

# PRX

## Object Cross Reference tool for IBM i



User Guide and reference

## Changes:

- Owner of all objects in save file changed to QPGMR.
- Package compiled for OS release V7R3M0.

## What is PRX and what does it do?

The system lets you create cross reference data for all or parts of your application.

This will answer questions like:

- Which files are related (logical files/indexes) to physical files/tables?
- Which programs use specific access paths?
- What objects are used by a specific program?
- Which other programs call this specific program?

All this is done using an interactive drill-down approach.

There is no limit on how many steps you take. You can begin with a file, find a program, find another file used by this program and so on. Layer upon layer.

At all steps you can add objects to a worklist which can then be used to copy relevant source code to a project library.

## Price and licensing

The product is supplied free of charge and “as is”! The install package also includes all source code so you can make additions and improvements if you like. I only require that the original copyright statement is included at all times. And if you add some nifty features – please publish them for others to enjoy!

## Installation

The installation media contains two objects:

- An electronic copy of this document.
- A save file for the PRXLIB library.

The installation process has two steps:

- Load the save file to the system (FTP).
- Do a restore of the PRXLIB library from the save file.
- Copy the “PRX” command from PRXLIB to a library in the system library list (check system values). By doing so you just have to enter the “PRX” command on any command line anywhere to use the product.

## How to use – step by step

### Setup list of libraries to cross reference

- Enter the PRX command on a command line and hit the enter key.
- The product menu is displayed:

```
PRXMENU                                PRX Object cross reference
Select one of the following:
1. Maintenance settings and libraries
2. Generate crossreference data
3. Work with cross references
4. Work with worklists
```

Begin with option 1. (Maintenance).

You add the libraries where your objects are located one by one like this.

When finished press F3.

```
S78CE350                                PRX Maintain list of libraries
AD
                                         (Options: 1- Add X-Select)
-----
? Library Description
1 QGPL
```

↗ Maintenance settings and libraries

You can remove a library from the list by using a “4” on the line for the library and then press enter.

## Generate cross reference data.

This is option 2 on the menu.

There is no screen for this option, but this is what happens:

Three files that are generated at this stage:

- PRXDBR which contains database references. Meaning which physical file/table has which logical files/views attached to it. See example below:

Table	Views
ALARTLAR	ALARTLAA
	ALARTLAB
	ALARTLAE
	ALARTLAC
	ALARTLAD
	ALARTLAF

- PRXOBJD which contains all object information for objects in the selected libraries. This includes information on which source file and member was used to create the object. Normally this source information is not included for ILE-programs. However, the generate process in PRX does find this information and updates the PRXOBJD file accordingly.
- PRXPGMREF has information on which objects (files and programs) all program objects in the selected libraries are using in any way. See example below:

Program	Refers to	Object type
BCOPY	BG_11	*FILE
	BG_14	*FILE
	BG_15	*FILE
	BG_29	*FILE
	BG_MATCH	*FILE
	U1UTBGIR	*FILE
	BGCOPYR	*PGM
	BG_MATCH	*PGM

Worklist file

PRXWRKPF contains worklists that are used to copy relevant source code to project libraries.

## Work with cross references

(Option 3 on the menu)

When you start the function all you will see is the header with all available filter settings that determine which subset of objects you will be able to work with later.

All filter setting can be changed at any time and are not preserved from session to session.

