

Module 4 – Lab-Working with Reports

Contents

Introduction	2
Exercise 1 – Creating an Inventory Report	2
Introduction to Reference Reports	3
Exercise 2 – Creating an Unreferred Report.....	5
Exercise 3 – Using Portability Assessment	11
Exercise 4 – Using Quality Assessment	17

Introduction

Enterprise Analyzer includes tools for creating a variety of reports with useful information about your projects and workspaces.

After completing this hands-on, you should be able to:

- Create an inventory report.
- Create various kinds of reference reports.
- Create a portability assessment.

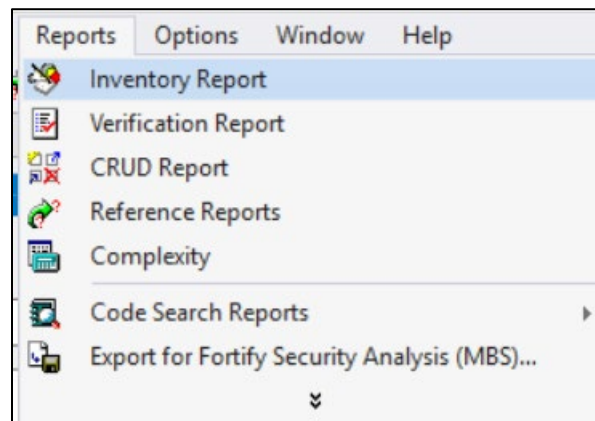
Exercise 1 – Creating an Inventory Report

The Inventory Report contains high-level statistics on the contents of the current workspace. This includes the Workspace folder, a sum of all projects, and a section for each project defined in the workspace.

To create a new inventory report, perform the following steps:

1. If using the Classic menu style, on the main menu bar, click **Prepare → Inventory Report**.

If using the Simplified menu style, select **Reports → Inventory Report**.



You will see a screen like the following that lists a project for each user.

	Type	Source Lines	Quantity	Unverified	Verified	Erroneous	Relaxed	Missing
Workspace	BankDemo	52,672	253		111		24	26
	BMS File	4,561	14		14			
	COBOL File	20,635	81		79		2	
	Control Cards File							2
	Copybook File	14,219	86					
	CSD File	1,181	2		2			
	JCL File	351	11		11			
	JCL Procedure	85	9					
	Natural Include		22					
	PL/I File	2,772	8				8	
	PL/I Include File							24
	PL/SQL File	8,868	19		5		14	
	VB File		1					
All Projects	Total	52,640	252		111		24	26
	BMS File	4,561	14		14			
	COBOL File	20,635	81		79		2	
	Control Cards File							2
	Copybook File	14,187	85					
	CSD File	1,181	2		2			
	JCL File	351	11		11			
	JCL Procedure	85	9					
	Natural Include		22					
	PL/I File	2,772	8				8	
	PL/I Include File							24

NOTE: Source lines, number of objects, and verification status and count are stored for each 'source' folder in each project, "All Projects", and for the workspace.

- Click the **X** in the upper right-hand corner to close the Inventory Report.

Introduction to Reference Reports

In any analysis or modernization project, it is important to ensure that no critical source components are missing or unused. The cost/risk associated with a missing source component can be very high. This is a powerful way to validate the completeness of your production code, confirm that all code is the most recent, and increase the efficiency of your production code by removing any unused components.

There are four types of reference reports:

- **Unreferred Report:** Identifies unreferenced (unused) entities. This may or may not indicate that an object is obsolete, based on what you have loaded in the workspace.
- **Unresolved Report:** Identifies missing entities. Typically, at the onset of the deployment of EA, it is found that the copybooks and JCL procedures are missing.
- **Cross-Reference Report:** Identifies all object relationships in the system.
- **External Reference Report:** Identifies references in object-oriented applications to external files that are not registered in the workspace, such as .java, Java Archive (JAR), or C++ include files (assuming you have identified the locations of these files in the Workspace Verification options window for the source files). These references are not reported as unresolved in the Unresolved Report.

All reports have the same options and functions. For the sake of brevity, you will only perform the Unreferred Report exercise. However, the following steps apply in the same manner to the Unresolved, Cross-Reference, and External References Reports.

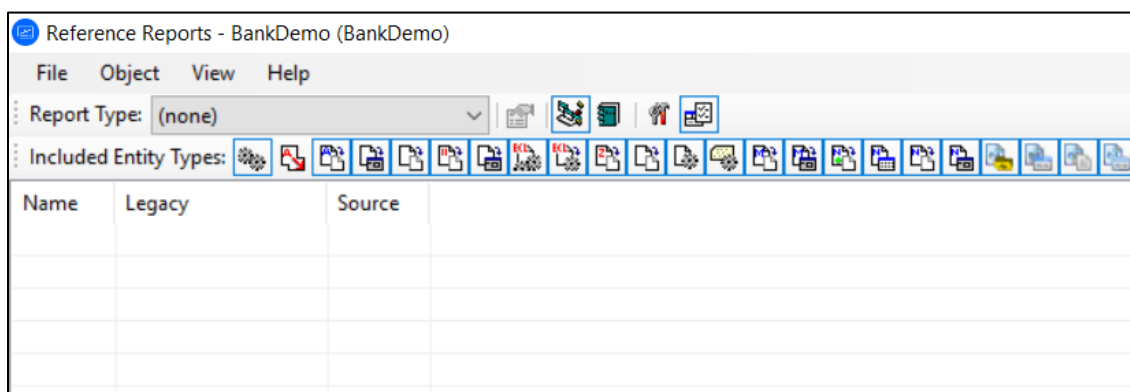
Exercise 2 – Creating an Unreferred Report

This report shows source components that are registered in the repository but that have no references elsewhere. For example, copybooks are not used in programs, and program entry points are not called or executed in JCL or invoked by a transaction.

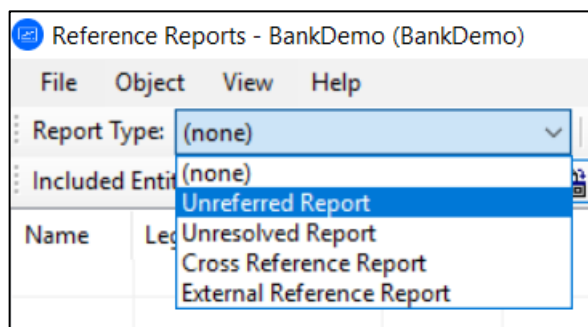
In general, all unreferred components should be investigated to ensure they have not been included by mistake or that the component using them (e.g., JCL) is not missing.

