

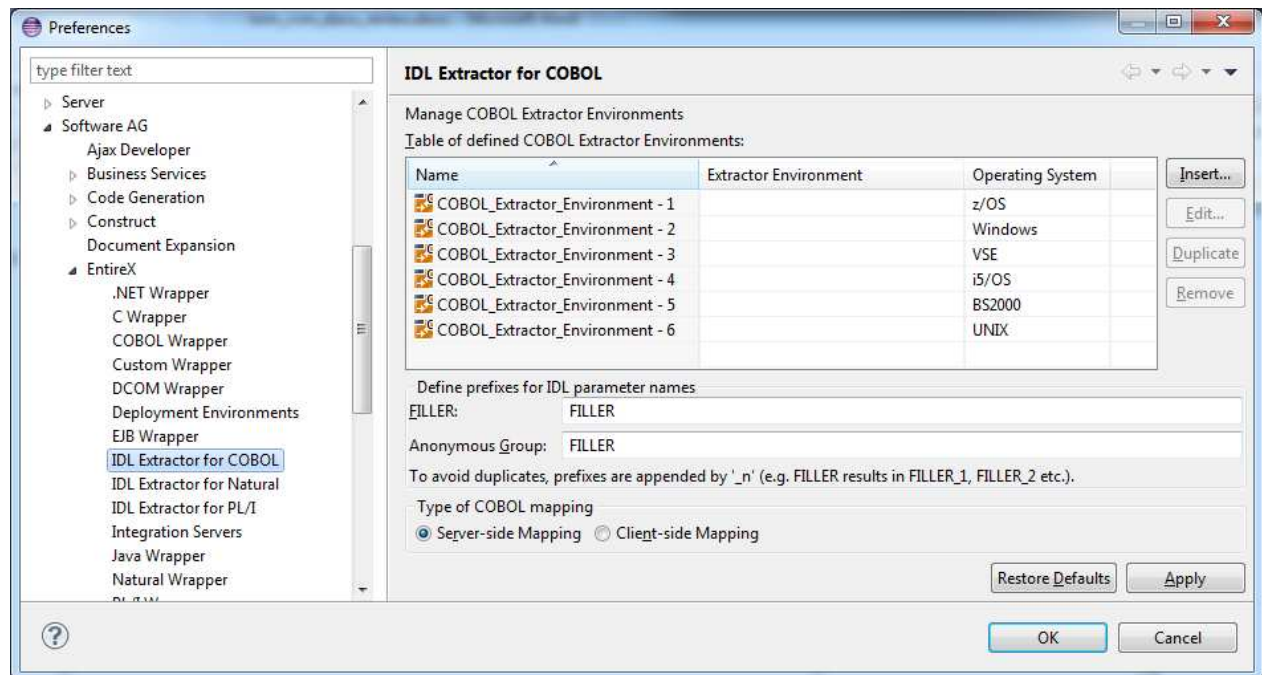
IDL Extractor for COBOL Preferences

- Create New Local Extractor Environment (z/OS, z/VSE, BS2000/OSD and IBM i)
- Create New Local Extractor Environment for Micro Focus (UNIX and Windows)
- Create New Remote Extractor Environment (z/OS)
- Create New Remote Extractor Environment (BS2000/OSD)

The IDL Extractor for COBOL preferences are used to manage COBOL extractor environments. A COBOL extractor environment provides defaults for the extraction and refers to COBOL programs and copybooks

- stored locally on the same machine where the EntireX Workbench is running, a so-called local COBOL extractor environment, or
- stored remotely on a host computer, a so-called remote COBOL extractor environment. The Extractor Service is required to access COBOL programs and copybooks remotely with a remote COBOL extractor environment. The Extractor Service is supported on operating systems z/OS and BS2000/OSD. See *Extractor Service* in the z/OS Batch | IMS | BS2000/OSD Batch RPC Server documentation.

COBOL extractor environments are offered in the IDL Extractor for COBOL wizard to reference the COBOL programs and copybooks and retrieve defaults for the IDL extraction. To create, edit, duplicate and remove COBOL extractor environments, open the **Preferences** page and use the buttons on the right.



The **Preferences** page contains further settings valid for all COBOL extractor environments:

- **Define prefixes for IDL parameter names**

The defined prefixes are used for *FILLER Pseudo-Parameter*.

- **Type of COBOL mapping**

Every EntireX Workbench (Eclipse) workspace is either in client-side mapping mode (generating EntireX Workbench server mapping files with extension .cvm) or server-side mapping mode (generating EntireX Workbench server mapping files with extension .svm). See *Server Mapping Files for COBOL* for an introduction. You can adjust the mode here, which will also set the mode of the COBOL Wrapper to the same value. See *Generation Settings - Preferences* in the COBOL Wrapper documentation.

Server mapping files are generated automatically for RPC servers if required. See *When is a Server Mapping File Required? - IDL Extractor for COBOL* in the *EntireX Workbench* documentation.