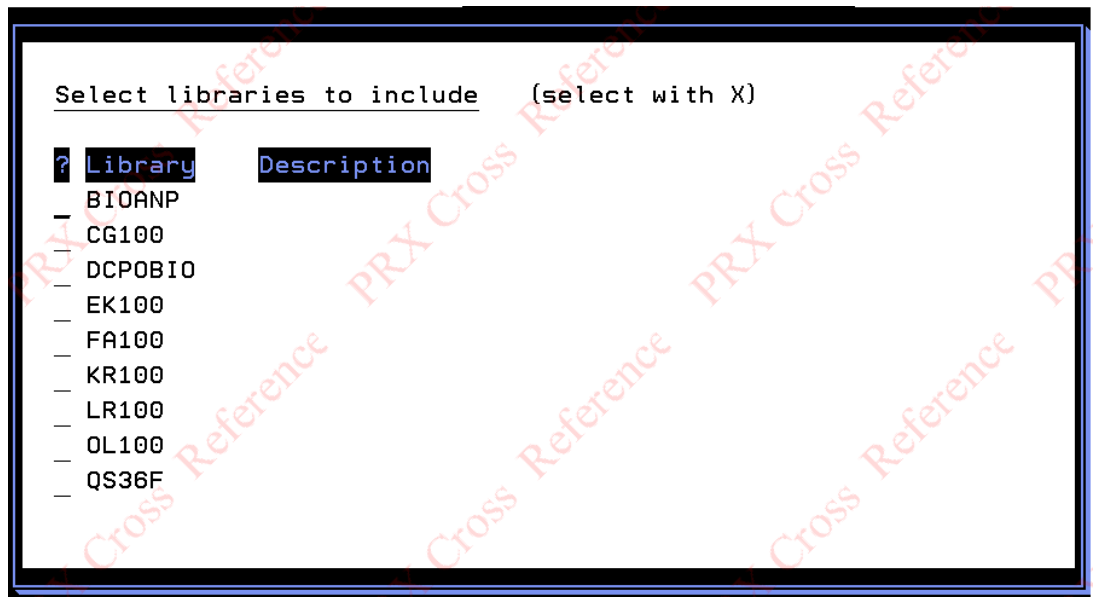
```
S78CE350          PRX Main object selection          23-09-15
AO                17.26.34
Filters:          (select with X)
Files (PF): X    Programs: X    Name pattern:      Used after:      PRXMAIN
Libraries:      *ALL X Selected
Description pattern:
-----
? Object      Library      Type      Attribute      Description      Last used
```

### Filters available

- Do you want to work with files or with programs or (as is set initially) both. You mark with an “X” what your choice is.
- Name pattern is a free text field where you limit your selection to only include objects matching the name you want.
  - a. If you only want to see objects with names beginning with “BG” enter “BG” in the field.
  - b. If you want to see objects that have the text “K13” in the middle of the name enter “%K13” in the field.
  - c. If you do not filter on name – leave the field blank.
- Description pattern works in the same way as name pattern but operates on the object description instead of the object name.
- “Used” after limits the objects you see on the main screen to those that have a last used date after the value you enter. Date is entered in the yyyyymmdd format (numeric only) and if you enter zero no check is performed on used date. NOTE that last used date is only updated when you run the generate step (option 2 on the menu)!
- Finally, you can limit which libraries are searched for objects based on all the other criteria. You have two options:
  - a. ALL libraries (meaning all the libraries that you have generated cross reference data for) are searched.
  - b. Selected only. If you enter an “X” in this field, you will be prompted to indicate which of your libraries you want to search data in.

Filter based on libraries.

Scroll through the list and mark all libraries you want to include in the current search with an "X".



When you have done your filter setup.

Press enter and you will see the objects that match your selection.

You will see:

- Physical files/tables
- Programs

For details you will need to drill down by selecting an object as a starting point.

Following options are available:

- 1= Add the object to a worklist
- 2= Add this object (file) to a worklist. Also add all programs that use this file to same work list. Also add all dependent files and programs that use any of these to the same work list. This feature is called an "explosion" but don't worry – it is totally safe.
- X= select drill down on file-file dependencies (for a file object) or program object dependencies for a program object.
- Q=Query the data in a file (RUNQRY command)
- R= Work with list of programs that call this specific program

S78CE350 PRX Main object selection 23-09-19  
 AO 20.34.36  
 Filters: (select with X)  
 Files (PF): X Programs: X Name pattern: Used after: PRXMAIN  
 Libraries: \*ALL X Selected  
 Description pattern:  
 Options: X=Select references Q=Query data (file) R=Work with programs calling this