To create a new unreferred report, perform the following steps:

1. If you are using the Classic menu, on the main menu bar, click **Prepare → Reference Report**.
Otherwise, click **Reports → Reference Reports**.



2. From the **Report Type** drop-down box, select **Unreferred Report**.



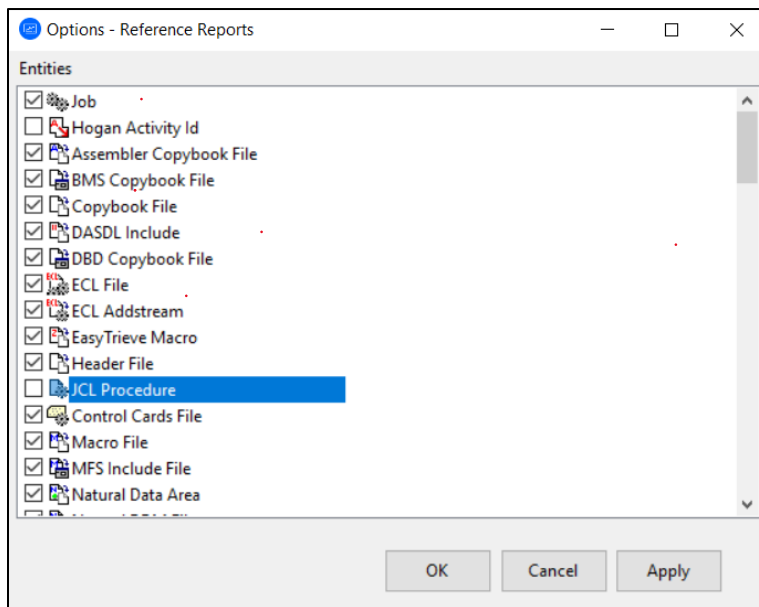
3. Click the **X** in the upper right-hand corner to close the **Preview** pane.
Make sure you click the **X** in the **Preview** pane and not on the **Reference Reports** window.

You will see a reference report like the following:

Object Name	Object Type	Legacy Object	Object Description
BBANK10P	Program Entry Point	BBANK10P.pli	
BCASH01P	Program	BCASH01P.cbl	
BCASH01P	Program Entry Point	BCASH01P.cbl	
BCASH02P	Program	BCASH02P.cbl	
BCASH02P	Program Entry Point	BCASH02P.cbl	
BCASH03P	Program	BCASH03P.cbl	
BCASH03P	Program Entry Point	BCASH03P.cbl	
CABENDD.inc	Natural Include	CABENDD.inc	
CBANKD01.inc	Natural Include	CBANKD01.inc	
CBANKD51.inc	Natural Include	CBANKD51.inc	
CBANKD52.inc	Natural Include	CBANKD52.inc	
CBANKDAT.inc	Natural Include	CBANKDAT.inc	
CBANKDAX.inc	Natural Include	CBANKDAX.inc	
CBANKEXT.inc	Natural Include	CBANKEXT.inc	
CBANKTXD.inc	Natural Include	CBANKTXD.inc	

- Click the required column name to sort.
- From the menu bar, click **View → Options**.

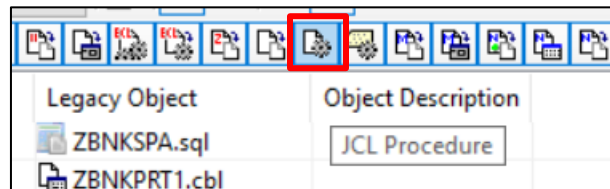
You will see the **Options – Reference Reports** dialog box. From here, you can limit the file entities shown in the report, such as Copybook files, screens, and JCL procedures.



- In the **Options – Reference Reports** dialog box, clear the **JCL Procedure** entity check box and click **OK**.

In the reference report, you will see that `YBNKEXTD.prc` is no longer displayed.

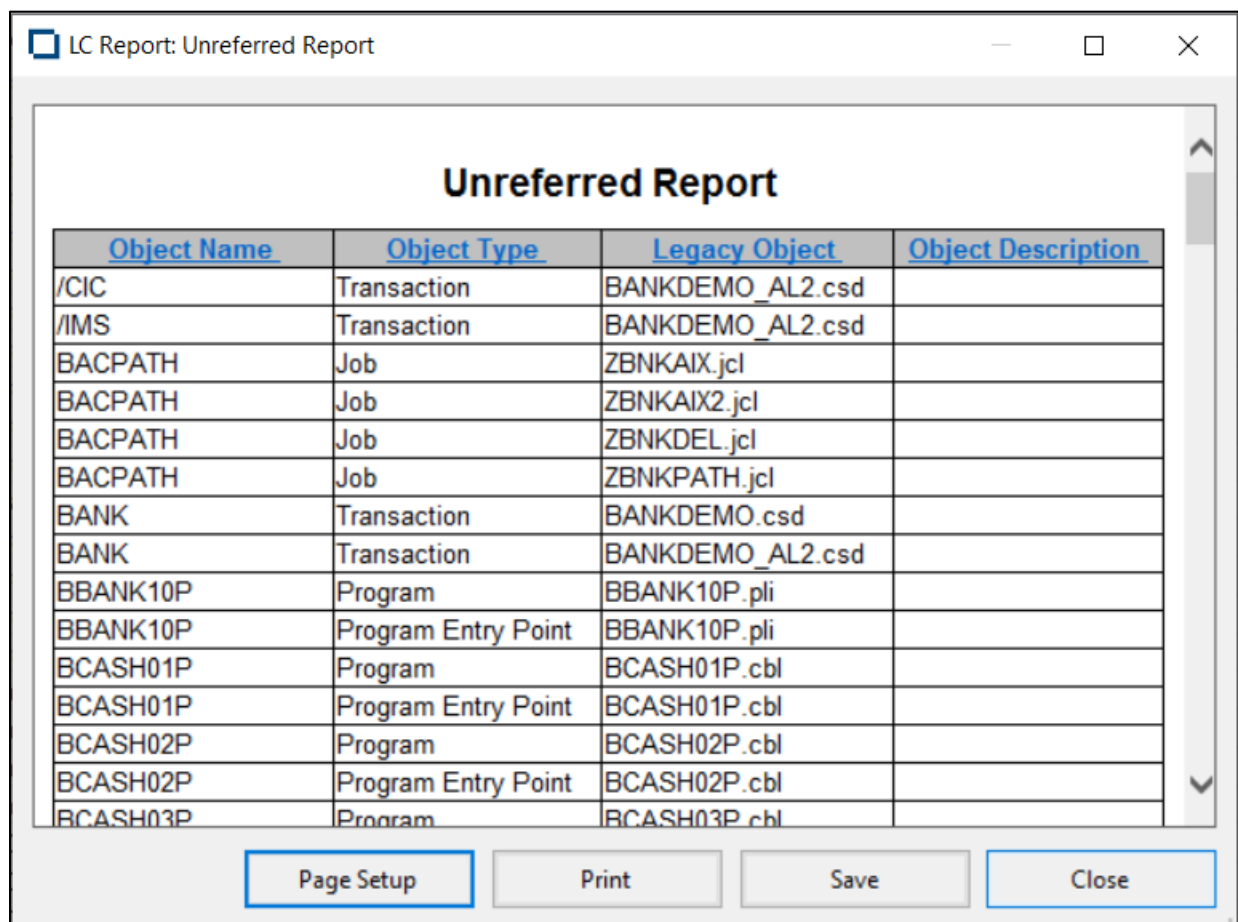
7. Click the **JCL Procedure** button on the **INCLUDED ENTITY TYPES** toolbar next to the Report Type drop-down box.
8. The YBNKEXTD.prc JCL procedure should appear in the report again.



