X-Analysis - Initialisation

Software Version 13.3.02, 20230822

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Preface

About this guide

Initializing X-Analysis describes how to carry out the initialization of the product along with important information about how to obtain the License Code. It discusses the following topics:

* Post-installation activities
* Configuration of the cross-reference library
* Working with the X-Analysis client

Version

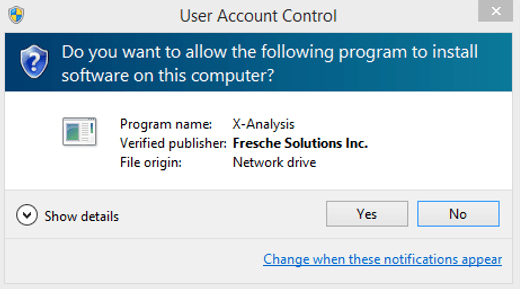
This is version 13.3.02 of the Initializing X-Analysis guide.

How to use this guide

Each chapter in this guide focuses on how to initialize X-Analysis. The topics progress from setting out the post-installation activities to other topics that deal with arranging the Library List, providing information for libraries, and then generating the data model. Lastly, there is a brief section that covers the usage of X-Analysis from the client-end.

For more information on all the X-Analysis modules, please contact your Fresche Solutions representative, or visit us at:  
<https://freschesolutions.com/products/x-analysis-suite/>

|  |  |
| --- | --- |
|  | The X-Analysis library structure has changed from V12.0.  The new library being used is XAPROD.  To check out the minimum supported eclipse version for X-Analysis, refer to the section Supported versions of Eclipse and Rational products (RDi) in the document “X-Analysis\_Installation\_And\_Upgrade\_Guide” for more details.  X-Analysis client release 10.x onwards is digitally signed |



User Account Control

What is new in the latest release?

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|  | For this release, we updated this document. This release has the following changes: |

* [Generating the Data Model](#_Ref-368614919): Revised the topic to add optional parameters for Option 13 on the Work with X-Analysis Applications menu.
* [Generating the Data Model](#_Ref-368614919): Revised the image to replace the option in XREFMENU command screen 7=X-A Log to 7=Log.
* [Library Information](#_Ref1714358765), [Initialization](#_Ref1638961236), and [Server Side](#_Ref1781898249): Revised the image to remove the text /4 from all the XREFMENU command screen.
* [Server Side](#_Ref1781898249): Replaced the image XREFMENU command screen to highlight column headers on the main cross-reference list.
* [Server Side](#_Ref1781898249): Replaced the image for option 77 in the XREFMENU command screen to display additional option 1 with X for the user to select any X-Analysis version.
* [Server Side](#_Ref1781898249): Replaced the image for option 77 in the XREFMENU command screen to display the X-Analysis version in reverse order (highest version at the top).
* [Server Side](#_Ref1781898249): Replaced the image XREFMENU command screen to remove the couple of empty rows from the main cross-reference landing page.
* [Initialization](#_Ref1638961236) and [Server Side](#_Ref1781898249): Replace the alert box for the parameters Use Data Collection API and API Server Port with a simple info box.
* [Prerequisites – SQL Indexing](#_Ref-1420159716): Revised the topics Prerequisites and Configuration Properties to update the configuration properties to match the user's own/specific environment.

Post-installation Activities

Obtaining the License File

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|  | Refer to the section Obtaining the License File in the document “X-Analysis\_User\_Manual” for more details. |

Applying the License File

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|  | Refer to the section Applying the License File in the document “X-Analysis\_User\_Manual” for more details. |

User Profile Authority Requirements

The initialization process makes extensive use of various IBM i commands like CRTDUPOBJ, CRTPF, CRTLF, DLTF, RGZPFM, RTVMBRD, CRTLIB, CLRLIB, RSTLIB, DLTLIB, DMPOBJ, DSPFD, DSPFFD, DSPPGMREF, DSPDBR, CLRPFM, CPYF, CRTDTAARA, RTVOBJD, ALCOBJ, DLCOBJ, DLTUSRIDX, DSPOBJD, RTVSYSVAL, RTVDTAARA, and RSTOBJ.

To run the X-Analysis jobs on an IBM i machine:

* To use X-Analysis, the user's profile or group profile must be part of the XAAUTHLST authority list.
* The profile must have a \*USE authority to all the commands listed above.
* For the Source and the Object libraries specified during the setup – The profile used requires object operational (\*OBJOPR) authority to all the programs and the files in these libraries. The profile also requires \*EXECUTE authority on all these libraries.
* For the X-Analysis cross-reference library – The profile used must have full rights to this library.

Among the many ways to setup X-Analysis security, refer to some simple examples:

* Create a group profile (XAUSERS) and add it to the XAAUTHLST authorization list with \*ALL access.
* Add the XAUSERS group profile to the user profile of anyone who needs to access X-Analysis.

Configuring Application Libraries

Prepare the application libraries on the IBM i on which the user wants to create the cross-reference library. The cross-reference library created using X-Analysis is listed on the Client software.

Configuring Cross-Reference Libraries

After having the configured application libraries to use, run the Work with X-Analysis/4 Applications screen to add and initialize the cross-reference library. For more details, refer to the [Configure Cross-Reference Library](#_Ref-1844219804) section.

Working With the X-Analysis Client Software

After configuring the cross-reference library and installing the X-Analysis Client software, the user can start using X-Analysis. Start X-Analysis Client on the PC and provide the connection details to connect to the IBM i. Once the connection gets established, the user will see the configured cross-reference library/libraries on the X-Analysis Client. Refer to the [Work with X-Analysis Client](#_Ref513882863) section.