Object	Library	Type	Attribute	Description	Last used
BCORG1	BIOANP	*PGM	CLP	CL för konvertering till organisationsenhet FTG 1	
BG_IBAN	BIOANP	*PGM	RPGLE	Underhåll BG_IBAN	2022-04-04
BG_MATCH	BIOANP	*PGM	RPGLE	Matcha kredit mot betalning	2023-09-12
BGARC	BIOANP	*PGM	CLLE	Arkivera in och utfil	
BGCOPY	BIOANP	*PGM	CLLE	Kopiera utbetalningsfil till separata filer	2023-09-12
BGCOPYR	BIOANP	*PGM	RPGLE	Visa resultat av kopiering	2023-09-12
BIC01	BIOANP	*PGM	CLP	Uppdatering KR och RE från CGP från fakturering	2023-09-13
BIC01E	BIOANP	*PGM	CLP	Uppdatering KR och RE från CGP/EST fakturering	2023-09-01
BIC01L	BIOANP	*PGM	CLP	Uppdatering KR och RE från CGP/LAT fakturering	
BIC100	BIOANP	*PGM	CLP	Uppdatera kundregister och dagsstart natt	2023-09-18
BIC50	BIOANP	*PGM	CLP	Utskrift utskrift kontroll fakturor FAK/STYR	
BIORG1	BIOANP	*PGM	RPGLE	Valprogram, konvertera organisationsenhet	
BIRBC1	BIOANP	*PGM	RPGLE	Konvertering BCBOKTIR till orgenhet för ftg 1	
BIRKE1	BIOANP	*PGM	RPGLE	Konvertering KEKNTPLR	
BIRK11	BIOANP	*PGM	RPGLE	Konvertering KIINBETR till orgenhet för ftg 1	



## Add all referenced objects to work list (“explosion”)

This function will add the following to a designated work list:

- The file you select
- All dependent files
- All programs using any of the files

This means that if you are changing a table / physical file you will be able to create a work list with all database and program objects that also need changes.

Example:

```
S78CE350                                PRX Main object selection
AO
Filters: (select with X)
Files (PF): X Programs: X Name pattern: KSKSAL Use
Libraries: *ALL X Selected
Description pattern:
Options: 1=Add to worklist Q=Query data (file) R=Work with program
D=View file layout, 2=Add all referenced to worklist (explosion)
-----
? Object Library Type Attribute Description
2 KSKSALDR DCPOBIO *FILE PF Kundsaldoregister
```

Assume file KSKSALDR will be changed. Enter “2” for this file

```
Select worklist Options 1=Create New X=Select PRXADDWRK
Add object: KSKSALDR Library: DCPOBIO Type: *FILE
Kundsaldoregister
Enter worklist name/description or select existing work list
(if already in work list indicated below!)
? Work list
1 EXPLODE_1 First explode test
```

Select an existing work list or create a new one.

The new worklist is now automatically populated with all the objects we need.