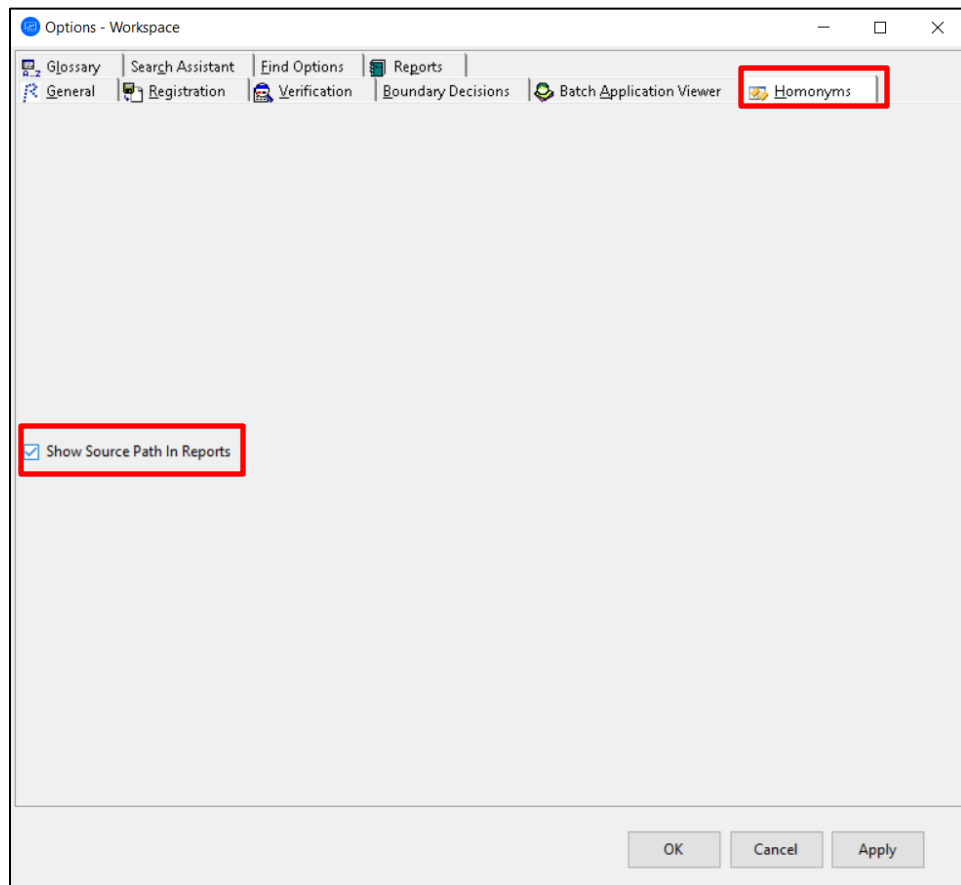
9. To create a reference report suitable for delivery to a customer, from the menu bar, click **File** → **Report**.

You can also click the **Report**  icon, as shown in the next screenshot.

You will see a screen like the following:



10. To get the source column added to the report, navigate to the Workspace Options → **Homonyms** and select the **Show Source Path In Reports** check box.



The report is as shown in the screenshot.

Reference Reports - BankDemo (BankDemo)

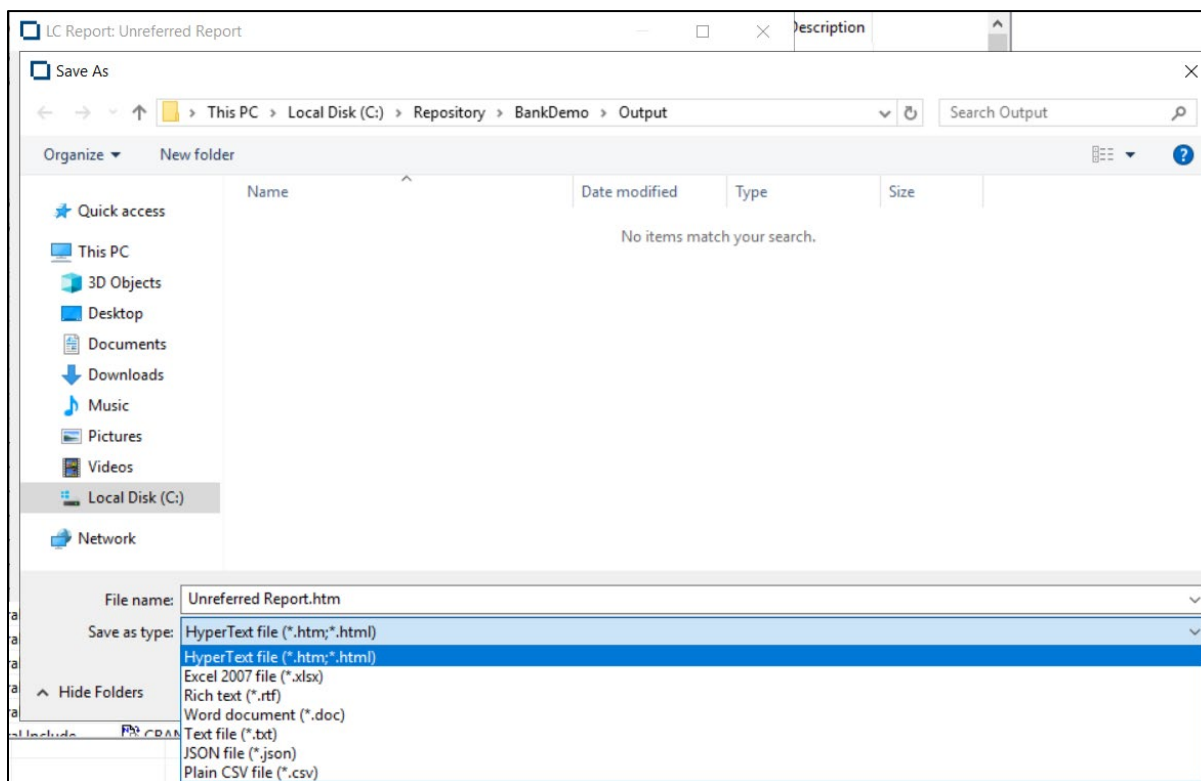
File Object View Help

Report Type: Unreferred Report

Included Entity Types:

Object Name	Object Type	Legacy Object	Source	Object Description
/CIC	Transaction	BANKDEMO_AL2.csd	C:\BankDemo-main\sources\csd\BANKDEMO_AL2.csd	
/IMS	Transaction	BANKDEMO_AL2.csd	C:\BankDemo-main\sources\csd\BANKDEMO_AL2.csd	
BACPATH	Job	ZBNKAIX.jcl	C:\BankDemo-main\sources\jcl\ZBNKAIX.jcl	
BACPATH	Job	ZBNKAIX2.jcl	C:\BankDemo-main\sources\jcl\ZBNKAIX2.jcl	
BACPATH	Job	ZBNKDEL.jcl	C:\BankDemo-main\sources\jcl\ZBNKDEL.jcl	
BACPATH	Job	ZBNKPATH.jcl	C:\BankDemo-main\sources\jcl\ZBNKPATH.jcl	
BANK	Transaction	BANKDEMO.csd	C:\BankDemo-main\sources\csd\BANKDEMO.csd	
BANK	Transaction	BANKDEMO_AL2.csd	C:\BankDemo-main\sources\csd\BANKDEMO_AL2.csd	
BBANK10P	Program	BBANK10P.pli	C:\BankDemo-main\sources\pli\main\BBANK10P.pli	
BBANK10P	Program Entry Point	BBANK10P.pli	C:\BankDemo-main\sources\pli\main\BBANK10P.pli	
BCASH01P	Program	BCASH01P.cbl	C:\BankDemo-main\sources\cobol\core\BCASH01P.cbl	
BCASH01P	Program Entry Point	BCASH01P.cbl	C:\BankDemo-main\sources\cobol\core\BCASH01P.cbl	
BCASH02P	Program	BCASH02P.cbl	C:\BankDemo-main\sources\cobol\core\BCASH02P.cbl	
BCASH02P	Program Entry Point	BCASH02P.cbl	C:\BankDemo-main\sources\cobol\core\BCASH02P.cbl	
BCASH03P	Program	BCASH03P.cbl	C:\BankDemo-main\sources\cobol\core\BCASH03P.cbl	
BCASH03P	Program Entry Point	BCASH03P.cbl	C:\BankDemo-main\sources\cobol\core\BCASH03P.cbl	
CABENDD.inc	Natural Include	CABENDD.inc	C:\BankDemo-main\sources\include\CABENDD.inc	
CBANKD01.inc	Natural Include	CBANKD01.inc	C:\BankDemo-main\sources\include\CBANKD01.inc	
CBANKD51.inc	Natural Include	CBANKD51.inc	C:\BankDemo-main\sources\include\CBANKD51.inc	
CBANKD52.inc	Natural Include	CBANKD52.inc	C:\BankDemo-main\sources\include\CBANKD52.inc	
CBANKDAT.inc	Natural Include	CBANKDAT.inc	C:\BankDemo-main\sources\include\CBANKDAT.inc	
CBANKDAX.inc	Natural Include	CBANKDAX.inc	C:\BankDemo-main\sources\include\CBANKDAX.inc	
CBANKEXT.inc	Natural Include	CBANKEXT.inc	C:\BankDemo-main\sources\include\CBANKEXT.inc	
CBANKTXD.inc	Natural Include	CBANKTXD.inc	C:\BankDemo-main\sources\include\CBANKTXD.inc	
CBANKVAC.inc	Natural Include	CBANKVAC.inc	C:\BankDemo-main\sources\include\CBANKVAC.inc	
CBANKVAT.inc	Natural Include	CBANKVAT.inc	C:\BankDemo-main\sources\include\CBANKVAT.inc	
CBANKVCS.inc	Natural Include	CBANKVCS.inc	C:\BankDemo-main\sources\include\CBANKVCS.inc	
CBANKVTX.inc	Natural Include	CBANKVTX.inc	C:\BankDemo-main\sources\include\CBANKVTX.inc	
CBANKVT1.inc	Natural Include	CBANKVT1.inc	C:\BankDemo-main\sources\include\CBANKVT1.inc	

11. Either **Save** or **Print** the report using the appropriate buttons at the bottom of the dialog box. The default location for any report or diagram that you save is the **Output** folder under the **Workspace** folder on the server. You can override the Save into a network location or a local drive on your PC.



You can modify the report name to add your id and / or date so that the same report run multiple times will not be overplayed. You can change the report type to any valid extension, provided you have the supporting software to open the file. The most useful format for most reports is Excel.

12. Close the **Unreferred** and **Reference** report windows after finishing.

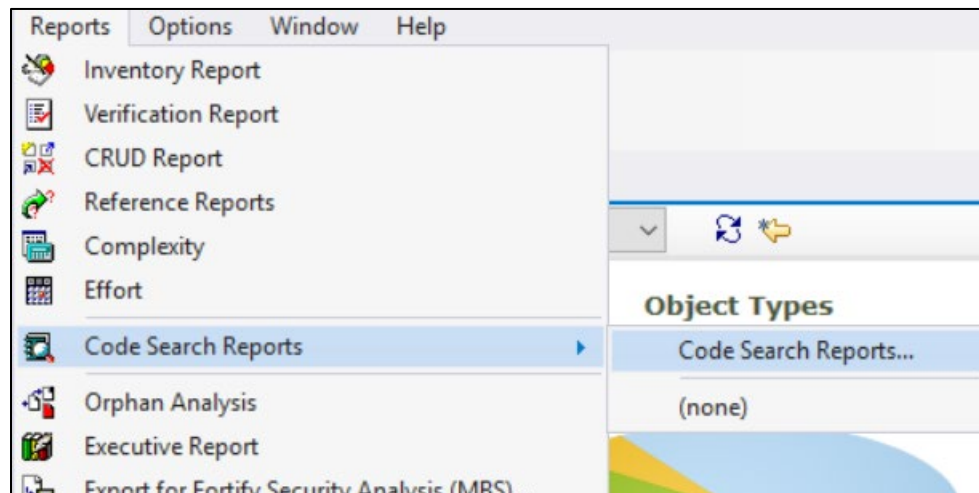
Exercise 3 – Using Portability Assessment

Portability Assessment is developed to support the Assessment portions of a migration assessment engagement under the guidance of Micro Focus' technical services consultants.