Configuring Cross-Reference Libraries

The user should build the cross-reference library, that is, the application repository, before starting the X-Analysis Client Software. The initialization process sets up the cross-reference library. Use the X-Analysis Application Overview interface to initialize the X-Analysis libraries. Execute the following steps before opting for the initialization process:

* Set the library list
* Work with X-Analysis/4 Applications
* Library Information

Set the Library List

Change the Library List to ensure the following sequence:

* XAPROD
* QGPL
* QTEMP

Use the EDTLIBL command to set the Library List.

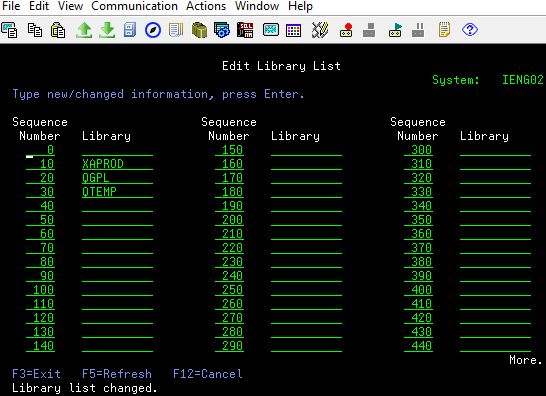


Fig. 1.1.1 – EDTLIBL command screen

Work with X-Analysis Applications

After setting the Library List, enter the XREFMENU command on the IBM i and press ENTER. Now the user will see the following screen.

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| Fig. 1.2.1 – XREFMENU Command Screen |

Choose option 99=Work with against the X-ref library where the user wants to work with. Press ENTER to get the Work with X-Analysis Applications screen.

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| Fig. 1.2.2 – Work with X-Analysis Applications |

The first step is to add a new cross-reference library. Press F6 to add a new cross-reference library.

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| Fig. 1.2.3 – F6 – Add Application screen |

Pressing F6 will add an entry to the list of the X-Analysis Applications and create a new (empty) cross-reference library. Specify a cross-reference library name (for example XAN4CDXA). Optionally, specify something in the Text and Company/division fields, as shown in the screen below.

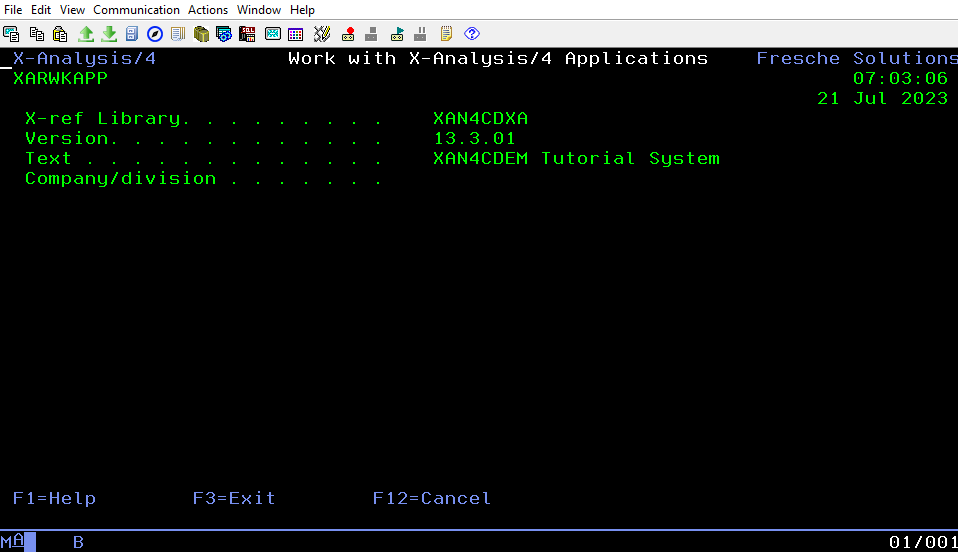


Fig. 1.2.4 – Screen showing the added Application

Press ENTER to proceed.

Choose option 4=Delete from the XREFMENU command screen against the X-ref library where the user wants to delete a cross-reference.

Press ENTER to proceed.

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|  | Option 4=Delete does not delete the cross-reference libraries physically from the IBM i box. It will be the responsibility of the user to remove the cross-reference libraries. Refer to the section Removing the Cross-Reference Libraries in the document "X-Analysis Installation and Upgrade Guide "for more details. |

Library Information

In the previous step, we successfully added a new cross-reference library. Now we can provide the Library information.

We need to add the Source Library and the Object Library to the cross-reference library. The initialization process generates the repository by reading these libraries.

Select Option 8 to assign the Source, the Object, and/or the Model (2E) libraries.

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| Fig. 1.3.1 – Work with X-Analysis Application – Application added |

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|  | The sequence of the libraries is important because the objects and the sources are given preference according to the order of the libraries. Only the first occurrence of the object/source gets reported, but the subsequent occurrences are removed by the initialization process. |

Press F6 to add the names of the Source / Object / Model libraries associated with the application, and press ENTER. Repeat the step if the application consists of multiple libraries.

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| Fig. 1.3.2 – Work with X-Analysis Application – Add Library Screen |

The Type may be any one of the following:

* O=Object
* S=Source
* M=Model

Source & Object Libraries

The source library contains the un-compiled source files and the object library contains the compiled objects for the same.

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|  | Specify the libraries containing both source and object as S and O types respectively. See the setting on the ‘XAN4CDXA – Tutorial Application’. It has XAN4CDEM specified as ‘O’ and ‘S’ types. |

Cool/2E (Synon Model) Libraries

Specify the model library/libraries to analyze a Synon application. The user can achieve this by setting the library type as "M". The initialization process picks the data model information from the Synon model library/libraries while building the cross-reference repository.