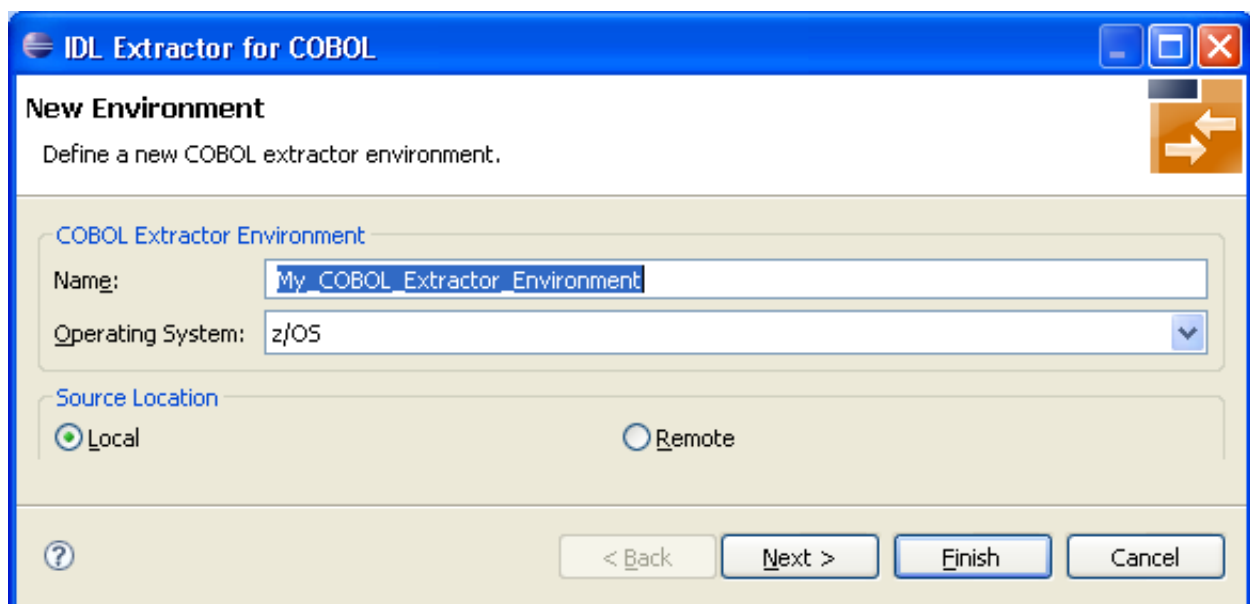
Create New Local Extractor Environment (z/OS, z/VSE, BS2000/OSD and IBM i)

This section describes the four steps for creating a new local COBOL extractor environment to extract z/OS, z/VSE, BS2000/OSD or IBM i COBOL programs.

- Step 1: Define the New Local Environment
- Step 2: Define the Default Settings
- Step 3: Define the Local Extractor Environment
- Step 4: Define the Local Copybook Locations

Step 1: Define the New Local Environment

On the New Environment page you can specify **Name** and **Operating system**.



> To define the new environment settings

1. Enter a unique **Name** for the COBOL extractor environment.
2. Select the **Operating system**.
3. Select "Local" for **Source Location**.

Step 2: Define the Default Settings

The **Default Settings** page provides defaults for *Step 4: Define the Extraction Settings and Start Extraction* in *Using the IDL Extractor for COBOL - Overview*. You can set defaults for interface type and COBOL to IDL mapping.

Default Settings
Define the default settings for the COBOL extractor environment.

COBOL Extractor Environment
Name:

COBOL Source Characteristics
Operating System:
Interface Type:

IMS MPP message interface (IMS Connect)
Transaction field length in COBOL source:
☒ Ask for Transaction Name - specification at design time
☐ Create IDL parameter for Transaction Name - specification at runtime

IMS BMP with standard linkage calling convention
IMS PSB List:

CICS with Channel Container calling convention
Channel Name:

COBOL to IDL Mapping
☒ Map alphanumeric fields (PICTURE X, A, G, N) to
☒ Strings with variable length (Java, .NET, DCOM, C, Natural, SOAP, XML)
☐ Strings with fixed length (COBOL, PL/I)
☐ Map FILLER fields to IDL

? < Back Next > Finish Cancel

➤ **To define the default extraction settings**

1. Select the default **Interface Type**. See *Supported COBOL Interface Types*.
2. Depending on the interface type, additional information can be set. For interface type
 - *CICS with Channel Container Calling Convention*, you can set the channel name.
 - *IMS MPP Message Interface (IMS Connect)*, you can set defaults for the transaction name. Possible options are a constant transaction name defined during extraction process or an IDL parameter to be specified at runtime.
 - *IMS BMP with Standard Linkage Calling Convention*, you can set the default for **IMS PSB List**.

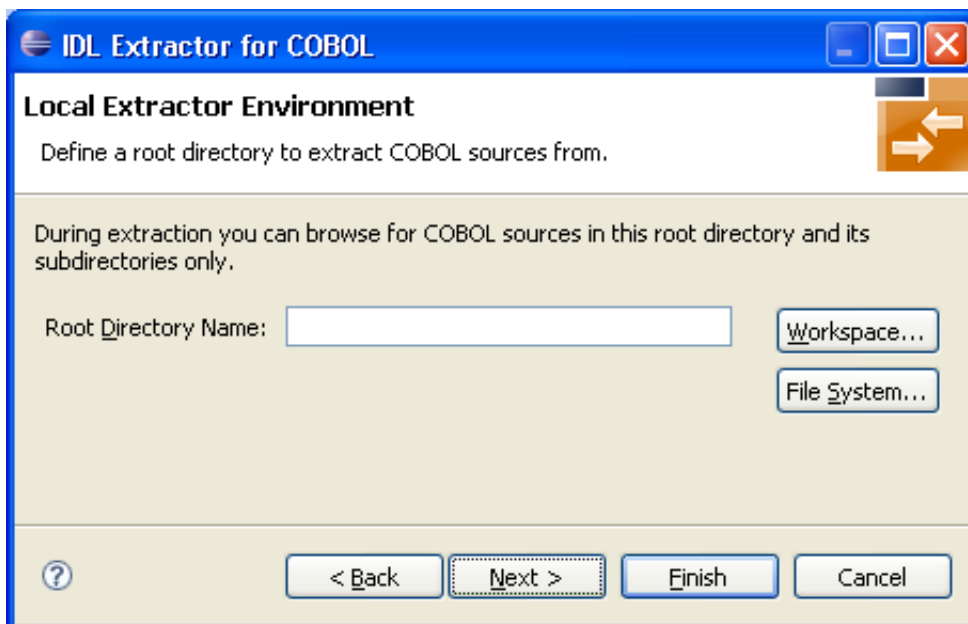
For more information refer to *Step 4: Define the Extraction Settings and Start Extraction*.

