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## Carsten's Corner: Compare Object Authority for a Group of Objects

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In the May 18, 2011, issue of the newsletter I presented the Compare Object Authority (CMPOBJAUT) command which, true to its name, compares the authority-related attributes of two specified objects. Given the situation in which you want to perform such a comparison for a group of objects, there's now another new command that can help you accomplish this task in a single execution: the *Work with Object Authority (WRKOBJAUT)* command.

The WRKOBJAUT command allows you to select a generic group of objects (e.g., AP\*) or \*ALL objects in a specified library. Each object is compared to either a reference object or the corresponding object in a different library. You have the option of further narrowing the selected object range by criteria such as Object Attribute, User-defined Attribute, Creator User Profile, Owning User Profile, as well as Object Create, Change, and Last-used Date ranges.

Here's the WRKOBJAUT command's prompt display:

```

Work with Object Authority (WRKOBJAUT)

Type choices, press Enter.

Object . . . . . Name, generic*,
*ALL
Library . . . . . *CURLIB Name, *CURLIB

Object type . . . . . *ALL *ALRTBL, *AUTL,
*BNDDIR...
Reference library . . . . . Name, *REFOBJ

Reference object . . . . . Name

Library . . . . . *CURLIB Name, *CURLIB

Object status . . . . . *ALL *ALL, *OBJFAIL,
*OBJPASS...
+ for more values
  
```

```

Object attribute . . . . . *ALL

Object user defined attribute . *ALL      Character value,
*ALL
Created by user profile . . . . *ALL      Name, *ALL

Owned by user profile . . . . . *ALL      Name, *ALL

Create date after:

Create date . . . . . *NONE      Date, *NONE,
*CURRENT
Create time . . . . .          Time, *BEGIN,
*CURRENT
Change date after:

Change date . . . . . *NONE      Date, *NONE,
*CURRENT
Change time . . . . .          Time, *BEGIN,
*CURRENT
Last used date after:

Last used date . . . . . *NONE      Date, *NONE,
*CURRENT
Last used time . . . . .          Time, *BEGIN,
*CURRENT
List order . . . . . *OBJ        *OBJ, *TYPE

Output . . . . . *              *, *PRINT

```

You can also specify one or more object comparison tests to include in the output list. This is very helpful for cases in which you are investigating a specific object authority issue. Here's a complete list of available object tests and their explanations:

### Single values:

```

*ALL

    All objects are included in the list, irrespective of the outcome
of the
    object authority information comparison.

*OBJFAIL

    Only objects failing one or more of the object authority
information
    comparison tests are included in the list.

```

**\*OBJPASS**

Only objects passing all object authority information comparison tests are included in the list.

**\*OBJFAILX**

Only objects failing one or more of the object authority information comparison tests, excluding the reference object existence test, are included in the list. This implies that only objects identified by name and type that exist in both libraries will be listed.

**Special values (up to 12 values can be specified together):****\*AUTCNT**

Objects that have different number of private authorities are included in the list.

**\*AUTEXCS**

Objects that have one or more private authority users who are not associated with the reference object are included in the list.

**\*AUTLACK**

Objects that do not have one or more private authority users who are associated with the reference object are included in the list.

**\*FLDAUT**

Database file objects that have a different field authority setting than the reference object are included in the list.

**\*OBJAUTL**

Objects not being associated with the same authorization list as the reference object are included in the list.

**\*OBJOWN**

Objects owned by a user profile different from the one owning the reference object are included in the list.

**\*OBJNOTFND**

Objects that do not have a corresponding reference object are included in the list.

**\*OBJPGP**

Objects not being associated with the same primary group profile as the reference object are included in the list.

**\*PVTAUT**

Objects granting private authority to a user profile not being granted private authority to the reference object are included in the list.

**\*PUBAUT**

Objects that have a public authority setting different from the reference object are included in the list.

**\*USRPRF**

Program objects having a different USRPRF attribute than the reference program object are included in the list.