Press F3 when the libraries are included.

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|  | X-Analysis references the Synon Product library available in the XA2EPROLIB data area. Users should set it to Y2SY or U2SY depending on the Synon CA 2E version they are on. By default, it is set to Y2SY.  If a user is using the National Language Support Synon Product Library (for example Y2SYVFRN2) and not the English one (that is, Y1SY & Y2SY) then that particular Product Library must be updated in data area XA2EPROLIB in library XADTAXXXXX.  IBM has documented the problem with \*QRYDFN objects, created before V7.2, and affects the metadata that is stored in the object. This issue prevents X-Analysis from retrieving accurate information about the tables used. If the system is running V6.1 or V7.1 and it contains \*QRYDFN objects, then before initializing the application cross reference, please follow the instructions given here:  <https://www-01.ibm.com/support/docview.wss?uid=nas8N1021173> |

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| Setup SQL Indexing  The application source libraries may have standalone SQL members or embedded SQL members. This section documents the prerequisites and the configurations required for cross-referencing such SQL code. Usually, the bundled configurations suffice but can be changed if required. |

Prerequisites

* SQL indexing requires Java version 8 or above. From version 13.2.11, SQL cross-referencing will work even when Java 8 or above is not a default on the IBM i machine.

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|  | If this prerequisite is not ensured, then RPG Embedded SQL will not be cross-referenced, and for SQL members, the previous (limited) cross-referencing will execute. |

* Before running the X-Analysis initialization, ensure that the user’s home directory exists, for example /home/JOHN.
* The user must alter the list of member types that contains SQL/DDL-related information. Refer to the section [Configuration Properties](#_Ref-1775108222) to update accordingly the configuration file entries related to MemberTypes support.

Configuration

* Default system wide properties are available under the folder:  
  /XANALYSIS/Vxxxxx/XAParsers/db2sqlparser.configuration.properties – for SQL indexing  
  The properties can be modified in-place and will apply to all the initializations with a specific version on that box.
* Specify the user settings in the user home directory. Custom user settings are not required and are only needed in certain situations. If required, then create the following folders and files in the home directory:  
  .XANALYSIS/db2sqlparser/configuration.properties – for SQL indexing

The system wide properties file can be copied, and the values overridden, as required.

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|  | Defaults will be used from db2sqlparser.configuration.properties when a property is not present in the configuration.properties file. |

Configuration Properties

The following properties can be specified in the db2sqlparser configuration files.

user=xxxxxx  
 password=xxxxxxxx  
 memberTypes='SQL','CR/LF','SQLPRC','SQLUDF','DDL'  
 rpgEsqlMemberTypes=SQLRPGLE, SQLRPG, RPG, RPGLE  
 cblEsqlMemberTypes=CBL, COBOL, SQLCBL, SQLCOBOL, SQLCBLLE  
 clEsqlMemberTypes=CL, CLP, CLLE  
 runsqlstm\_margin=80  
 clearLogBeforeDays=20  
 maxLogFileCount=20

Each property has a specific purpose:

* memberTypes - Member types which will be considered as SQL members - to be parsed by SQL parser. Single or double quotes can be used. Works without quotes also. The values should be comma-separated.

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|  | For the property memberTypes, the user must update the entry to add to the list any SQL member type that matches their environment. Failing to do so will lead to an incomplete analysis of the environment. |

* rpgEsqlMemberTypes - Member types which will be considered as having embedded SQL in RPG.
* cblEsqlMemberTypes - Member types which will be considered as having embedded SQL in Cobol.
* clEsqlMemberTypes - Member types which will be considered as having Dynamic SQL in CL.
* clearLogBeforeDays, maxLogFileCount - Log file deletion settings
* runsqlstm\_margin - RUNSQLSTM margin used in SQL members

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|  | The Username and password are not required and are commented on in the file. These are provided for exceptional situations only. When not specified then the connection is made for the user signed into the IBM i, who is executing the initialization. |

Important Locations

* App data directory: <users-home-dir>/.XANALYSIS
* SQL cross referencing logs are created in these folders:
  + Individual logs are created at the following locations:
    - <users-home-dir>/.XANALYSIS/db2sqlparser/logs
    - <users-home-dir>/.XANALYSIS/esqlparser/logs
* Location of installation files: /XANALYSIS/Vxxxxx/XAParsers
* Default configuration files:
  + /XANALYSIS/Vxxxxx/XAParsers/db2sqlparser.configuration.properties

Initialization

Start the initialization process using option 12 on Work with X-Analysis Applications screen against the cross-reference library for initialization.

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| --- |
| Fig. 2.1.1 – Initialise X-Analysis (XAXREF) |

In case of Synon Model libraries, a user need to specify the model library / libraries to analyze a Synon application. To achieve this the user need to add the library type as "M". The initialization process picks the data model information from the Synon model library / libraries while building the cross-reference repository.