S78CE350		PRX Work with worklists				23-10-11	
A0		Details				13.37.02	
Worklist: EXPLODE_1		Description: First explode test				PRXWRKLIST	
-----							
4= Delete from worklist							
?	Object	Type	Attributes	Source lib	Src file	Src Member	Description
	FIX151	*PGM	CLP	QCLSRC	CG100	FIX151	Styrprogram för återställning av saldo
-	FIX1512	*PGM	RPGLE	QRPGLESRC	CG100	FIX1512	Återskapa kundsaldo + kundregister
-	FUR133	*PGM	RPGLE	QRPGLESRC	FU100	FUR133	Underhåll fakturaregister
-	FUR133F	*PGM	RPGLE	QRPGLESRC	FU100	FUR133F	Fråga fakturaregister
-	KRC472	*PGM	CLP	QCLSRC	KR100	KRC472	Reorg KSKSALDR, KVSALVAR, KJKSALDR, KKSAVOR
-	KRR123	*PGM	RPGLE	QRPGLESRC	BIOANP	KRR123	Uppdatering registrerade fakturor
-	KRR173	*PGM	RPGLE	QRPGLESRC	KR100	KRR173	Uppdatering registrerade inbetalningar
-	KRR232	*PGM	RPGLE	QRPGLESRC	KR100	KRR232	Utskrift räntefakturor
-	KRR251	*PGM	RPGLE	QRPGLESRC	KR100	KRR251	Skapar workfil preliminära/definitiva påminnelser
-	KRR31	*PGM	RPGLE	QRPGLESRC	KR100	KRR31	Fråga kundinformation
-	KRR34	*PGM	RPGLE	QRPGLESRC	KR100	KRR34	Registrering av noteringar - kund & faktura
-	KRR35	*PGM	RPGLE	QRPGLESRC	KR100	KRR35	Fråga på noteringar - kund & faktura
-	KRR46	*PGM	RPGLE	QRPGLESRC	KR100	KRR46	Överföring vid nytt år
-	KRR461	*PGM	RPGLE	QRPGLESRC	KR100	KRR461	Överföring vid nytt år
-	KRR472	*PGM	RPGLE	QRPGLESRC	KR100	KRR472	Reorg KSKSALDR, KVSALVAR, KJKSALDR, KKSAVOR

## Query data

Runs the RUNQRY command and shows all columns in the file something like this.

```
Bläddra till rad . . . . . Bredd . . . . . : 1051
Bläddra i sidled . . . . .

Rad  . . . + . . . 1 . . . + . . . 2 . . . + . . . 3 . . . + . . . 4 . . . + . . . 5 . . . + . . . 6 . . . + . . . 7 . .
KNAKTK  KNKNDN      KNSPEN  KNNAMN      KNADR1
000001  9          0      790 518    3063
000002  9          1      790 927
000003  9          2      790 930    SKYLTMATERIAL-AFFISCHER =====
000004  9          3      820 716    PROVER OCH BROSCHYRER
000005  9          4      850 627    TESTKUND TP
000006  9          10     791 023    DEBET      * KREDIT      *
```

You can pan sideways and scroll onwards.

## References for database file

If the object you selected is a file (table/physical file) next thing you see is a list of all access paths (views/logical files) that are dependent on the one you selected.

```
S78CE350      References for database file      23-09-18
A0            08.52.46

-----
File name      Type      Description      Last used      Number programs  PRXFILES
ACANTYPR      PF        Anläggningstyper  2022-10-21      2

-----
Options 1= Add to worklist 5=Display source P=Work with referred programs
? Ref file      Type      Description      Last used      Number programs
- ACANTYPR      PF        Anläggningstyper  2022-10-21      2
- ACANTYPA      LF        Nyckel:ATP        IMMED          1
- ACANTYPB      LF        Nyckel:BML        IMMED
```

The information you see is:

- File name (object name)
- Type (PF = Table, LF = View)
- Description
- Last used date for this object
- Number of programs that use this object.

Possible actions (selected per line):

1 = Add object to worklist (see below)

5 = View source for object (based on recorded source information for object)

P = Work with list of program objects that use the selected access path (file)

## Add to worklist.

This function is used from multiple sub functions in the application.

This window shows:

```
Select worklist Options 1=Create New X=Select PRXADDWRK
Add object: ACANTYPA Library: DCPOBIO Type: *FILE
Nyckel:ATP IMMED
Enter worklist name/description or select existingworklist
(if already in worklist indicated below!)
? Worklist
- _____
```

Select an existing worklist or enter a worklist name and description. Press enter.

To create a new worklist – enter “1” in the field after the question mark.

```
(if already in worklist indicated below!)
? Worklist
1 GROUPA_001 Change asset control application_____
```

If you press enter without creating or selecting a worklist the function exits without adding object to any worklist.

If the object is already existing in one (or more) worklist the worklist name in the subfile is highlighted (color red). In this case the worklist cannot be selected.

