

## APIs by Example: Working with NetServer Information and All the Server Support APIs

[\*System iNetwork Programming Tips Newsletter\*](#)

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Thu, 10/27/2011 (All day)

Today, I complete the article series covering the Server Support APIs and that so far has brought you a number of NetServer CL commands based on these APIs. The NetServer command at this point missing in the aforementioned collection is the Work with NetServer (WRKNETSVR) command. The WRKNETSVR command employs the Open List of Server Information (QZLSOLST) API discussed in detail in the recent installment of APIs by Example, and further provides an interface to NetServer-related functionality, such as NetServer share management, NetServer user management, and NetServer session management.

This NetServer-related functionality is based on yet another range of Server Support APIs that I've previously presented in a series of articles in the [System iNetwork Systems Management newsletter](#), and that provide CL management commands for a variety of NetServer management tasks. Because these commands, in addition to providing NetServer management capabilities, also demonstrate the use of the involved Server Support APIs, all these utilities have been included with the download zip file for this article. For a brief discussion of each of the NetServer utilities, please look up the accompanying articles, to which links have been provided at the end of today's article.

This article therefore includes a total of 10 NetServer CL commands and corresponding Server Support API examples. The WRKNETSVR command and the commands invoked from the WRKNETSVR command's list panel are additionally taking advantage of a number of Work Management CL commands delivered with recent installments of the APIs by Example column. At the end of this article, I've included links to the APIs by Example articles discussing and documenting these prerequisite CL commands, so if you haven't already done so, be sure to download and install all the utilities from these articles if you want the WRKNETSVR command to be fully functional.

In addition to the WRKNETSVR command, the NetServer CL commands for which the source code and installation programs are provided with this article are:

- Change NetServer User (CHGNETUSR) - Change server information (QZLSCHSI) API
- Work with NetServer User (WRKNETUSR) - Open list of server information (QZLSOLST) API
- Add Server Share (ADDSVRSHR) - Add file server share (QZLSADFS) & Add print server share (QZLSADPS) APIs
- Remove Server Share (RMVSVRSHR) - Remove server share (QZLSRMS) API
- Change Server Share (CHGSVRSHR) - Change file server share (QZLSCHFS) & Change print server share (QZLSCHPS) APIs
- Display Server Share (DSPSVRSHR) - Open list of server information (QZLSOLST) API
- Work with Server Shares (WRKSVRSHR) - Open list of server information (QZLSOLST) API
- Work with Server Sessions (WRKSVRSSN) - Open list of server information (QZLSOLST) API

- End Server Session (ENDSVRSSN) - End server session (QZLSENSS) API

Following each server command I've listed the Server Support API on which the command's functionality is based. The various QZLSOLST API-based utilities employ the ZLSLo900, ZLSLo101, and ZLSLo300 return formats, respectively.

As for the WRKNETSVR command I present today, many of the programming techniques involved are similar to those discussed in the two earlier articles covering the Server Support APIs. I've included links to these articles at the end of this one. The WRKNETSVR command itself does not support any parameters; to invoke the command, you simply type WRKNETSVR on a command line and press Enter. A list panel similar to the one below should then appear:

```

                                Work with NetServer

WYNDHAMW                                                                19-10-11

11:54:22
Type options, press Enter.

    1=Start    2=Change    4=End        5=Display    6=Print    8=Work with
sessions
    9=Work with shares    10=Users    12=Work with server jobs
14=Statistics

Opt  Server          Domain          Status  Description

      WYNDHAMW        WYNDWORLD        RUNNING  Os/400

Bottom
Parameters or command

```

```
===>
```

```
F3=Exit    F4=Prompt    F5=Refresh    F6=Display server messages
F9=Retrieve
F12=Cancel
```

I modeled the design of the WRKNETSVR list panel after a similar command, the Work with SMB Server (WRKSMBSVR) command, which was created by the late Simon Coulter, FlyByNight software of Australia. Simon wrote the WRKSMBSVR command as part of a product called ONcmd, a toolset that offered CL command interfaces for system administrative tasks otherwise accessible only through GUI interfaces or APIs. Simon was an exceptionally talented programmer who frequently shared his impressive knowledge as well as his candid viewpoints on our industry with fellow programmers at midrange.com. Simon was a great source of inspiration in many ways, far beyond the programming profession, and I'm very grateful for having known him.