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| Fig. 2.1.2 – XAXREF Command Screen |

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|  | All jobs from X-Analysis are submitted in batch mode. The user can change default job queue (QBATCH) by changing the job description for XAOBJXXXXX/XAN4.  Use the following command to change the job description: WRKJOBD JOBD(XAOBJXXXXX/XAN4)  The user should set both the ‘Generate Business Rules’ & ‘Initialize X-Resize’ parameters to \*NO for faster initialization of the X-Analysis repository. The user can opt to run the two jobs later. |

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| **Initialization criteria** | **Brief Description** |
| X-Analysis Library | The X-Analysis cross-reference library name. |
| Object Libraries | The default value is \*SPECIFIED. It means that X-Analysis will retrieve all the object libraries which have been previously specified (using Option 8). |
| Source Libraries | The default value is \*SPECIFIED. It means that X-Analysis will retrieve all the source libraries which have been previously specified (using Option 8). |
| Index Source Files | Specify whether to create indexes over the source files. These indexes will allow the of "Where Used" data to be displayed immediately. They may be required for the generation of the data model, depending on what options are selected. If the indexes are not built now, they can be built later for an individual Source Member, when they are viewed on the X-Analysis interface.  \*ALL – It will index all source members without checking the change date.  \*UPG – This option is no longer allowed on repositories at 13.2.XX (remains applicable for pre 13.2.00 repo). Instead, the user must use the option \*ALL. |
| Build Data Model | Choose an option to build the data model for an application:  \*YES – Build the data model \*NO – Do not build the data model  The user should have the X-Analysis Professional Module set for this to work. |
| Generate Business Rules | Choose an option to generate the business rules for an application:  \*YES – Generate Business Rules  \*NO – Do not generate Business Rules  The user should have the X-Rules Module/Design recovery set for this to work. If choosing \*YES, modeling should have been already performed or Build Data Model should be \*YES. |
| Initialize X-Resize | If the user take the option to generate the X-Resize Project for an application, then a user can view it through X-Analysis. Select one of the following:  \*YES – Initialize X-Resize Project  \*NO – Do not initialize X-Resize Project  **The user should have the X-Resize Module for this to work.** |
| Include Duplicate Source/Object | If the user has different (duplicate) versions of the same source (s)/ object (s) in different libraries and all such libraries are part of the cross reference, and then the behaviour shall be as follows:  \*NO – The object and source from the topmost library in the library list shall only be processed and become part of the cross-reference library. The duplicate object/source will neither be processed nor shown on Object/Member list.  \*YES – The duplicate objects and members will also get processed and shown on the Object and Member list. The object reference data is extracted on the basis of library sequence in the library list.   |  |  | | --- | --- | |  | When \*YES is selected, the object references shown in the diagrams like Structure Chart Diagram and Data Flow Diagram may show incorrect reference to the duplicate objects. This is a known limitation. | |
| Import 2E Model | \*CODE – For non Synon 2E Model library, the initialization process picks the default value \*CODE.  \*MODEL – In case of Synon model library / libraries while building the cross-reference repository the initialization process picks the data model information and displays the value \*MODEL.   |  |  | | --- | --- | |  | When the user selects a Model library while initializing a X-Analysis cross-reference in that case the default gets selected is \*MODEL. X-Analysis still provides flexibility to change the default to \*CODE with an exception wherein Action Diagram will not be generated. | |

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|  | From 13.0 onwards, \*CHG and \*NO options of ‘Index Source Files’ parameter has been removed from XAXREF command screen.  From 13.2.10 onwards, it is not required for the user to provide a setting regarding the ‘Index Source Files’ parameter as the appropriate decision will be automatically takes placed based on the destination version and the option index source files will not be displayed on the screen. |

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|  | From 13.3.00 onwards, two new options "Use Data Collection API" and "API Server Port" are added to the XAXREF command screen. Currently, these two new options are not ready for consumption. |

Press ENTER to submit a batch job to start the initialization process.

X-Analysis Initialization requires exclusive access to the cross-reference library. So, trying to access it while initialization is being performed will generate the following error from the X-Analysis client. Refer to the screen below.

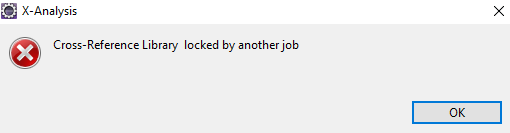


Fig. 2.1.3 Cross-Reference library locked by another job

Generating the Data Model

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|  | The user should only attempt to build the data model, if the user purchased the X-Analysis Professional Module/Modeling Set. |

X-Analysis provides a data-modeling environment on the IBM i. Its re-engineers a current application and then automatically generates the data model and the process model. The (logical) data model or entity relationship diagram is derived from the physical data model implicit in the application.

The Data Model is an essential part of the initialization process. If the Data Model is not generated, then select Option 13 on the Work with X-Analysis Applications menu to generate it.

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| Fig. 3.1.1 – Work with X-Analysis Applications |

Press ENTER.

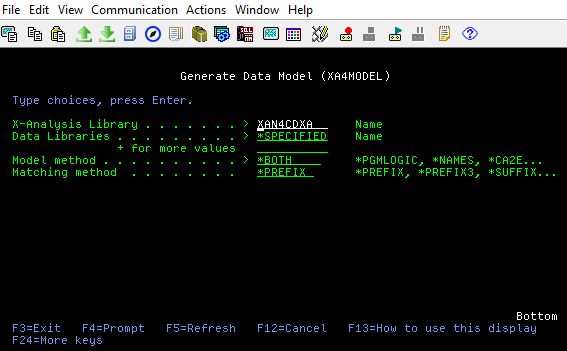


Fig. 3.1.2 – Generate Data Model (XA4MODEL)

Press ENTER to run the modeling command executed in batch mode. This completes the modeling process.