If worklists exist, you can select a worklist like this:

```

Select worklist Options 1=Create New X=Select PRXADDWRK
Add object: ACANTYPB Library: DCPOBIO Type: *FILE
Nyckel: BML IMMED
Enter worklist name/description or select existing worklist
(if already in worklist indicated below!)
? Worklist
X GROUPA_001 Change asset control application
  
```

## View source

Use option 5 to view the registered source code for the object.

Thus invokes the view option of the SEU (source entry utility).

```

SEU==>
FMT A* ..... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... 8
***** Beginning of data *****
0001.00 A*****
0002.00 A* 5797-AWT (C) COPYRIGHT IBM CORP 1989
0003.00 A* LICENSED MATERIAL - PROGRAM PROPERTY OF IBM
0004.00 A* ANLÄGGNINGSTYP - LOGISK ACANTYPA
0005.00 A* NYCKEL : ANLÄGGNINGSTYP
0006.00 A*****
0007.00 A*
0008.00 A UNIQUE
0009.00 A ALTSEQ (CGTABELL)
0010.00 A R ACANTYP PF FILE (ACANTYPR)
0011.00 A*
0012.00 A K ACATP R
0013.00 A*
***** End of data *****
  
```

## Work with referred programs

This option calls the screen to work with a list of programs that use the specified file.

### Programs using specified file screen.

```

S78CE350 Programs using specific file 23-09-18
A0 09.12.30
PRXPGMF
-----
File name Type Description Last used Number programs
ACANTYPR PF Anläggningstyper 2022-10-21 2
-----
Options 1= Add to worklist 5=Display source P=Work with referred programs
? Program Type Description Last used
_ CGCSTAND CLP Kopiera standardvärden
_ CGCSTAND CLP Kopiera standardvärden
-----
F3 = Exit F12=Back
  
```

Basic information on the file referenced by the list of programs is displayed at the top.

The list are shows information on all programs that use the file:

- Program name
- Program type
- Description
- Last used date (in this case the date is zeros as programs are not in use)

Options available are:

1= Add to worklist See previous section on how objects are added to worklists.

5= Display source. Calls SEU option 5.

P= Work with referred program. This selects the program and displays all references for the selected program. See next section.

R= Work with programs that call this selected program.

## References for program

When a specific program is selected this function displays all objects (regardless of type) that the program uses in any way.

Like this:

```
S78CE350          References for program          23-09-18
A0                09.22.02
PRXPGMS

-----
Program          Type          Description          Last used          Objects referenced
CGCSTAND         CLP          Kopiera standardvärden          106
-----

Options 1= Add to worklist 5=Display source P=Work with referred object (program or file)
? Ref obj      Type          Description          Last used          Number programs
- *LDA          *DTAARA       Kopiera standardvärden          797
- AAANPMTR     *FILE         Kopiera standardvärden
- AAANPMTR     *FILE         Anläggningsposter          2022-10-21          2
- ACANTYPR     *FILE         Anläggnings typer          2022-10-21          2
- ACANTYPR     *FILE         Anläggnings typer          2022-10-21          2
- AGARTGUR     *FILE         Artikelgruppsregister          2022-10-21          2
- AGARTGUR     *FILE         Artikelgruppsregister          2022-10-21          2
- AHARTMUR     *FILE         Artikelregister huvudpost          2022-10-21          2
- AHARTMUR     *FILE         Artikelregister huvudpost          2022-10-21          2
- AIANINDR     *FILE         Anläggningsredovisning indextabell          2022-10-21          2
- AIANINDR     *FILE         Anläggningsredovisning indextabell          2022-10-21          2
- ALARTMAR     *FILE         Artikelregister lagerpost          2022-10-21          2
-----
F3 = Exit      F5=Display this source      F12=Back
```

At the top you see:

- Object name
- Program type
- Description
- Last used date (or zeros)
- How many objects the program uses.