A user invoking the Portability Assessment feature may choose from the list of assessment deliverables to run. When complete, the reports are available for browser viewing.

Portability Assessment is available as a product feature that appears in the Enterprise Analyzer.

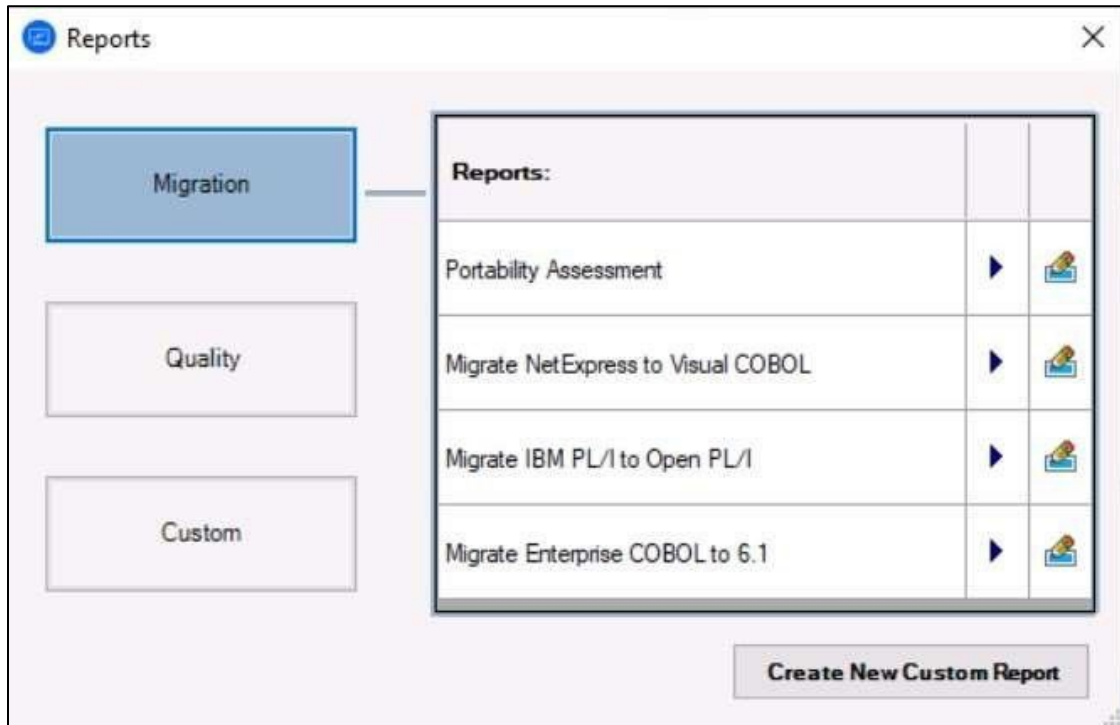
Click **Reports** → **Code Search Reports** → **Code Search Reports**.



1. To create the portability assessment report, click **Reports** → **Code Search Reports** → **Migration** → **Portability Assessment**.

OR

Click **Reports** → **Migration Reports** → **Portability Assessment**.



OR

Click the PA  button.

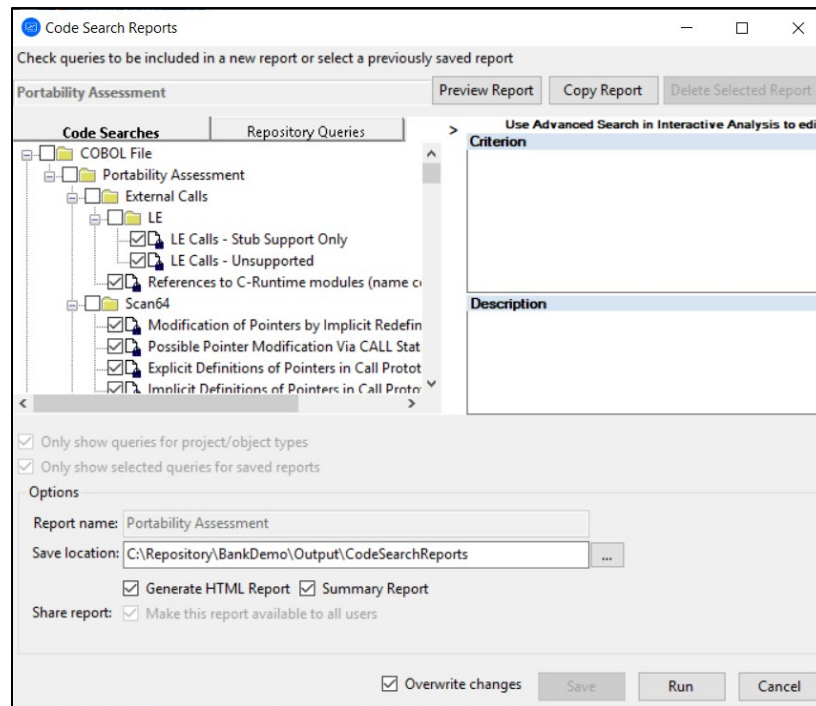
A pop-up menu displays the list of included reports, selected by default.

2. Select the **Generate HTML Report** and **Summary Report** check boxes.

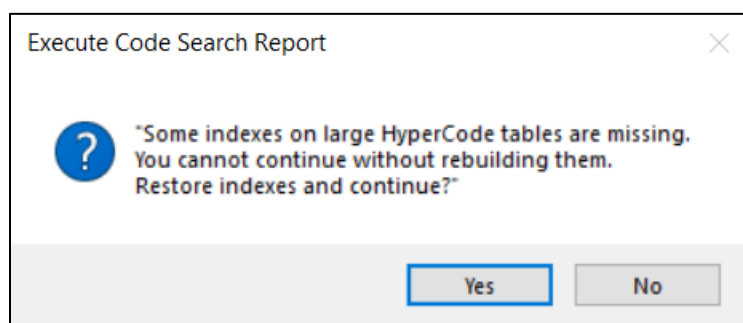
The option to run in the background is set by default since this report can take a long time to run.

Leave the default selections unchanged.