3. Specify a default value for **COBOL to IDL Mapping**. See *COBOL to IDL Mapping*.

Press **Next** and continue with *Step 3: Define the Local Extractor Environment* below.

Step 3: Define the Local Extractor Environment

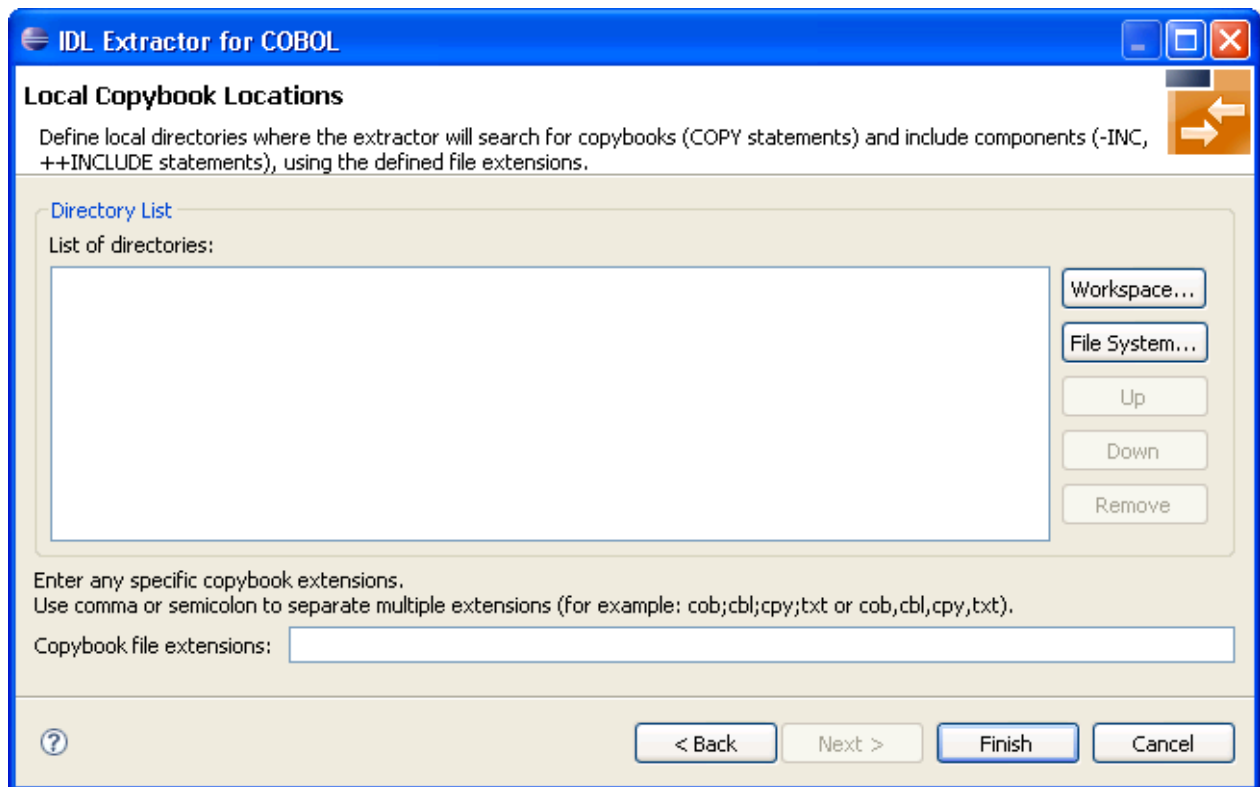
On the **Local Extractor Environment** page you can provide a default directory name for the COBOL programs:



1. Choose **Workspace...** or **File System...** to browse for a folder.
2. Choose **Next** and continue with *Step 4: Define the Local Copybook Locations* below.

Step 4: Define the Local Copybook Locations

On the **Local Copybook Location** page you can add directories that will be used to resolve copybooks. Copybooks and members referenced with COPY statements, CA Librarian – INC statements and CA Panvalet ++INCLUDE statements will be searched for in the defined local directories:



The file extensions for copybooks can also be entered. If no extensions are specified, the IDL Extractor for COBOL wizard will try to locate copybooks without any file extensions.

Press **Workspace...** or **File System...** to browse for a folder.

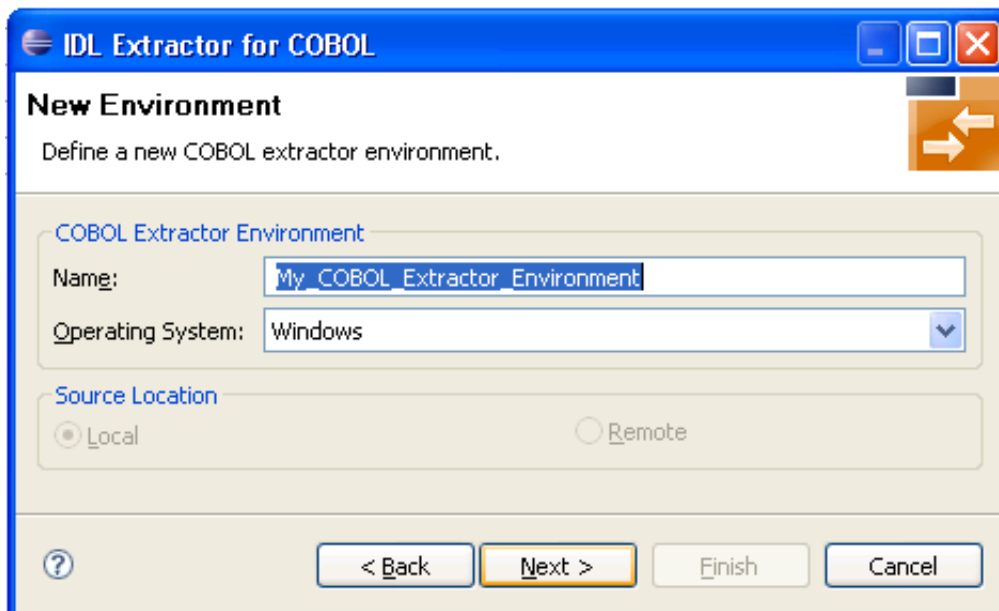
Press **Finish**.