In the list section you see:

- Object name
- Object type
- Description
- Last used date
- How many programs refer to the object.



Options available are:

1= Add to worklist (see previous description on how this is done)

5 = Display source code for object

P= Work with referred object.

R= Work with programs that call this specific program

For option P there are two alternatives:

- If the object is a database file, the function finds the name of the table/physical file that is the main object in the database references for the selected file. You will then see the references for database file display (shown previously) and continue from there.
- If the object is a program the references for program function is called for the selected object.

## Work with list of programs that call a specific program.

```
S78CE350      Programs referring to selected program      23-09-19
A0                                                    20.46.45
                                                    PRXPGMX
```

---

Program	Type	Description	Last used	Objects referenced
FUR133F	RPGLE	Fråga fakturaregister	2023-09-12	36

---

```
Options 1= Add to worklist 5=Display source P=Work with program R=Programs referring to this one
? Ref obj  Type      Description      Last used      Number programs
- MENYKR   *PGM      Meny kundreskontra  2023-09-18    2
- MENYKR   *PGM      Meny kundreskontra  2023-09-18    2
```

---

```
F3 = Exit  F5=Display this source  F12=Back
```

You will see a list of all programs that call the selected program.

Options you can use are:

- 1= Add to worklist
- 5= Display source
- P= Work with objects used by this program
- R= Work with list of programs that call this program

## Work with worklists (menu option 4)

```
S78CE350          PRX Work with worklists          23-09-18
AO                                                         09.35.42
                                                         PRXWRKLIST
-----
Select worklist (X) :
? Work list      Description          Number of objects
- GROUPA_001    Change asset control application          3
F3=Exit
```

On the main display for the function, you will see a list of all worklists that have been created.

For each worklist (in the detail area) you will see:

- Worklist name
- Description
- How many objects exist for the worklist.

Select the worklist you want to work with. Enter an “X” on the selected line.

### Detail screen

```
S78CE350          PRX Work with worklists          23-09-18
AO          Details          09.42.10
Worklist: GROUPA_001  Description: Change asset control application
-----
4= Delete from worklist
? Object      Type      Attributes Source lib  Src file  Src Member  Description
- ACANTYPA    *FILE    LF        QDDSSRC  CG100    ACANTYPA   Nyckel:ATP          IMMED
- ACANTYPB    *FILE    LF        QDDSSRC  CG100    ACANTYPB   Nyckel:BML          IMMED
- CGCSTAND    *PGM     CLP       QCLSRC   CG100    CGCSTAND   Kopiera standardvärden
F3=Exit  F12=Back  F10=Copy source to work source  F23=Clear worklist
```

You will see all objects that have been added to the worklist:

- Object name
- Type (\*FILE or \*PGM)
- Subtype (LF, CLP, CLLE, RPGLE...)

- Source file
- Source library
- Source member
- Description

Options available:

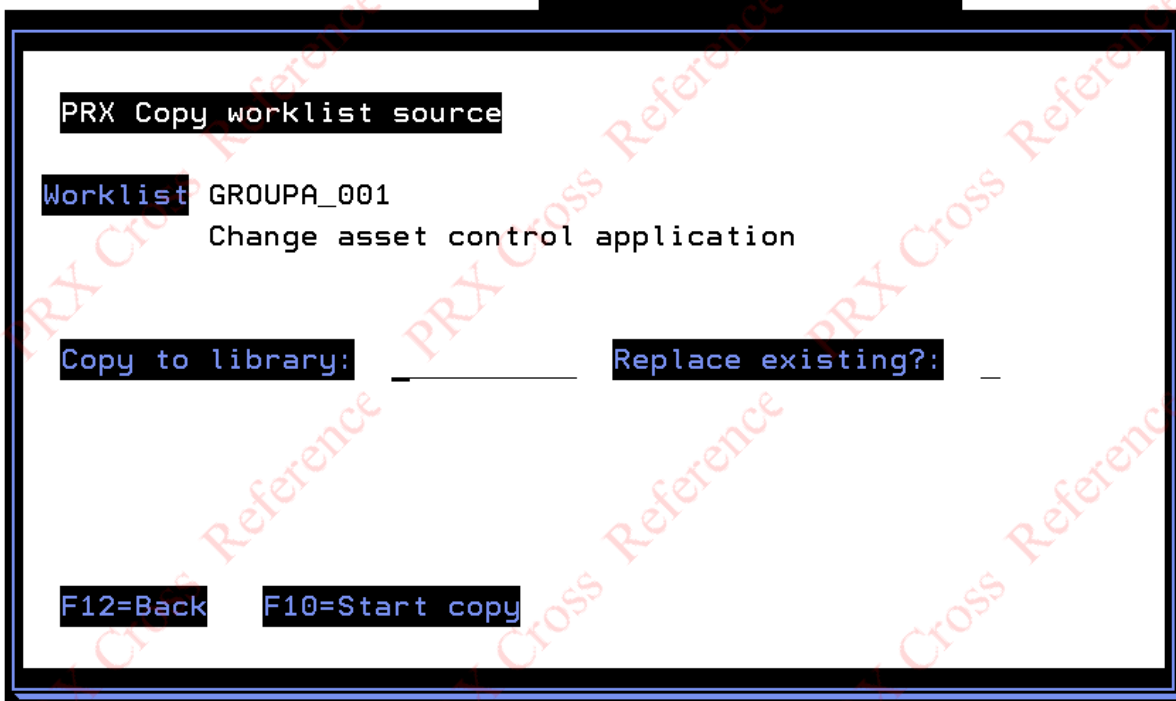
4= Remove selected object from worklist

Function keys available:

F10 = Copy the source code to another library (see below)

F23 = Clear all objects from worklist (same as deleting the worklist with no other action).

F10 Copy source function.



Enter:

- Library to copy to
- Replace existing "Y" if same source member in target library should be overwritten.

Use:

F10 key to perform the copy.

- If the target library does not exist no copy is performed
- If the source file does not exist, it will be created.
- If the member already exists and replace-existing is not "Y" the member is not copied

Example if target is set to QTEMP:

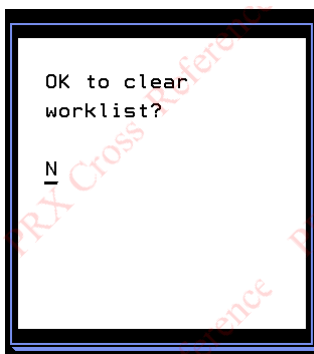
```
Work with Objects Using PDM                               S78CE350
Library . . . . . QTEMP                               Position to . . . . .
Position to type . . . . .

Type options, press Enter.
2=Change      3=Copy      4=Delete      5=Display      7=Rename
8=Display description  9=Save      10=Restore     11=Move ...

Opt Object      Type      Attribute  Text
--  ---
  1  QCLSRC      *FILE     PF-SRC     Created by PRX
  2  QDSSRC      *FILE     PF-SRC     Created by PRX
```

F23 to clear (delete worklist)

Verify that this is what you want to do (enter "Y" on the window)



## Technical stuff

The distribution includes all source and object for the functions.

Everything is supplied free of charge and “as-is”.

All usage is at the user’s own discretion.

### List of objects:

#### Programs

Object	Type	Attribute	Text
PRX	*PGM	CLLE	Go to PRXMENU
PRXADDWRK	*PGM	RPGLE	Add to worklist.
PRXCHXEX	*PGM	CLLE	Check if supplied member exists.
PRXCPYSRC	*PGM	CLLE	PRX Copy source.
PRXFILES	*PGM	RPGLE	Work file files per file
PRXGEN	*PGM	RPGLE	Generate Xref files for PRX.
PRXMAIN	*PGM	RPGLE	Main program for PRX
PRXMAINT	*PGM	RPGLE	Maintain prxlibs.
PRXPGMF	*PGM	RPGLE	Work w programs per specific file
PRXPGMS	*PGM	RPGLE	PRX References by program
PRXUPOBJD	*PGM	RPGLE	Update object description with source
PRXWRKLIST	*PGM	RPGLE	Work with worklist.