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| **Data Modeling criteria** | **Brief Description** |
| X-Analysis Library | The X-Analysis cross-reference library name. |
| Data Libraries | Specify the data library/libraries names. |
| Model Method | * \*PGMLOGIC – Derive foreign keys from RPG/LE program logic. Relationships are only considered valid when foreign keys match all the components of the owning file's primary identifier. * \*CA2E – Synon is used to generate the data model. Use only the Synon data model database to derive the data model. * \*NAMES – Only derive foreign keys for owning relationships, considering the option specified in the ‘Matching Method’ parameter. * \*BOTH – Derive foreign keys considering the Program Logic and the \*NAMES OR Program Logic and \*CA2E (in case of CA2E application). |

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| Apart from the three main parameters there are two optional data modeling criteria.   |  |  | | --- | --- | | Data Modeling criteria | **Brief Description** | | CA 2E model library | User can provide a Synon model library name in which build model runs. Possible values are, Character value and \*NONE. | | Matching method | * \*PREFIX – The matching method will only throw away the first two characters. * \*PREFIX3 – The matching method will only throw away the first three characters. * \*EXACT – All field names must match precisely; so if field names were CUSNO and CUSNO then \*EXACT would work and a relationship considered. * \*SUFFIX – The matching method will only throw away the last two characters. * \*LAST3 – The matching method will match last three characters. * \*LAST4 – The matching method will match last four characters. | |

The other options from the screen are explained below:

1=Authorities: Use this option to maintain the User Authorities (for details on these, refer to the X-Analysis User Authorities PDF).

2=Change: Use this option to change an application.

3=Copy: Use this option to copy an application.

4=Delete: Use this option to remove the X-Ref library from the application selection list. Note that selecting this option only removes the X-Ref entry from the server.

5=Display: Use this option to display the records from an application.

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| 7=Log: Use this option to view the details of the options taken for the selected X-Ref. |

10=App Areas: Use this option to specify application areas for the selected application.

11=Reports: Use this option to request all the reports relating to application areas and objects.

17=Objects: Use this option to work with Objects for the selected application.

18=Pgm Stds: Use this option to set program standards for variables within programs if the variable entered does not have any object or field description known to X-Analysis.

Working with the X-Analysis Client

Select the X-Analysis for Eclipse shortcut from the X-Analysis program group to start using the X-Analysis Client Software. This invokes the Eclipse workbench.

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|  | Refer to the section Sign-on dialog in the document “X-Analysis\_User\_Manual” to invoke the eclipse workbench. |

The X-Analysis Client software displays the list of application libraries. To work with a specific application/cross-reference, select or expand the cross-reference node.

X-Analysis Multiple Versions

With X-Analysis V12.X.X and onwards, it has become possible for the users to work on multiple versions of X-Analysis. In other words, any previous version like X-Analysis V11.X.X, V12.X.X, and the latest V13.X.X, can be run in parallel. The users have the option to upgrade the selected cross-reference libraries on the latest version while retaining the remaining cross-reference libraries on the previous version.

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|  | From version 13.3.XX, there are no issues when multiple XA plugin perspectives get activated at the same time in the same workspace. For more details refer to the section [Version Compatibility](#_Ref-946954865). |

**Note:**

* The user can install multiple versions of X-Analysis client only on the same Eclipse packaged with RDi or XARuntime.
* X-Analysis Runtime provided with V12.0.0 and above can only be used for running multiple versions of the X-Analysis.

The following section will guide the user through the basics of the multiple version utility of X-Analysis.

Server Side

Version 12.x.x and onwards, the new library to be used is XAPROD. Refer to the section, [Set the Library List](#_Ref1684970975).

The XREFMENU is the master command which manages all the X-Analysis repositories.

On the IBM i main screen, type XREFMENU command and press ENTER. Refer to the figure "Fig. 1.2.1 – XREFMENU Command Screen" in the section [Work with X-Analysis Applications](#_Ref607639473).

Select option 77=Upgrade to upgrade the version and press ENTER. Refer to the below screen that gets displayed:

|  |
| --- |
| Fig. 4.1.1 – Work with X-Analysis Applications |

Type X or 1 (as indicated above) and press ENTER to go on to the XAXREF screen.

Refer to the screen displaying the version before 13.2.9, with the option Index Source Files.

|  |
| --- |
| Fig. 4.1.2 – Initialise X-Analysis (XAXREF) |

Refer to the screen displaying from the version 13.2.10 onwards.

|  |
| --- |
| Fig. 4.1.3 – Initialise X-Analysis (XAXREF) |

Refer to the screen displaying from the version 13.3.00 onwards.

|  |
| --- |
| Fig. 4.1.4 – Initialise X-Analysis (XAXREF) |

Input the initialization options based on the available licenses and press ENTER to submit a batch job.

Another important option from the XREFMENU command screen is option 78=Copy&Initialize. Refer the option in the below screen:

|  |
| --- |
| Fig. 4.1.5 – Work with X-Analysis Applications |

Selecting this option gives the flexibility to copy a repository from the previous version to the latest X-Analysis version. For instance, copy the X-Analysis 11.2.7 cross-reference to V12.X.X, do the testing on V12.X.X while retaining the old version.

When the user selects this option, a copy of the existing/listed application of any X-Analysis version will be made.

* A window (same as the one for option=77) appears requesting the user to choose an X-Analysis version for this new application. Either choose the same version or one higher than the selected application version.

|  |
| --- |
| Fig. 4.1.6 – Work with X-Analysis Applications |

* Make a copy of an existing/listed application of any X-Analysis version.

|  |
| --- |
| Fig. 4.1.7 – Work with X-Analysis Applications |

Fields, namely, X-ref Library ASP device, ASP group, and Other ASP device—display—ASP device value, ASP group, and other ASP device value, respectively. Press F7=ASP Device to select the required ASP device listed below in the screen, and in case there is no ASP device, \*SYSBAS will be the default device as displayed in the screen above.