Create New Local Extractor Environment for Micro Focus (UNIX and Windows)

This section describes the four steps for creating a new local COBOL extractor environment to extract Micro Focus COBOL programs.

- Step 1: Define the New Local Environment
- Step 2: Define the Default Settings
- Step 3: Define the Local Extractor Environment
- Step 4: Define the Local Copybook Locations

Step 1: Define the New Local Environment



On the **New Environment** page you can specify the **Name** and **Operating system**. Only UNIX and Windows operating systems can be used for Micro Focus COBOL.

> To define the default extraction settings

1. Enter a unique name for the COBOL extractor environment.
2. Select the **Operating system** "UNIX" or "Windows".
3. Select "Local" for **Source location**.

Step 2: Define the Default Settings

The **Default Settings** page provides defaults for *Step 4: Define the Extraction Settings and Start Extraction* in *Using the IDL Extractor for COBOL - Overview*.

You can set defaults for **Interface type**, **Compiler directives** and **COBOL to IDL Mapping**.

➤ To define the default extraction settings

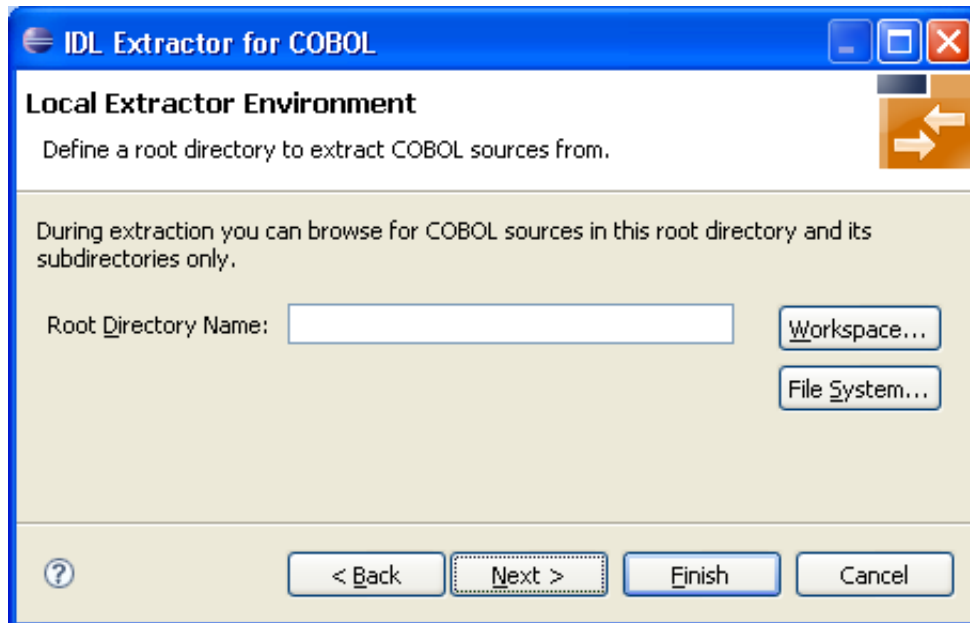
1. Refer to *Step 2: Define the Default Settings* for a local extractor environment for field descriptions. Select the default **Interface type**. See *Supported COBOL Interface Types*.
2. Select a value for **Meaning of PIC N without USAGE clause**. Select "NATIONAL" for IDL mapping to data type U, or "DISPLAY-1" (DBCS) for data type K. "DISPLAY-1" (DBCS) is the default, which is the same as Micro Focus compilers. See also *COBOL to IDL Mapping*.
3. Select the source code format. Use "Fixed" (default) or "Variable" to change the interpreted source code columns. Refer to your Micro Focus documentation for further information.
4. Enter the **TAB stop width**. Typical values are 4 or 8 (default).
5. Specify the default **COBOL to IDL Mapping**. See *COBOL to IDL Mapping*.

6. Choose **Next** and continue with the *Step 3: Define the Local Extractor Environment* below.

Refer to *Step 2: Define the Default Settings* for a local extractor environment for field descriptions.