**\*USEADPAUT**

Program objects having a different USEADPAUT attribute than the reference program object are included in the list.

The resulting list can be viewed in either a Work with-panel or as a printed list. If you select output to the Work-with panel (i.e. OUTPUT(\*)), you have several operations that can be applied against the listed objects. See the display below.

You can specify a specific object, a generic object name, or the special value \*ALL, if all object types should be included in the list. The latter is only supported if a reference library is specified. You must specify a single object type if you instead choose to specify a reference object. The WRKOBJAUT command and all its parameters are fully documented in the associated cursor-sensitive Help text panel group. To demonstrate the output of the WRKOBJAUT command, I executed the command below on my system:

```

WRKOBJAUT OBJ(TESTLIB/C*)
          OBJTYPE(*ALL)
          REFLIB(PRODLIB)
          STATUS(*OBJFAILX)

```

Due to the number of objects meeting the selection criteria, the command ran for a little while and then produced the following Output list panel:

```

                                Work with Object Authority

WYNDHAMW                                05-06-11

15:05:38
  Object . . . . . : C*          Object type . . . . . :
*ALL
  Library . . . . . : TESTLIB    Reference library . . :
PRODLIB

Type options, press Enter.

  2=Edit authority   3=Copy     4=Revoke authority   5=Work with
object
  6=Grant authority  7=Change owner  8=Compare     9=Change primary
group

                                Status

  Opt  Object      Type      Count  Status

      CBX135M      *PGM          2  Public authority does not match

      CBX152        *SRVPGM        3  Private authority user profile(s)
in excess
      CBX153        *SRVPGM        1  Program USRPRF attribute does not
match
      CBX153C       *MODULE        2  Public authority does not match

      CBX153C       *PGM          3  Private authority user profile(s)
missing
      CBX1531       *MODULE        2  Public authority does not match

      CBX1531       *PGM          1  Object owner not the same

More...
Parameters or command

===>

F3=Exit   F4=Prompt   F5=Refresh   F9=Retrieve   F11=Display object

```

```
details
  F12=Cancel    F17=Top    F18=Bottom
```

The object list will show how many statuses (i.e., tests) the object authority attribute comparison process uncovered, as well as the status text for the first one found. In the event that more than one status is found, you can use Option 8=Compare to evoke the Compare Object Authority (CMPOBJAUT) command to identify all object statuses. When the Compare Object Authority panel is displayed, simply press function key F7 to see the complete status list for the selected object.

The List panel also includes list options that allow you to immediately execute various object- and authority-related commands against the selected objects in order to further investigate or correct the current object authority status. The List panel also offers an alternate view, including information about the object owner, primary group, authorization list, and public authority. As always, the List panel, the List panel options, as well as the List panel function keys are all explained in detail in the accompanying Help text.

The following source members are involved in creating the WRKOBJAUT command:

```
CBX808  -- RPGLE  -- Work with Object Authority - CPP
CBX808C -- RPGLE  -- Work with Object Authority - Choice Program
CBX808H -- PNLGRP -- Work with Object Authority - Help
CBX808P -- PNLGRP -- Work with Object Authority - Panel Group
CBX808V -- RPGLE  -- Work with Object Authority - VCP
CBX808X -- CMD    -- Work with Object Authority

CBX807  -- RPGLE  -- Compare Object Authority - CPP

CBX808M -- CLP    -- Work with Object Authority - Build command
```

**You can [download a zip file containing the source code here](#).**

To create all above objects, compile and run CBX808M, following the instructions in the source header. As always, you can also find compilation instructions in the respective source headers. For the WRKOBJAUT command to function and work properly, the CMPOBJAUT command presented earlier must be correctly installed.

**Note:** I've fixed a minor bug in the CMPOBJAUT command and therefore have included the revised version of the command processing program CBX807 here. The CBX808M program will automatically recreate the CBX807 program.

Related article:

[Carsten's Corner: New Utility to Compare Object Authority](#)

**Source URL:** <http://iprodeveloper.com/security/carstens-corner-compare-object-authority-group-objects>