interface object calls.	Opt	I	7, 9
COM_DATA_FILLED	Internal use only - <i>not</i> for customer use.	-	-	1
COM_DATA_MAXLEN	Internal use only - <i>not</i> for customer use.	-	-	1
COM_DATA_NCHUNK	Number of chunks allocated as a minimum, used by memory allocation.	Opt	I	7, 10
COM_DATA_SCHUNK	Size of a chunk, used by memory allocation.	Opt	I	7, 10
COM_TRACE_LEVEL	Internal use only - <i>not</i> for customer use.	-	-	11

RPC Communication Area Field	Explanation	Req. Opt. Auto	In Out	Notes
COM_TRACE_FCTLVL	Internal use only - <i>not</i> for customer use.	-	-	1
COM_TRACE_INDENT	Internal use only - <i>not</i> for customer use.	-	-	1
COM_DATA	Internal use only - <i>not</i> for customer use.	-	-	1

RPC Communication Area field

Name of the field in the RPC communication area.

Explanation

Explanation of the purpose of the field.

Req. Opt. Auto

Indicates for input fields whether they have to be given by the RPC application (required) or may be given (optional). Fields marked with Auto are managed internally by the interface objects and the *Using the Generic RPC Services Module* themselves.

In Out

Indicates whether the field is an input field (to be given by the RPC application), or an output field (returned to your RPC application).

Notes:

1. Used internally by PL/I Wrapper. The field *must not* be modified by your application program - otherwise unexpected behavior may occur.
2. For more information, see *Step 1d: Declare and Initialize the RPC Communication Area*.
3. For more information, see *Using Broker Logon and Logoff*.
4. RPC conversations are supported if communicating with an RPC server. They are not supported if communicating with XI Adapters. For more information, see *Conversational RPC*.
5. For more information, see *Step 7: Examine the Error Code* under *Writing an RPC Client Application with the PL/I Wrapper*.
6. For more information, see *Step 4: Required Settings in the RPC Communication Area* under *Writing an RPC Client Application with the PL/I Wrapper*.
7. For more information, *Step 6: Issue the RPC Request* under *Writing an RPC Client Application with the PL/I Wrapper*.
8. If EntireX Security is used, the field *must not* be modified by your application program - otherwise unexpected behavior may occur.
9. Natural Security is only relevant when communication with Natural RPC Server. For more information, see *Using Natural Security*.
10. For more information, see *Using Internationalization with the PL/I Wrapper*.
11. Send and Receive buffers for the broker are allocated in blocks, whereby the required number of blocks is determined by the interface object automatically. The default size of a block (4096 byte) can be altered with the field COM_DATA_SCHUNK whereby the needed number is adjusted automatically by the interface object then. With the field COM_DATA_NCHUNK a minimum number of blocks allocated is defined, which is used if the calculation by the interface object gives a lower

number than the minimum. The default minimum number (4 blocks) can be altered with the field COM_DATA_NCHUNK. Normally it is not required to alter COM_DATA_SCHUNK and COM_DATA_NCHUNK fields.

12. For future use.

PL/I Wrapper Modules Delivered as Sources on z/OS

Among the generated PL/I sources and include files, the following PL/I modules are delivered . Some of them are PL/I sources, some of them are PL/I include files.

Module	Data Set	Description	Notes
PLIDEF	EXP970.INCL	Broker ACI control block for PL/I, referenced by the Generic RPC Services Modules	1,5
RPCAPI	EXP970.INCL	Generic RPC services interfaces	4
RPCCOM	EXP970.INCL	RPC communication area	3
RPCDEF	EXP970.INCL	Used internally by stubs and other parts	1
RPCPPD	EXP970.INCL	Preprocessor definitions	1
RPCSRVI	EXP970.INCL	Generic RPC services used internally	1,5
RPCSRVS	EXP970.INCL	Specific RPC functions used internally	1,6
RPCSRVSB	EXP970.INCL	Specific RPC functions used internally	1
PLISRVI	EXP970.SRCE	Batch generic RPC services	1,2,5
PLISRVIC	EXP970.SRCE	CICS generic RPC services	1,2,5
PLISRVS	EXP970.SRCE	Specific RPC functions	1,2,6
PLISRVT	EXP970.SRCE	Trace functions module	1,2,7

Module

Name of the delivered module.

Data Set

In the table *vrs* represents the version, release and service pack. You will also find the module on DVD in the folder PL/I.

EXP970.QIPL - CICS RPC example include data set for PL/I.

The CICS RPC example include data set for PL/I may be delivered as a patch with a different name, EXP970.QInn, where *nn* is the patch level number. Make sure you install the highest patch level available.

EXP970.PIPL - Batch RPC example include data set for PL/I.

The Batch RPC example include data set for PL/I may be delivered as a patch with a different name, EXP970.PInn, where *nn* is the patch level number. Make sure you install the highest patch level available.

EXP970.INCL - Generic RPC include data set.

The Generic RPC include data set may be delivered as a patch with a different name, EXP970.IN nn , where nn is the patch level number. Make sure you install the highest patch level available.

EXP970.SRCE - Generic RPC source data set.

The Generic RPC source data set may be delivered as a patch with a different name, EXP970.S0 nn , where nn is the patch level number. Make sure you install the highest patch level available.

Description

Purpose of the module.

Notes:

1. This file is not for direct customer usage. Do *not* modify it.
2. The prefix of the linkage name can be customized, see *PL/I Preprocessor Settings*.
3. For more information, see *The RPC Communication Area (Reference)*.
4. For more information, see *Step 1c: Declare API Constants to PL/I Wrapper*.
5. For a short description, see *Using the Generic RPC Services Module*.
6. The specific RPC functions module contains the logic to build the RPC request stream and interpret the reply from the RPC server. It does *not* contain the call to the broker stub.
7. The trace module contains functions and procedures to build a trace version of the PL/I Wrapper, see *Using Trace*.