Step 3: Define the Local Extractor Environment

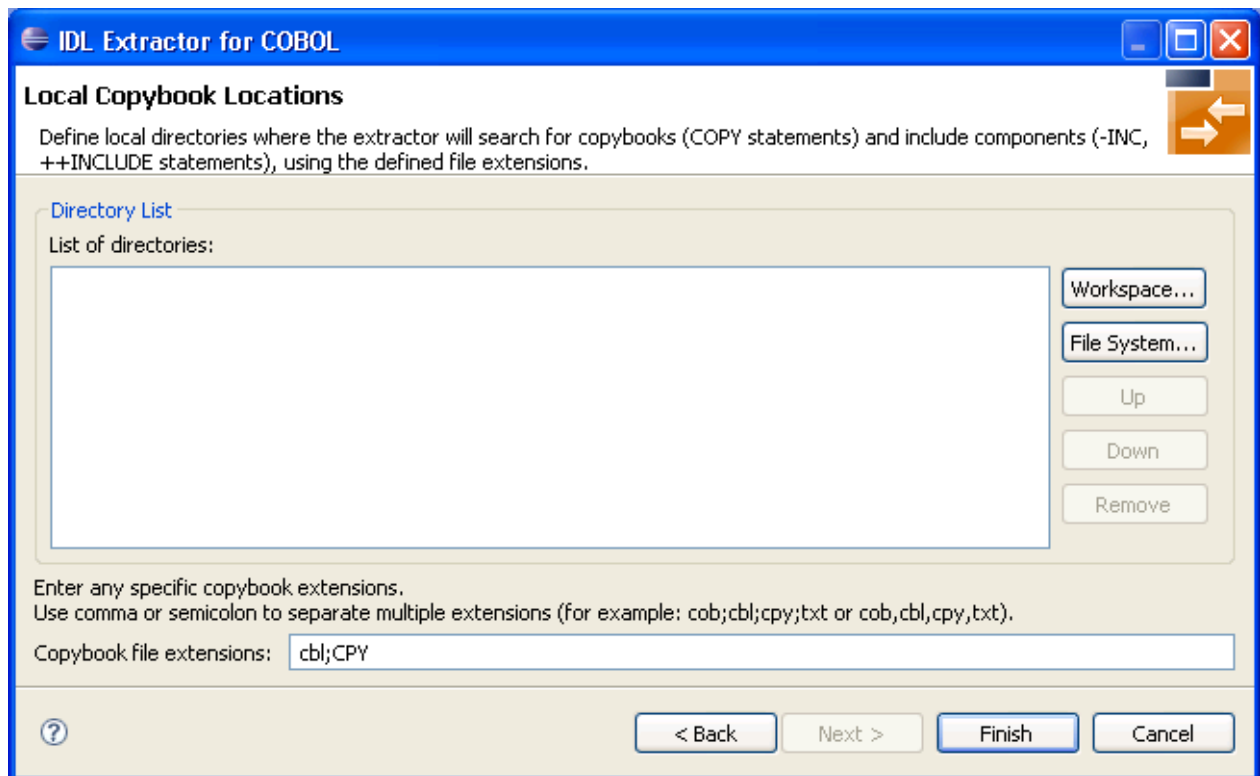
On the **Local Extractor Environment** page you can provide a default directory name for the COBOL programs:



1. Choose **Workspace...** or **File System...** to browse for a folder.
2. Choose **Next** and continue with *Step 4: Define the Local Copybook Locations* below.

Step 4: Define the Local Copybook Locations

On the **Local Copybook Location** page you can add directories that will be used to resolve copybooks. Copybooks and members referenced with COPY statements, CA Librarian – INC statements and CA Panvalet ++INCLUDE statements will be searched for in the defined local directories:



The file extensions for copybooks can also be entered. If no extensions are specified, the IDL Extractor for COBOL wizard will try to locate copybooks without any file extensions.

Choose **Workspace...** or **File System...** to browse for a folder.

Choose **Finish**.

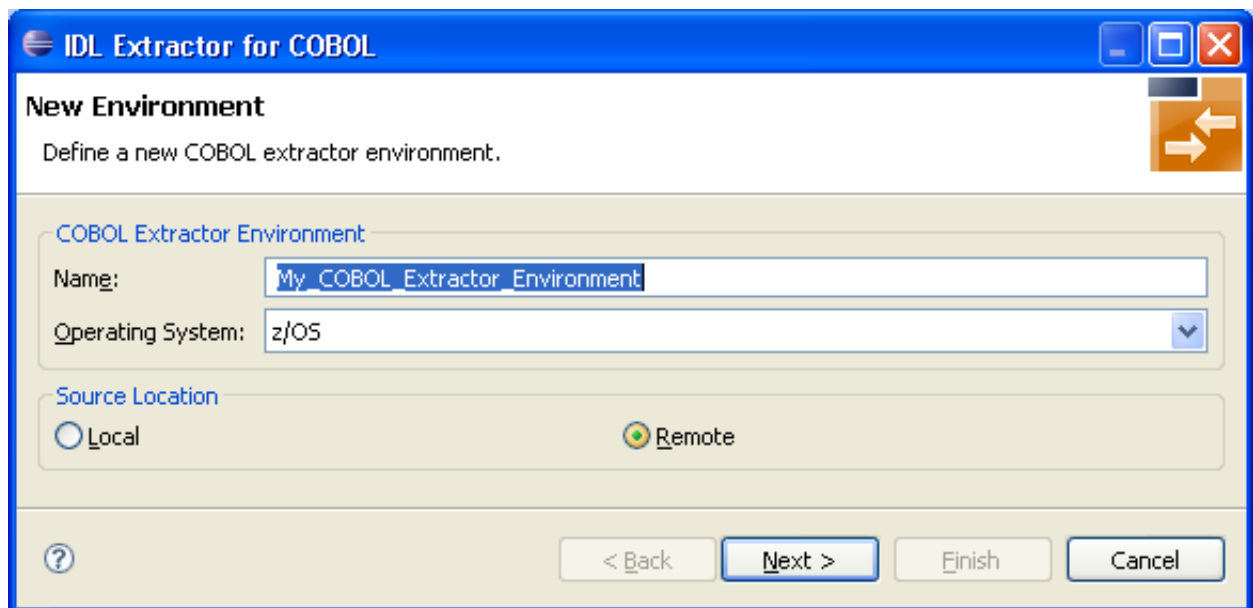
Create New Remote Extractor Environment (z/OS)

This section describes the four steps for creating a new remote COBOL extractor environment to extract remotely z/OS COBOL programs stored in partitioned data sets or CA Librarian data sets.