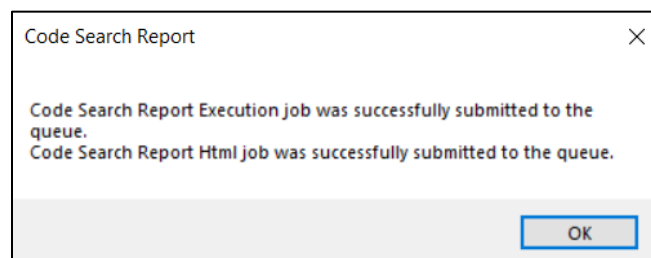
3. Click the **Run** button.



4. Click **Yes** to restore indexes and continue.



5. Click **OK**.




The portability assessment reports are run one by one, and each complete report is displayed in the EA activity log. When the run ends, there is a message in the Activity log.

Activity Log						
Date	Elapsed	Method	Entity Type	Object	Result	Messages
2023-03-02 09:30:04	00:00:00.10	Unsupport...			success	
2023-03-02 09:30:04	00:00:00.11	Unsupport...			success	
2023-03-02 09:30:04	00:00:00.08	Unsupport...			success	
2023-03-02 09:30:04	00:00:00.08	Conversio...			success	
2023-03-02 09:30:34	00:01:01.74	CustomRe...			success	(queue processor) Double-click to open: C:\Repository\BankDemo\Output\CodeSearchReports\Portability Assessment

- In the Activity Log, Double-click the message “**Double-click to open...**” to open a browser instance displaying the available reports.

This is the Summary Report.

- Click the **View Code Search Report Results** link.


Micro Focus® Enterprise Analyzer®

Portability Assessment
Project: BankDemo

[View Code Search Report Results](#)

Summary Report

Executive Summary

A brief summation of the Code Search query results from the report

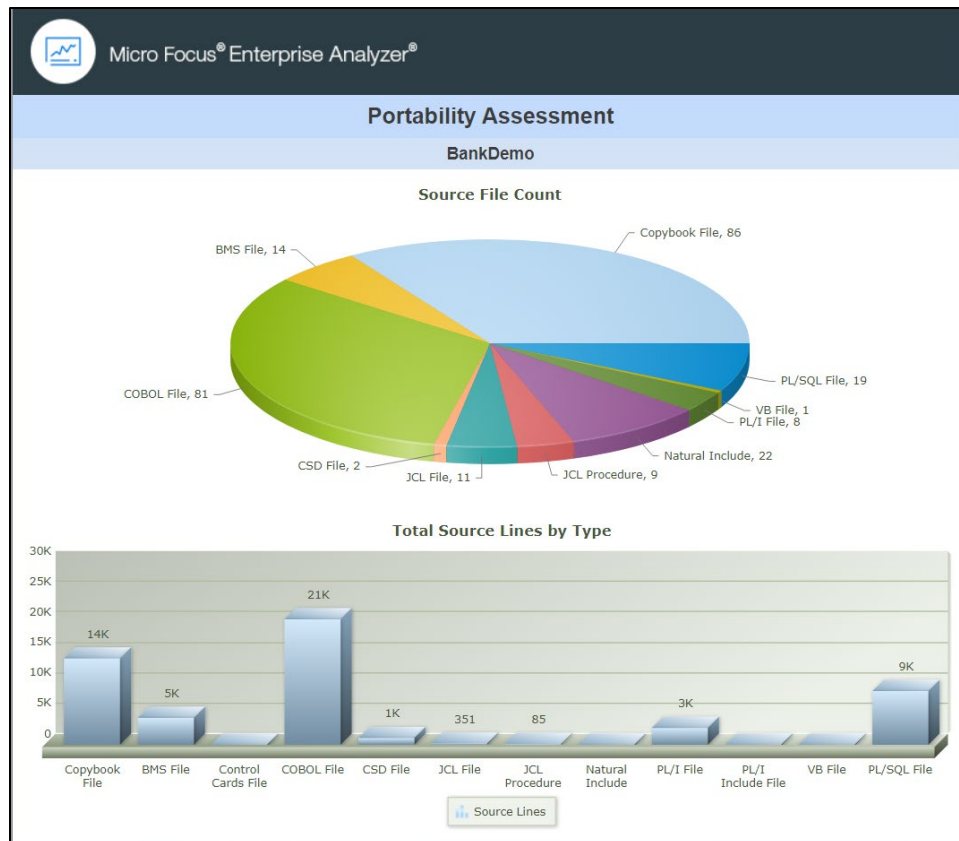
Report Statistics

	Count
Number of queries run	371
Number of objects searched	397
Number of queries that returned at least 1 result	36
Total number of results	1512

Query Breakdown

Results by Category or Folder

Category / Folder	Count	Programs With Results
Inventory Analysis	1270	0
Data Analysis	210	42
Assessment	32	5
Scan64	0	0
COBOL\Portability Assessment	0	0
COBOL\Portability Assessment\External Calls	0	0
COBOL\Portability Assessment\External Calls\LE	0	0



8. Scroll down to view the various reports.

- [Inventory Analysis](#)
- [Data Analysis](#)
- [Assessment](#)
- [Scan64](#)

9. Under Data Analysis, click **CRUD Report**.

Once the CRUD report link is clicked, you can see the report, which has the CRUD operations (Create, Read, Update, and Delete) list in the report.

