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APIs by Example: Retrieve ASP Information, Part 1

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[Carsten Flensburg](#)

Carsten Flensburg

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This week's issue of APIs By Example will focus on the Open List of ASPs (QYASPOL) API. This API is capable of returning different types of information about ASPs, including ASP configuration, ASP attributes, and disk units. As you probably already know, ASP is an abbreviation for Auxiliary Storage Pool, which in turn is a term describing a collection of disk units on the iSeries system.

The following IBM technical document details the different types of ASPs available, as well as their usage:

[http://www-912.ibm.com/s_dir/slkbase.NSF/o/802643df554de73586256d930060d7c4?](http://www-912.ibm.com/s_dir/slkbase.NSF/o/802643df554de73586256d930060d7c4?OpenDocument)

[OpenDocument](#)

I have written the Retrieve ASP Information (RTVASPINF) command to demonstrate the use of the QYASPOL API. The command also serves as an example of the information made accessible by this API.

The RTVASPINF command returns a number of the basic attributes included in the APIs YASPO200 format. In the next installment of APIs By Example, I will present yet another command, based on the YASPO300 format that offers information about each of a system's individual disk units.

The command prompt below displays all the ASP attributes that can be retrieved by the RTVASPINF command:

```

=====
                        Retrieve ASP Information (RTVASPINF)
Type choices, press Enter.
ASP number . . . . . *SYSASP          2-255, *SYSASP
CL var for RTNASP      (3 0) . .      Number
CL var for NBRUNIT     (10 0) . .     Number
CL var for CAPTOT      (10 0) . .     Number
CL var for CAPAVL      (10 0) . .     Number
CL var for CAPTOTPTC   (10 0) . .     Number
CL var for CAPAVLPTC   (10 0) . .     Number
CL var for CAPTOTUNP   (10 0) . .     Number
CL var for CAPAVLUNP   (10 0) . .     Number
CL var for SYSSTG      (10 0) . .     Number
CL var for OFLSTG      (10 0) . .     Number
CL var for THRESHOLD   (3 0) . .     Number
CL var for ASPTYP      (2) . .        Character value
CL var for BALSTS      (1) . .        Character value
CL var for BALTYP      (1) . .        Character value
CL var for BALDATTIM   (13) . .       Character value
CL var for BALDTAMOV   (10 0) . .     Number

```

```

CL var for BALDTAREM  (10 0) . .      Number
CL var for TRCSTS      (1) . .      Character value
CL var for TRCDUR      (10 0) . .      Number
CL var for TRCDATTIM   (13) . .      Character value
= = = = =

```

As always, a help panel group that explains the individual attributes in detail is included.

Below you will find an example of how the RTVSPINF command can be put to use in a CL program:

```

RtvAspInf  Asp( *SYSASP )          +
           RtnAsp( &RtnAsp)        +
           NbrUnit( &NbrUnit )     +
           CapTot( &CapTot )       +
           CapAvl( &CapAvl )       +
           Threshold( &Threshold ) +
           AspTyp( &AspTyp )
ChgVar     &AspUsedPct  (( &CapTot - &CapAvl ) * 100 ) / &CapTot )
ChgVar     &StgBufPct   ( &Threshold - &AspUsedPct )
If ( &StgBufPct

```

The above code is included in a sample CL program (CBX136T).

If you are interested in even more information about ASPs and disk units than the QYASPOL API can provide, it is worth taking a look at the Materialize Resource Management Data (_MATRMD) MI built-in. The documentation can be found online here:

http://publib.boulder.ibm.com/iserics/v5r1/ic2924/tstudio/tech_ref/mi/MATRMD

The _MATRMD MI built-in is capable of delivering many different sets of resource management data, ASP information being just one of them. You can find a description of all the different options in the header of the above documentation. To go directly to the ASP information section, use the link below:

http://publib.boulder.ibm.com/iserics/v5r1/ic2924/tstudio/tech_ref/mi/MATRMD

I have included a sample program (CBX136M) showing you how to use the _MATRMD MI built-in to retrieve ASP and disk unit information. This program can also be used as a template for programs using any of the other _MATRMD options.

The RTVASPINF command can be created from the following source members:

CBX136 -- Command processing program.

CBX136X -- Command definition source member.

CBX136H -- Command help text panel group.

Compilation instructions are found in the source headers.

This article demonstrates the following APIs:

Open List of ASPs (QYASPOL) API:

<http://as400bks.rochester.ibm.com/iseriess/v5r2/ic2924/info/apis/qyaspol>.

Close List (QGYCLST) API:

<http://as400bks.rochester.ibm.com/iseriess/v5r2/ic2924/info/apis/qgyclst>.

Send Program Message (QMHSNDPM) API:

<http://publib.boulder.ibm.com/iseriess/v5r2/ic2924/info/apis/QMHSNDPM.htm>

You can retrieve the source code for this API example from

http://www.pentontech.com/IBMContent/Documents/article/50961_23_RtvAspIn



Source URL: <http://iprodeveloper.com/rpg-programming/apis-example-retrieve-asp-information-part-1>