- Step 1: Define the New Remote Environment
- Step 2: Define the Default Settings
- Step 3: Define the Remote Extractor Environment
- Step 4: Define the Remote Copybook Locations

Step 1: Define the New Remote Environment

On the **New Environment** page you can specify **Name**, **Operating system** and the **Remote Source Location**.



The screenshot shows the 'New Environment' dialog box in the IDL Extractor for COBOL application. The dialog has a blue title bar with the text 'IDL Extractor for COBOL'. Below the title bar, the text 'New Environment' is displayed, followed by the instruction 'Define a new COBOL extractor environment.' The main area of the dialog is divided into two sections. The first section, titled 'COBOL Extractor Environment', contains a 'Name:' label and a text box with the value 'My_COBOL_Extractor_Environment', and an 'Operating System:' label and a dropdown menu with the value 'z/OS'. The second section, titled 'Source Location', contains two radio buttons: 'Local' (which is selected) and 'Remote'. At the bottom of the dialog, there are four buttons: '< Back', 'Next >', 'Finish', and 'Cancel'. A help icon (?) is located to the left of the 'Back' button.

➤ **To define the new environment settings**

1. Enter a unique name for the COBOL extractor environment.
2. Select the **Operating system**.
3. Select "Remote" for **Source location**.

Step 2: Define the Default Settings

The **Default Settings** page provides defaults for *Step 4: Define the Extraction Settings and Start Extraction* in *Using the IDL Extractor for COBOL - Overview*.

You can set defaults for **Interface Type** and **COBOL to IDL Mapping**.

IDL Extractor for COBOL

Default Settings
Define the default settings for the COBOL extractor environment.

COBOL Extractor Environment
Name:

COBOL Source Characteristics
Operating System:
Interface Type:

IMS MPP message interface (IMS Connect)
Transaction field length in COBOL source:
☒ Ask for Transaction Name - specification at design time
☐ Create IDL parameter for Transaction Name - specification at runtime

IMS BMP with standard linkage calling convention
IMS PSB List:

CICS with Channel Container calling convention
Channel Name:

COBOL to IDL Mapping
Map alphanumeric fields (PICTURE X, A, G, N) to
☒ Strings with variable length (Java, .NET, DCOM, C, Natural, SOAP, XML)
☐ Strings with fixed length (COBOL, PL/I)
☐ Map FILLER fields to IDL

> To define the default extraction settings

- See *Step 2: Define the Default Settings* in section *Create New Local Extractor Environment (z/OS, z/VSE, BS2000/OSD and IBM i)*.

Press **Next** and continue with *Step 3: Define the Remote Extractor Environment* below.

Step 3: Define the Remote Extractor Environment

The connection to the Extractor Service to browse for COBOL programs is defined on the **Remote Extractor Environment** page. See *Extractor Service*.

IDL Extractor for COBOL

Remote Extractor Environment

Define an extractor service to extract remote COBOL sources from PDS or CA-Librarian datasets. Specify broker parameters and filter settings.

Broker Parameters

Broker ID: *

Server Address: * Edit...

Timeout (Seconds): 60

EntireX Authentication

User ID: Password:

RPC Server Authentication

RPC User ID: RPC Password:

Filter Settings

Use filter settings to restrict browsing with a dataset name (DSN), or high level qualifier (HLQ). Optionally, give member name.

Dataset Name or HLQ: *

Member Name:

? < Back Next > Finish Cancel

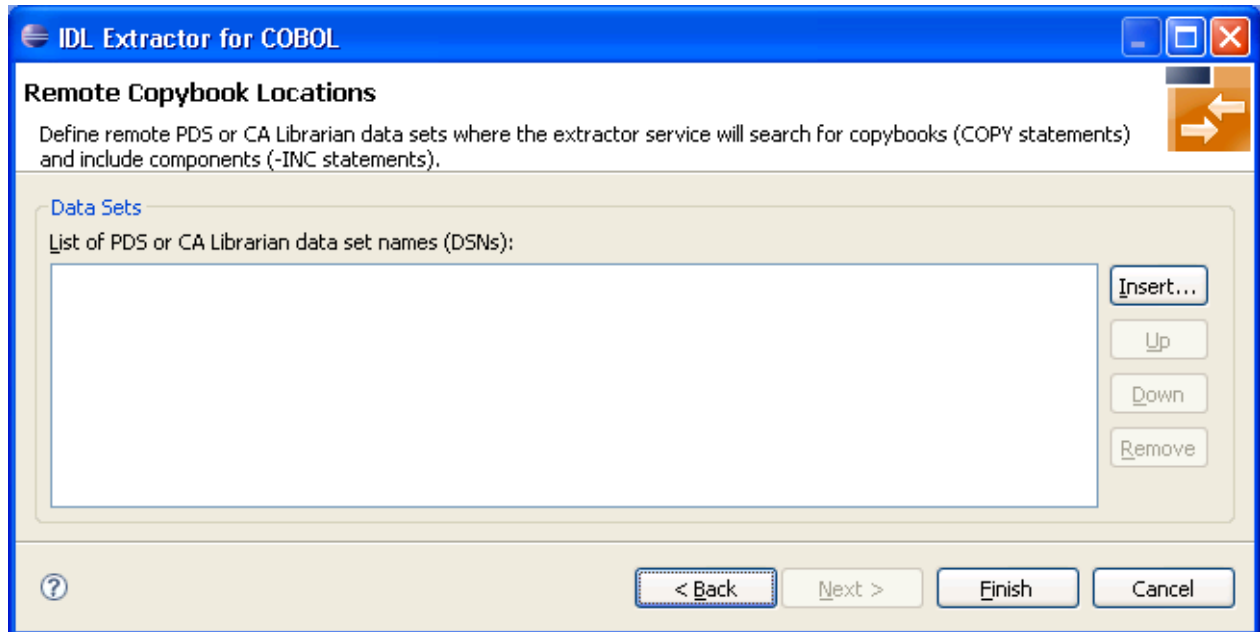
➤ **To define the remote extractor environment**