The following screen will appear only when the X-Analysis version is 13.1.00 or above is installed on the independent ASP group:

|  |
| --- |
| Fig. 4.1.8 – Work with X-Analysis Applications |

* Press ENTER to invoke the Initialization (XAXREF) screen. Note that the Index option is set to \*ALL.

Refer to the screen displaying the version before 13.2.9, with the option Index Source Files.

|  |
| --- |
| Fig. 4.1.9 – Initialise X-Analysis (XAXREF) |

Refer to the screen displaying from the version 13.2.10 onwards.

|  |
| --- |
| Fig. 4.1.10 – Initialise X-Analysis (XAXREF) |

Refer to the screen displaying from the version 13.3.00 onwards.

|  |
| --- |
| Fig. 4.1.11 – Initialise X-Analysis (XAXREF) |

* Input the other initialization options based on the available licenses and press ENTER to submit a batch job.

After the job completes, the copy of the X-Ref library will be shown.

|  |  |
| --- | --- |
|  | From 13.3.00 onwards, two new options "Use Data Collection API" and "API Server Port" are added to the XAXREF command screen. Currently, these two new options are not ready for consumption. |

|  |  |
| --- | --- |
|  | To run a version prior of X-Analysis 12, reset the library list to XAOBJ and then continue using the X4WRKAPP command screen. |

Remember to check any changes, fixes, or enhancements from the before the current version, use the previous and/or the latest X-Analysis client.

Client Side

The following two scenarios will explain the benefits of multiple versions of X-Analysis:

***User scenario 1:***

If the user already has an older version of X-Analysis installed and want to replace it with the new one. First, uninstall X-Analysis using the existing 'Uninstall X-Analysis' shortcut, and then install the new MSI. After successful installation, user can see the new perspective. The new X-Analysis will always be marked with its corresponding version number (for example X-Analysis 12.0.x)

***User Scenario 2:***

The user can directly proceed to install the new MSI even if an older X-Analysis version is installed. On successful installation, two X-Analysis perspectives will be available. Select the Perspective to work with by clicking on Window > Open Perspective > Other.

|  |
| --- |
| From version 13.3.XX, the user can open multiple XA plugin perspectives at the same time in the same workspace. |

After successfully installing the X-Analysis client, the user will see the latest and the previous (if any) version of X-Analysis on the Windows menu. On different OS, the shortcuts will appear as shown below:

* **Windows 7 -**

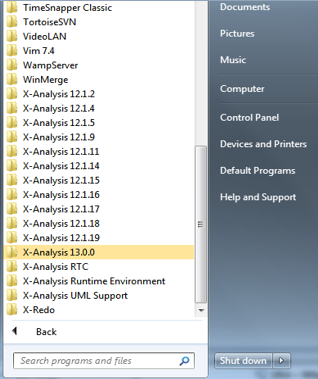


Fig. 4.2.1 – Windows 7

* **Windows 8 -**

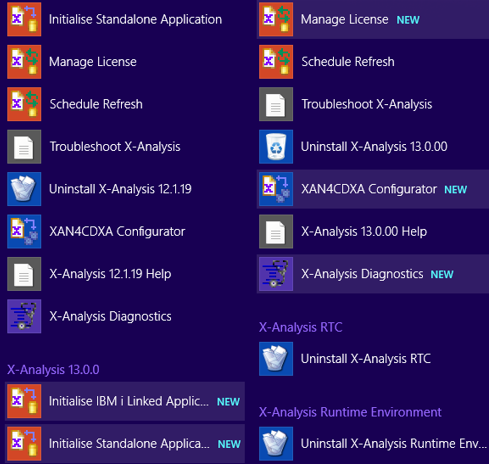


Fig. 4.2.2 – Windows 8

* **Windows 10 -**

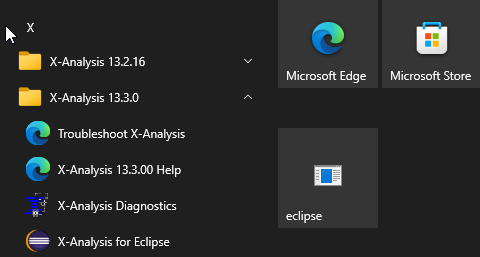


Fig. 4.2.3 – Windows 10

The demo of multiple version installation is through Windows 7.

Expand each version as is shown below for V13.0.0:

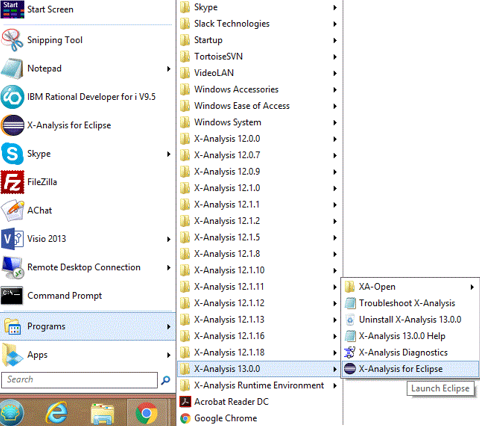


Fig. 4.2.4 – Expand Version

Click on X-Analysis for Eclipse to launch the Workspace Launcher dialog.