CRUD Report - BankDemo (BankDemo)									
View the data operations each program in the project performs and the data objects on which the programs operate									
Program	File Name	File Source	Data Store	Data	Type	Create	Read	Update	Delete
DBANK01P	DBANK01P.cbl	C:\BankDemo-main\source\cobol\data\sql\DBANK01P.cbl		BNKCUST	Table		+		
DBANK01P	DBANK01P.cbl	C:\BankDemo-main\source\cobol\data\vsam\DBANK01P.cbl	MF101V.MFIDEMO.BNKCUST	BNKCUST	File		+		
DBANK02P	DBANK02P.cbl	C:\BankDemo-main\source\cobol\data\sql\DBANK02P.cbl		BNKCUST	Table		+	+	
DBANK02P	DBANK02P.cbl	C:\BankDemo-main\source\cobol\data\vsam\DBANK02P.cbl	MF101V.MFIDEMO.BNKCUST	BNKCUST	File		+	+	
DBANK03P	DBANK03P.cbl	C:\BankDemo-main\source\cobol\data\sql\DBANK03P.cbl		BNKACC	Table		+		
DBANK03P	DBANK03P.cbl	C:\BankDemo-main\source\cobol\data\sql\DBANK03P.cbl		BNKATYPE	Table		+		
DBANK03P	DBANK03P.cbl	C:\BankDemo-main\source\cobol\data\sql\DBANK03P.cbl		BNKTXN	Table		+		
DBANK03P	DBANK03P.cbl	C:\BankDemo-main\source\cobol\data\vsam\DBANK03P.cbl	MF101V.MFIDEMO.BNKACC	BNKACC1	File		+		
DBANK03P	DBANK03P.cbl	C:\BankDemo-main\source\cobol\data\vsam\DBANK03P.cbl	MF101V.MFIDEMO.BNKACC.AIX1	BNKACC1	File		+		
DBANK03P	DBANK03P.cbl	C:\BankDemo-main\source\cobol\data\vsam\DBANK03P.cbl	MF101V.MFIDEMO.BNKATYPE	BNKATYPE	File		+		
DBANK03P	DBANK03P.cbl	C:\BankDemo-main\source\cobol\data\vsam\DBANK03P.cbl	MF101V.MFIDEMO.BNKTXN	BNKTXN1	File		+		
DBANK03P	DBANK03P.cbl	C:\BankDemo-main\source\cobol\data\vsam\DBANK03P.cbl	MF101V.MFIDEMO.BNKTXN.AIX1	BNKTXN1	File		+		
DBANK04P	DBANK04P.cbl	C:\BankDemo-main\source\cobol\data\sql\DBANK04P.cbl		BNKACC	Table			+	
DBANK04P	DBANK04P.cbl	C:\BankDemo-main\source\cobol\data\vsam\DBANK04P.cbl	MF101V.MFIDEMO.BNKACC	BNKACC	File		+	+	
DBANK05P	DBANK05P.cbl	C:\BankDemo-main\source\cobol\data\sql\DBANK05P.cbl		BNKTXN	Table		+		
DBANK05P	DBANK05P.cbl	C:\BankDemo-main\source\cobol\data\vsam\DBANK05P.cbl	MF101V.MFIDEMO.BNKTXN	BNKTXN1	File		+		
DBANK05P	DBANK05P.cbl	C:\BankDemo-main\source\cobol\data\vsam\DBANK05P.cbl	MF101V.MFIDEMO.BNKTXN.AIX1	BNKTXN1	File		+		
DBANK06P	DBANK06P.cbl	C:\BankDemo-main\source\cobol\data\sql\DBANK06P.cbl		BNKTXN	Table	+			
DBANK06P	DBANK06P.cbl	C:\BankDemo-main\source\cobol\data\vsam\DBANK06P.cbl	MF101V.MFIDEMO.BNKTXN	BNKTXN	File	+			
DBANK07P	DBANK07P.cbl	C:\BankDemo-main\source\cobol\data\sql\DBANK07P.cbl		BNKTXN	Table	+			
DBANK07P	DBANK07P.cbl	C:\BankDemo-main\source\cobol\data\vsam\DBANK07P.cbl	MF101V.MFIDEMO.BNKTXN	BNKTXN	File	+			
DBANK08P	DBANK08P.cbl	C:\BankDemo-main\source\cobol\data\sql\DBANK08P.cbl		BNKACC	Table		+		

Exercise 4 – Using Quality Assessment

Quality Assessment is developed to let you quickly generate HTML reports to monitor applications for conformity to quality rules or to identify candidates for quality improvements. All reports are presented on an easy-to-navigate main page.

To run the report, a user invoking the Quality Assessment feature may choose from the list of reports what to run. When complete, the reports are available for browser viewing.

Quality Assessment is available as a product feature that appears in the Enterprise Analyzer.

To create a Quality Assessment report, perform the following steps:

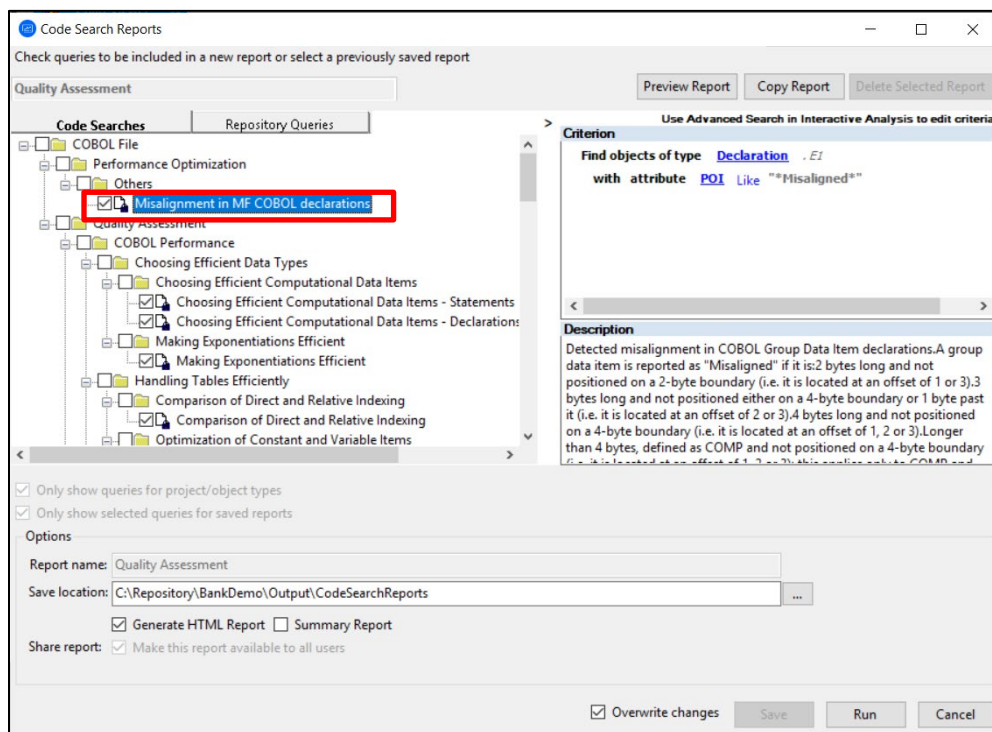
1. Click **Reports** → **Code Search Reports** → **Quality** → **Quality Assessment**.

OR

Click the PA  button.