1. Under **Broker Parameters**, enter the required fields Broker ID and Server Address, which will have the default format brokerID@serverAddress. The last part (broker service) of the server address must always be "EXTRACTOR". The timeout value must be in the range 1-9999 seconds (default is 60).
2. The **EntireX Authentication** parameters describe the settings for the broker. See *Authentication of User*.
3. The **RPC Server Authentication** parameters describe the settings for the RPC server. See *Administering the Batch RPC Server | Administering the EntireX RPC Server under z/OS IMS*.
4. A high-level qualifier is required in the **Data Set Name or HLQ** field. The extractor service will then offer only data sets with this high-level qualifier.
5. In the **Member Name** field you can provide a prefix for the partitioned data set or CA Librarian members. The extractor service will then offer only members beginning with this prefix.

Press **Next** and continue with *Step 4: Define the Remote Copybook Locations* below.

Step 4: Define the Remote Copybook Locations

On the **Remote Copybook Location** page you can add PDS or CA Librarian data sets that will be used to resolve copybooks. Copybooks and members referenced with COPY statements and CA Librarian -INC statements will be searched for in the defined remote data sets:



Press **Insert...** to add a new data set entry in the table. Use **Remove**, **Up** and **Down** to manage the data set list.

Press **Finish**.

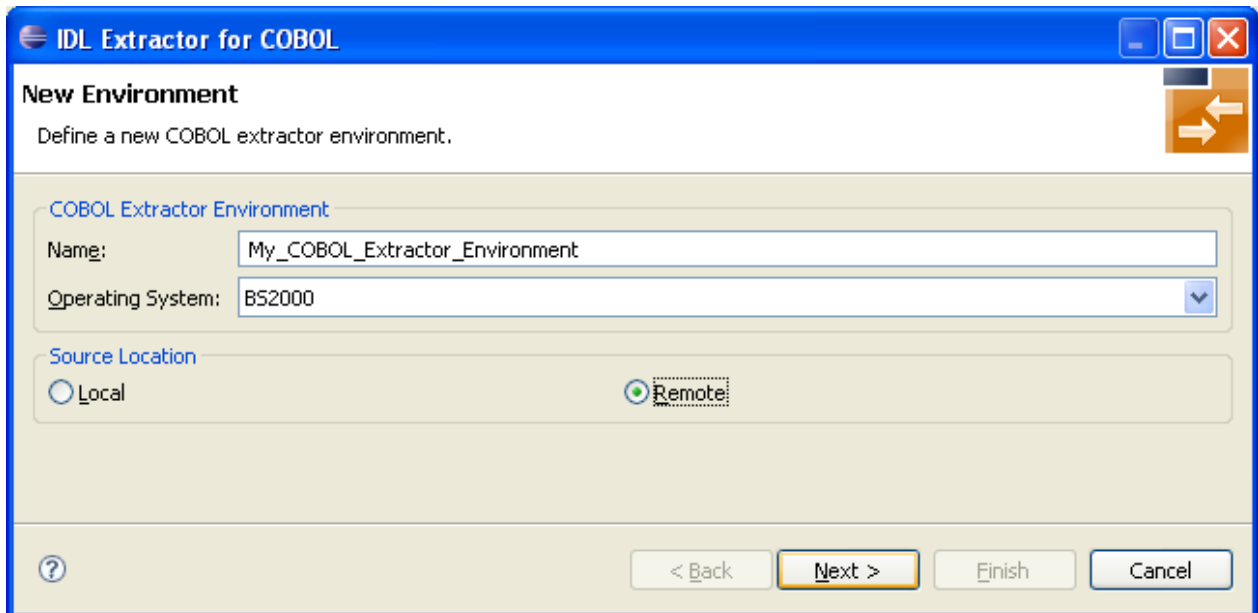
Create New Remote Extractor Environment (BS2000/OSD)

This section describes the four steps for creating a new remote COBOL extractor environment to extract remotely BS2000/OSD COBOL programs stored in LMS libraries.

- Step 1: Define the New Remote Environment
- Step 2: Define the Default Settings
- Step 3: Define the Remote Extractor Environment
- Step 4: Define the Remote Copybook Locations

Step 1: Define the New Remote Environment

On the **New Environment** page you can specify **Name**, **Operating system** and the **Remote Source Location**.



The screenshot shows a Windows-style dialog box titled "IDL Extractor for COBOL". The main heading is "New Environment" with a subtitle "Define a new COBOL extractor environment." Below this, there are two sections. The first section, "COBOL Extractor Environment", contains a text field for "Name:" with the value "My_COBOL_Extractor_Environment" and a dropdown menu for "Operating System:" with the value "BS2000". The second section, "Source Location", contains two radio buttons: "Local" (which is unselected) and "Remote" (which is selected). At the bottom of the dialog, there are four buttons: "< Back", "Next >" (which is highlighted with a yellow border), "Finish", and "Cancel".

➤ **To define the new environment settings**

1. Enter a unique name for the COBOL extractor environment.
2. Select the **Operating system**.
3. Select "Remote" for **Source location**.

Step 2: Define the Default Settings

The **Default Settings** page provides defaults for *Step 4: Define the Extraction Settings and Start Extraction* in *Using the IDL Extractor for COBOL - Overview*.

You can set defaults for **Interface Type** and **COBOL to IDL Mapping**.