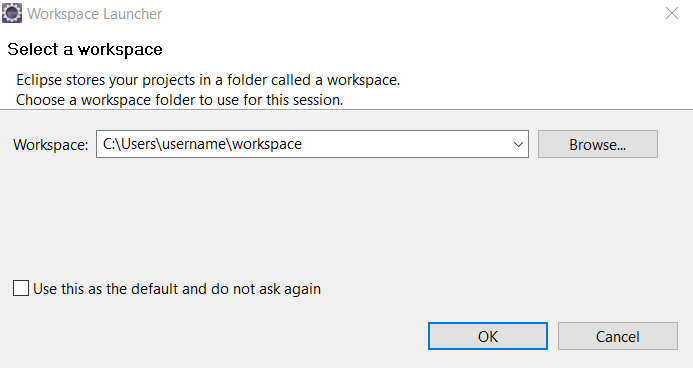


Fig. 4.2.5 – Workspace Launcher

Select the workspace for the latest version. Press OK. Refer to the screen below for the 13.0.00 version of X-Analysis.

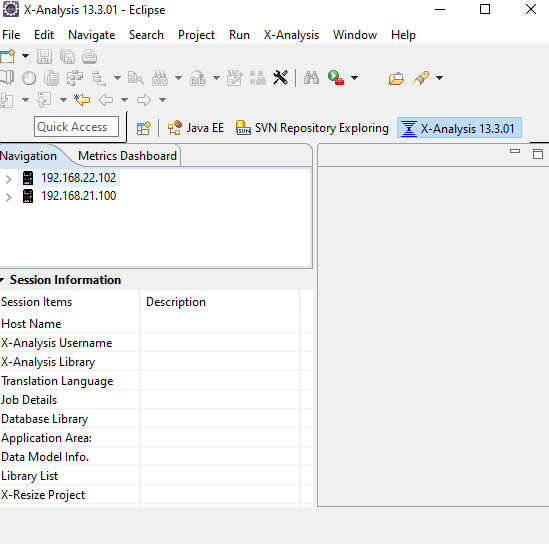


Fig. 4.2.6 – 13.0.00 version of X-Analysis

Now from the Workspace Launcher, browse for a different workspace or create a new one\*.

|  |  |
| --- | --- |
|  | If a new workspace is created, remember to add a \*new DB2 connection/\*new DB400 connection. For this, select the NewDB2 Connection/New DB2 Connection for i option from the X-Analysis menu. Refer to the dialog box for the New Connection node. |

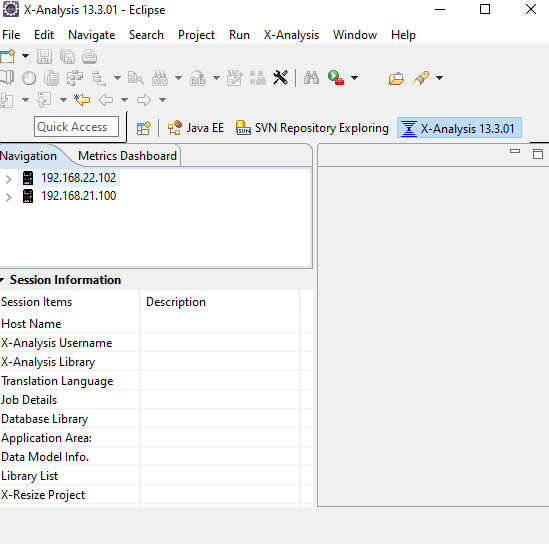


Fig. 4.2.7 – Sign-on dialog box

Click on the new node for the Sign-on dialog box. Enter the details and click Login.

|  |  |
| --- | --- |
|  | The connection information is saved on closing the Eclipse/RDi workbench. If the user uninstall X-Analysis before such closing occurs, the connection information will not be retained. |

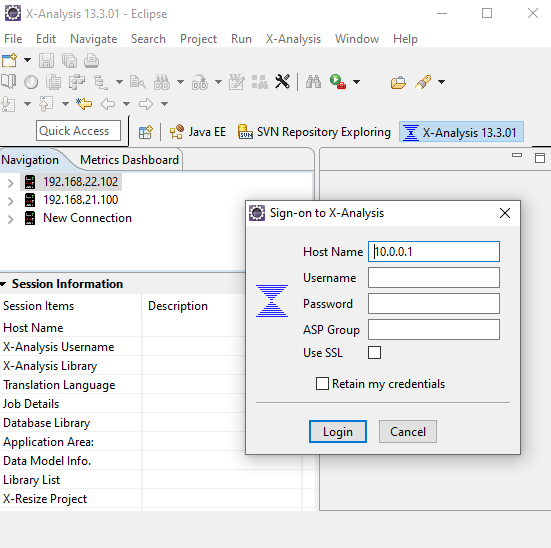


Fig. 4.2.8 – Eclipse Workbench

Installing Various X-Analysis Version

A recap of the installing various X-Analysis versions will be handy at this point. Refer to a sample case of version upgrade to V12.1.14:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Client and Server Versions | **Server Component** | Task Requirements (Yes/No) X-Ref Libraries | **Client Install Runtime (XARuntimeEnv12\_1\_0.msi)** | **Install XA Plugin (XASetup12\_1\_14.msi)** |
| From version 11.X.X to 12.1.X | Install X-Analysis (XAN4LOAD\_12\_1\_0.SAVF) Install PTF (X12\_1\_14.SAVF) | |  |  | | --- | --- | | Upgrade (Option 77) Yes | Release Initialization (Option 97) No | | Yes (Recommended) Note: v11 Runtime has older version of Eclipse(3.4) | Yes |
| From version 12.0.X to 12.1.14 | From version 12.0.X to 12.1.14 Install X-Analysis (XAN4LOAD\_12\_1\_0.SAVF) Install PTF (X12\_1\_14.SAVF) | |  |  | | --- | --- | | Upgrade (Option 77) Yes | Release Initialization (Option 97) No | | No | Yes |
| From version 12.1.X to 12.1.14 | Install PTF (X12\_1\_14.SAVF) | |  |  | | --- | --- | | Upgrade (Option 77) \*Yes & No | Release Initialization (Option 97) Yes | | No | Yes |