#### Files

Object	Type	Attribute	Text
PRXADDWRK	*FILE	DSPF	Add to worklist.
PRXDDBR	*FILE	PF-DTA	Utfil för DSPDBR
PRXFILES	*FILE	DSPF	Database relations and programs using
PRXLIBS	*FILE	PF-DTA	Libraries to generate xref for
PRXMAIN	*FILE	DSPF	Main display for PRX
PRXMAINT	*FILE	DSPF	Maint list of libraries
PRXMENU	*FILE	DSPF	
PRXOBJD	*FILE	PF-DTA	Utfil för DSPOBJD
PRXPGMF	*FILE	DSPF	Programs using a specific file.
PRXPGMREF	*FILE	PF-DTA	Utfil för DSPPGMREF
PRXPGMS	*FILE	DSPF	Program object relations
PRXWRKLIST	*FILE	DSPF	PRX Work with worklists.
PRXWRKPF	*FILE	PF-DTA	Worklist file

## Other

PRXMENU	Menu
PRX	Command
PRXGEN	Command
PRXMAIN	Command
PRXMAINT	Command
PRXWRKLST	Command

## Source

### QCLSRC

Member	Type	Text
PRX	CLLE	Go to PRXMENU
PRXCHXEX	CLLE	Check if supplied member exists.
PRXCPYSRC	CLLE	PRX Copy source.

### QCMDSRC

Member	Type	Text
PRX	CMD	Goto PRXMENU
PRXGEN	CMD	Maintenance libraries
PRXMAIN	CMD	Command for work with cross reference
PRXMAINT	CMD	Maintenance libraries
PRXWRKLST	CMD	Work with worklists.

### QDDSSRC

Member	Type	Text
PRXADDWRK	DSPF	Add to worklist.
PRXDDBR	PF	Utfil för DSPDBR
PRXFILES	DSPF	Database relations and programs using them.
PRXLIBS	PF	Libraries to generate xref for
PRXMAIN	DSPF	Main display for PRX
PRXMAINT	DSPF	Maint list of libraries
PRXMENU	MNUDDS	
PRXMENUQQ	MNUCMD	
PRXOBJD	PF	Utfil för DSPOBJD
PRXPGMF	DSPF	Programs using a specific file.
PRXPGMREF	PF	Utfil för DSPPGMREF
PRXPGMS	DSPF	Program object relations
PRXPGMX	DSPF	Programs that call a program
PRXWRKLST	DSPF	PRX Work with worklists.
PRXWRKPF	PF	Worklist file

## QRPGLESRC

<b>Member</b>	<b>Type</b>	<b>Text</b>
PRXADDWRK	SQLRPGLE	Add to worklist.
PRXFILES	SQLRPGLE	Work file files per file
PRXGEN	SQLRPGLE	Generate Xref files for PRX.
PRXMAIN	SQLRPGLE	Main program for PRX
PRXMAINT	SQLRPGLE	Maintain prxlibs.
PRXPGMF	SQLRPGLE	Work w programs per specific file
PRXPGMS	SQLRPGLE	PRX References by program
PRXPGMX	SQLRPGLE	PRX Programs that call a program
PRXUPOBJD	SQLRPGLE	Update object description with source for ILE pgm
PRXWRKLST	SQLRPGLE	Work with worklist.



## Important considerations

Several programs have activation group set as \*NEW.

This is really important since several functions require recursive program calls to be performed.

An example is that program for references by program could list a program that is called by the main program. When you select the called program the references by program function essentially calls itself with another set of parameters. The only way that this works if by using activation group new.

Though I have not encountered this in theory and depending on your work environment in extreme situations you might create so many activation groups that you use a lot of memory and have issues.

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Flowchart – search and reference functions