The screenshot shows the 'Default Settings' dialog box for 'IDL Extractor for COBOL'. The dialog has a blue title bar and standard Windows window controls. It contains three main sections: 'COBOL Extractor Environment' with a 'Name' field set to 'My_COBOL_Extractor_Environment'; 'COBOL Source Characteristics' with 'Operating System' set to 'BS2000' and 'Interface Type' set to 'BATCH with standard linkage calling convention'; and 'COBOL to IDL Mapping' with radio buttons for 'Strings with variable length' (selected) and 'Strings with fixed length', and a checkbox for 'Map FILLER fields to IDL' which is unchecked. At the bottom are buttons for '< Back', 'Next >', 'Finish', and 'Cancel'.

➤ **To define the default extraction settings**

1. Select the default **Interface Type**. See *Supported COBOL Interface Types*.
2. Specify the default **COBOL to IDL Mapping**. See *COBOL to IDL Mapping*.

Press **Next** and continue with *Step 3: Define the Remote Extractor Environment* below.

Step 3: Define the Remote Extractor Environment

The connection to the Extractor Service to browse for COBOL programs is defined on the **Remote Extractor Environment** page. See *Extractor Service* in the BS2000/OSD Batch RPC Server documentation.

IDL Extractor for COBOL

Remote Extractor Environment

Define an extractor service to extract remote COBOL sources from LMS libraries. Specify broker parameters and filter settings.

Broker Parameters

Broker ID: *

Server Address: * Edit...

Timeout (Seconds): 60

EntireX Authentication

User ID:

Password:

RPC Server Authentication

RPC User ID:

RPC Password:

Filter Settings

Use filter settings to restrict browsing with a LMS library name, or high level qualifier (HLQ). Optionally, give element (S) name.

LMS Library Name or HLQ: *

Element (S) Name:

? < Back Next > Finish Cancel

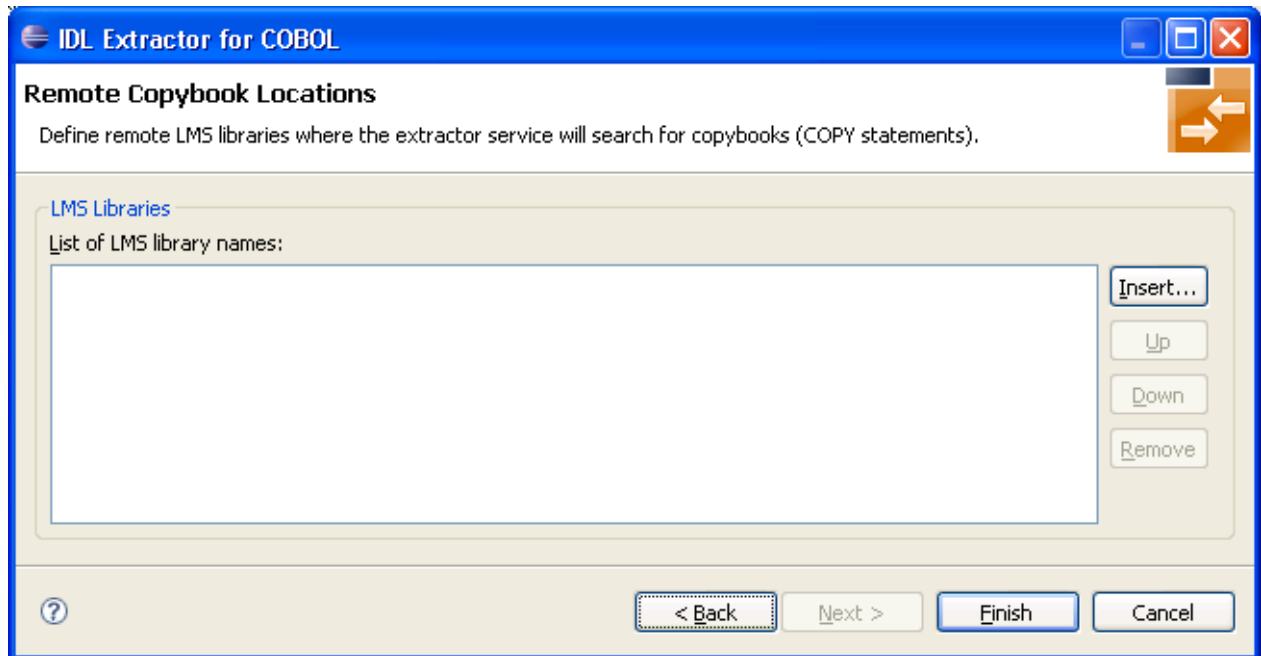
➤ **To define the remote extractor environment**

1. Under **Broker Parameters**, enter the required fields Broker ID and Server Address, which will have the default format brokerID@serverAddress. The last part (broker service) of the server address must always be "EXTRACTOR". The **Timeout** value must be in the range 1-9999 seconds (default is 60).
2. The **EntireX Authentication** parameters describe the settings for the broker. See *Authentication of User*.
3. The **RPC Server Authentication** parameters describe the settings for the RPC server. See *Configuring the RPC Server*.
4. A high-level qualifier can be entered in the **LMS Library Name or HLQ** field. The extractor service will then offer only LMS libraries with this high-level qualifier. You can use wildcard notation with asterisk to specify a range of values.
5. In the **Element Name** field you can provide a prefix for LMS library source elements. The extractor service will then offer only COBOL programs beginning with this prefix.

Press **Next** and continue with *Step 4: Define the Remote Copybook Locations* below.

Step 4: Define the Remote Copybook Locations

On the **Remote Copybook Location** page you can add directories that will be used to resolve copybooks. Copybooks referenced with COPY statements will be searched for in the defined remote LMS libraries:



Press **Insert...** to add a new data set entry in the table. Use **Remove**, **Up** and **Down** to manage the list of LMS libraries.

Press **Finish**.