|  |  |
| --- | --- |
|  | Choose \*Option 77 always to upgrade the X-Ref from X version to Y version. If the user is upgrading from 12.1.x version to 12.1.y version, then choose option 97. In terms of functional difference,   * Option 77: (a) Clears X-Ref library (b) Restores fresh copy of all the files and required objects in X-Ref library (c) Initializes the X-Ref; * Option 97: 1. Updates the changed files and initializes the X-Ref. For this execution difference, option 77 takes some extra time (approx. 30 mins.) to complete.   If the user is upgrading from V11.x.x to V12.x.x (and above), the user must remember, that the Runtime also needs to be upgraded. Also, the X-Analysis Client 13.1.x will not work with XARuntime below version 13.0.0. |

Uninstalling X-Analysis Client

* **Uninstalling X-Analysis Client (Version 12.1.0 and up)**
  + To uninstall X-Analysis Client version 12.1.0, select the 'Uninstall X-Analysis' from the X-Analysis program group, and remove the plugin. Before proceeding to uninstall, the user must remember to close the X-Analysis perspective, and then the workbench.
* **Uninstalling X-Analysis Client (Pre-version 12.1.0)**
  + Uninstalling one version of plugin and re-installing it, or installing another version of the plugin, while the third version of plugin remains installed throughout the process, then launch Clean start Eclipse (with Run as administrator) between the uninstall of one version and install of a new version, to avoid any problems. This is required for Eclipse to pick the details of uninstall/install performed.
  + To uninstall multiple versions of X-Analysis uninstallation should be done in decreasing order of versions, that is, start by uninstalling the latest version first. Launch Eclipse in Clean mode after each uninstall to keep Eclipse updated about the uninstalls performed.
  + Ideally, after each installation and uninstallation of X-Analysis, the user must launch the Eclipse with 'Clean Start' in administrator mode to update the Eclipse with the tasks performed.

Version Compatibility

Earlier, XA maintained some compatibility between the Client versions and cross-references initialized at the same GA version. For instance, cross-references initialized with version 13.2.05 could be used with XA client 13.2.16.

Starting from version 13.3.01, every version of XA Client will be compatible only up to certain previous cross-reference version(s).

|  |  |
| --- | --- |
|  | A particular X-Analysis plugin version if allows working with cross-reference created using previous X-Analysis versions, then such cross-reference is referred to as compatible cross-reference. |

Switch Perspective

Selecting a compatible cross-reference stays on the active perspective. However, If a user selects a cross-reference which is not compatible with the X-Analysis plugin version, a message gets prompted asking the user to switch the perspective.

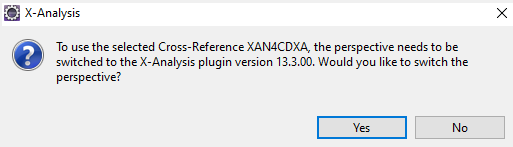


Fig. 4.2.9.A – Switching the perspective

The perspective switch happens on opting Yes; otherwise, the cross-reference expansion will not happen, and a warning node gets displayed with the message.



Fig. 4.2.9.B – Switching the perspective

If there is no matching X-Analysis plugin installed, a message gets displayed and the cross-reference selection happens in the current active perspective (in fallback mode).

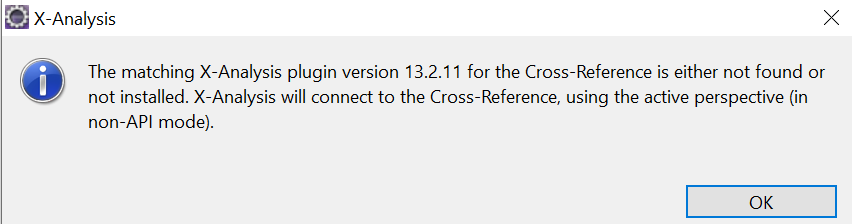


Fig. 4.2.10 – Switching the perspective

Scenarios

The table below outlines the scenarios regarding the behavior of compatible and non-compatible cross-references used with active X-Analysis plugin version.

|  |  |  |
| --- | --- | --- |
| **Scenario** | **Behavior** | **Example** |
| * Active perspective version is compatible to the cross-reference version | The cross-reference is selected in the same perspective without any issues | Cross-Reference - 13.3.01  Active Plugin - 13.3.02 |
| * Active perspective version is not compatible to the cross-reference version and * Cross-reference version plugin is available/installed | The user will be prompted for the switch of the perspective | Cross-reference - 13.3.00  Active Plugin - 13.3.01  Available Plugin - 13.3.00 |
| * Active perspective version is not compatible with the cross-reference version and * Cross-reference version plugin is not-available/not-installed and * Cross-reference version is of the same GA as the perspective version | The user will be informed that the required plugin version is not installed, and the cross-reference will be selected in the active perspective in non-API mode (fall back mode) | Cross-reference - 13.3.00  Active Plugin - 13.3.01  NOT Available plugin - 13.3.00 |
| * Active perspective version is not compatible with the cross-reference version and * Cross-reference version plugin is not-available/not-installed and * Cross-reference version is not of the same GA as the perspective version | The user will be informed that the required plugin version is not installed, and the cross-reference selection will fail | Cross-reference - 13.2.16  Active Plugin - 13.3.01  NOT Available plugin - 13.2.16 |

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