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APIs by Example: Profile Authorization Management

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Thu, 03/31/2005 (All day)

This time around, the API by Example is based on the Retrieve Users Authorized to an Object (QSYRTVUA) API. This API returns all private authorities to any object in the Integrated File System (IFS), including those in the QSYS.LIB file system. The Retrieve Authority (RTVAUT) command uses this capability to retrieve authority values and authority related object attributes of the object specified as the command's primary parameter.

Like other IFS-related commands, the RTVAUT command and the QSYRTVUA API expect the object to be specified as a path name. Menu FILESYS offers an entry point to the operating system's IFS related commands, in case you want to have a closer look at these commands.

The RTVAUT command prompt is shown below. Like all retrieve commands, it can only be run from inside a CL program:

```

= = = = =
                                Retrieve Authority (RTVAUT)
Type choices, press Enter.
Object link . . . . .
User:

Reference user . . . . . *FIRST      Name, *FIRST, *PUBLIC
Relationship . . . . . *SAME, *NEXT
CL var for RTNUSER      (10) . .    Character value
CL var for NBRAUTUSR    (10 0) . .   Number
CL var for OWNER        (10) . .    Character value
CL var for PGP           (10) . .    Character value
CL var for AUTL          (10) . .    Character value
CL var for *ALL          (10) . .    Character value
CL var for *CHANGE       (10) . .    Character value
CL var for *USE          (10) . .    Character value
CL var for *EXCLUDE      (10) . .    Character value
CL var for *OBJALTER     (10) . .    Character value
CL var for *OBJEXIST     (10) . .    Character value
CL var for *OBJMGT       (10) . .    Character value
CL var for *OBJOPR       (10) . .    Character value
CL var for *OBJREF       (10) . .    Character value
CL var for *READ         (10) . .    Character value
CL var for *ADD          (10) . .    Character value
CL var for *UPDATE       (10) . .    Character value
CL var for *DELETE       (10) . .    Character value
CL var for *EXECUTE      (10) . .    Character value

```

```
CL var for *AUTLMGT      (10) . .      Character value
= = = = = = = = = = = = = = = = = = = = = = = = = = = = =
```

The command's parameters are explained in detail in the help panel group that is included. The command is designed to assist in three different situations:

a) It can retrieve an object's general authority related attributes. To do this, specify user *PUBLIC as follows:

```
RtvAut  ObjLnk( '/QSYS.LIB/QCMD.PGM' )
        User( *PUBLIC *SAME )
        Owner( &OWNER )
        Pgp( &PGP )
        AutL( &AUTL )
```

This example retrieves the owner, primary group, and authorization list of the program QCMD in library QSYS.

b) It can retrieve a specific user's authority to an object:

```
RtvAut  ObjLnk( '/qopensys/QUSER' )
        User( GARY )
        Change( &CHANGE )
```

The above example retrieves user profile GARY's private CHANGE authority to the IFS object '/qopensys/QUSER'. If the user has change authority '*CHANGE' is returned, otherwise blanks are returned.

c) List all private authorities to an object:

```
RtvAut  ObjLnk( '/QSYS.LIB/QGPL.LIB/PAYDATA.FILE' )
        User( *FIRST )
        RtnUser( &RtnUsr )
        NbrAutUsr( &NbrAutUsr )
        Change( &ChgAut )

RtvAut:
  If      ( &NbrAutUsr > 0 )          Do
  ChgVar  &NbrAutUsr      ( &NbrAutUsr - 1 )
  /*-- Do whatever ... --*/
  If      ( &NbrAutUsr > 0 )          Do
  RtvAut  ObjLnk( '/QSYS.LIB/QGPL.LIB/PAYDATA.FILE' )
          User( &RtnUsr *NEXT )
          RtnUser( &RtnUsr )
          Use( &UseAut )

  GoTo    RtvAut
  EndDo
  EndDo
```

The above code snippet lists all user profiles that have private authority to the PAYDATA file in library QGPL. If a user profile has USE authority, *USE is returned; otherwise, blanks are returned.

The RTVAUT command includes the following sources:

```
CBX133  -- Command processing program.  
  
CBX133H -- Command help text panel group.  
  
CBX133X -- Command definition source member.  
  
CBX133T -- Sample program using the RTVAUT command.
```

Compilation instructions are found in the source headers.

This article demonstrates the following APIs:

Retrieve Users Authorized to an Object (QSYRTVUA) API:

<http://publib.boulder.ibm.com/series/v5r1/ic2924/index.htm?info/apis/qsyrvtua.htm>

Send Program Message (QMHSNDPM) API:

<http://publib.boulder.ibm.com/infocenter/series/v5r4/index.jsp?topic=/apis/QMHSNDPM.htm>

You can retrieve the source code for this API example from

www2.systeminetwork.com/code/clubtechcode/rtvauth.zip .

The above article was written by Carsten Flensburg. If you have any questions, you can contact Carsten at <mailto:flensburg@novasol.dk> .

Source URL: <http://iprodeveloper.com/rpg-programming/apis-example-profile-authorization-management>