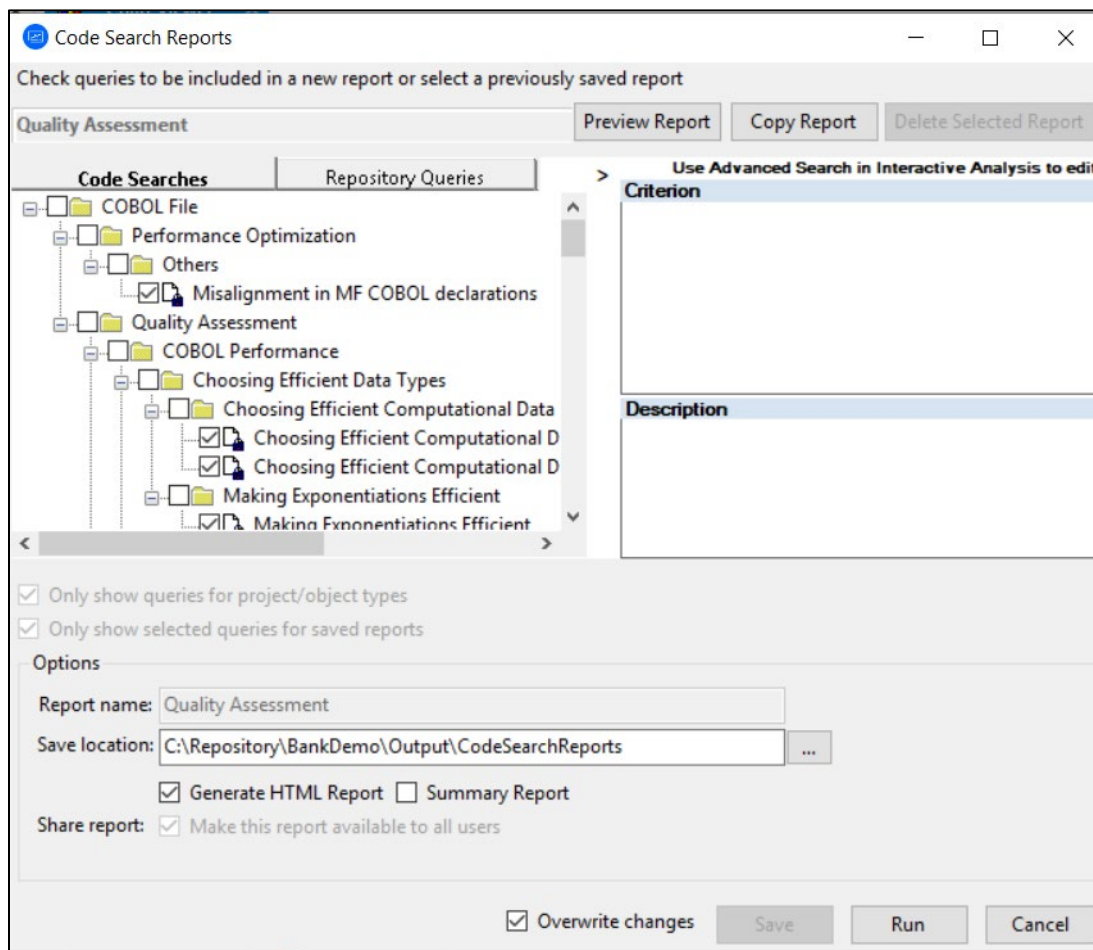
To view what the reports are checking, you can go to Code Search Reports.

The selected option as shown in the screenshot will allow you to see a description of each report that is part of the Quality Assessment. You cannot uncheck the reports in this view.



You can see each report's description. You can generate all reports from the Quality Assessment by clicking the Run button.

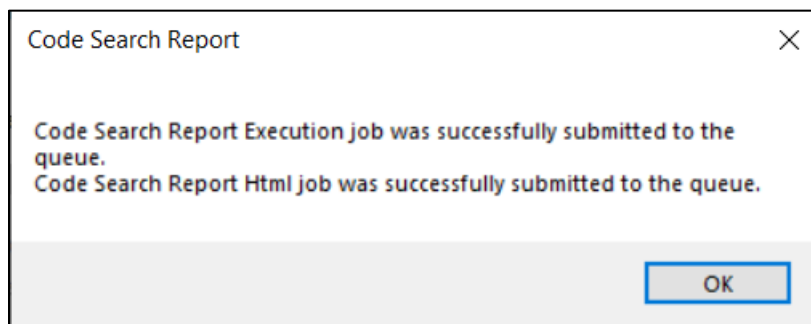
Selecting the Summary report will give you access to the reports in the browser pane.



2. Select the **Generate HTML Report** check box.
3. Click the **Run** button.

You can see the QA job that was submitted.

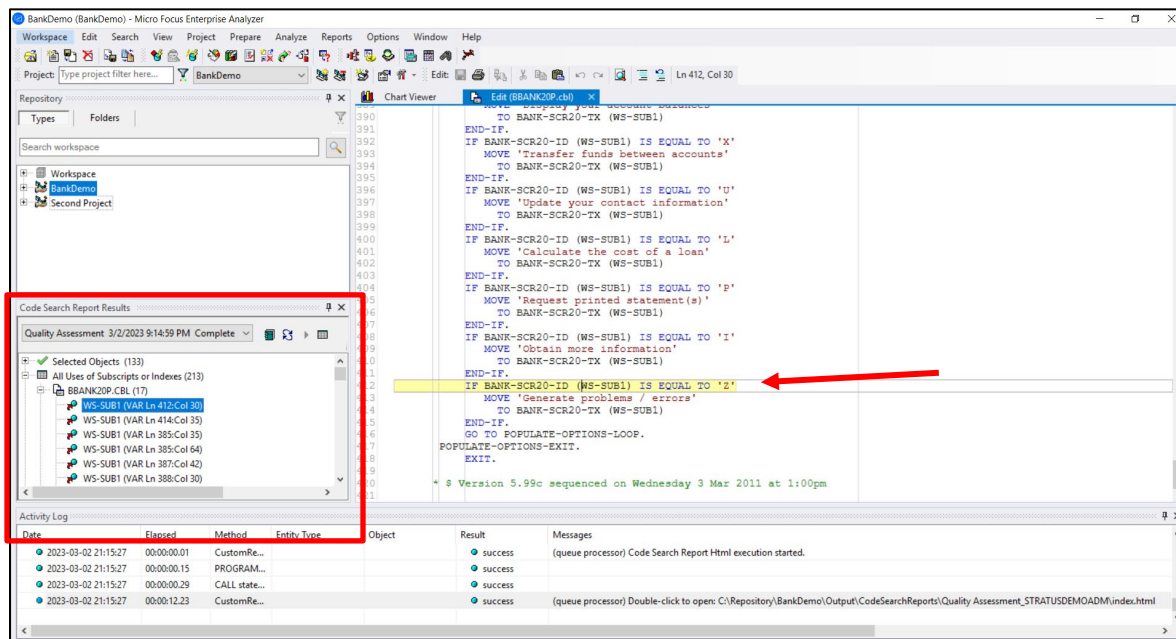
4. Click **OK**.



After reports are generated, the summary will appear in 'Code Search Report Results'.

- Expand BBANK20P.CBL and see where the violation is detected.

By double-clicking on the line in the tree structure in the source pane you will have the source opened and the cursor located on the line returned in the Code Search Report.



This page is intentionally left blank.