I've enhanced the original design a little and all in all included the following list options and associated server support commands to the WRKNETSVR panel:

```
1=Start NetServer (STRNETSVR)
2=Change NetServer Attributes (CHGNETSVR)
4=End NetServer (ENDNETSVR)
5=Display NetServer Attributes (DSPNETSVR)
6=Display NetServer Attributes (DSPNETSVR OUTPUT(*PRINT))
8=Work with Server Sessions (WRKSVRSSN)
9=Work with Server Shares (WRKSVRSHR)
10=Work with NetServer Users (WRKNETUSR)
12=Work with Server Jobs (WRKSVRJOB SERVER(*NETSVR))
14=Display NetServer Statistics (DSPNETSTC)
```

The list panel's function key F6 displays the history log QHST for the current date, selecting only NetServer-related messages in the message identifier range CBIB680 to CPIB686. The WRKNETSVR list panel and columns are further explained in detail in the associated cursor-sensitive help text panel group evoked by function key F1. To help you keep track of all the NetServer commands, I've also created a NetServer Command menu:

```
NETSVR
```

```
NetServer Commands
```

```
System:
```

```
WYNDHAMW
```

```
Select one of the following:
```

```
NetServer Commands
```

```
1. Start NetServer
```

```
STRNETSVR
```

```
2. End NetServer
```

```

ENDNETSVR
    3. Display NetServer Attributes
    DSPNETATR
    4. Display NetServer Statistics
    DSPNETSTC
    5. Change NetServer Attributes
    CHGNETATR
    6. Work with NetServer
    WRKNETSVR

    8. Work with Server Jobs
    WRKSVRJOB
    9. Change TCP Server Autostart
    CHGTCPSVRA

    User Commands

    11. Change NetServer User
    CHGNETUSR
    12. Work with NetServer Users
    WRKNETUSR

    More...
    Selection or command

    ===>

    F3=Exit    F4=Prompt    F9=Retrieve    F12=Cancel

```

The second menu page provides access to the server session as well as the server share commands. The NETSVR menu includes help text detailing both the menu panel and all the NetServer commands that can be reached from the menu.

**This APIs by Example includes the following sources:**

```

CBX239  -- RPGLE  -- Work with NetServer - CPP
CBX239E -- RPGLE  -- Work with NetServer - UIM Exit Program
CBX239H -- PNLGRP -- Work with NetServer - Help
CBX239P -- PNLGRP -- Work with NetServer - Panel Group
CBX239X -- CMD    -- Work with NetServer
CBX239U -- UIM     -- NetServer Commands Menu

CBX239M -- CLP     -- Work with NetServer - Build Command

CBX957  -- RPGLE  -- Change NetServer User - CPP
CBX957H -- PNLGRP -- Change NetServer User - Help
CBX957V -- RPGLE  -- Change NetServer User - VCP

```

```

CBX957X  -- CMD      -- Change NetServer User

CBX958   -- RPGLE    -- Work with NetServer User - CPP
CBX958E  -- RPGLE    -- Work with NetServer User - UIM Exit Program
CBX958H  -- PNLGRP   -- Work with NetServer User - Help
CBX958P  -- PNLGRP   -- Work with NetServer User - Panel Group
CBX958V  -- RPGLE    -- Work with NetServer User - VCP
CBX958X  -- CMD      -- Work with NetServer User

CBX960   -- RPGLE    -- Add Server Share - CPP
CBX960H  -- PNLGRP   -- Add Server Share - Help
CBX960V  -- RPGLE    -- Add Server Share - VCP
CBX960X  -- CMD      -- Add Server Share

CBX961   -- RPGLE    -- Remove Server Share - CPP
CBX961H  -- PNLGRP   -- Remove Server Share - Help
CBX961X  -- CMD      -- Remove Server Share

CBX962   -- RPGLE    -- Change Server Share - CPP
CBX962H  -- PNLGRP   -- Change Server Share - Help
CBX962O  -- RPGLE    -- Change Server Share - POP
CBX962V  -- RPGLE    -- Change Server Share - VCP
CBX962X  -- CMD      -- Change Server Share

CBX963   -- RPGLE    -- Display Server Share - CPP
CBX963E  -- RPGLE    -- Display Server Share - UIM General Exit
CBX963H  -- PNLGRP   -- Display Server Share - Help
CBX963P  -- PNLGRP   -- Display Server Share - Panel Group
CBX963V  -- RPGLE    -- Display Server Share - VCP
CBX963X  -- CMD      -- Display Server Share

CBX964   -- RPGLE    -- Work with Server Shares - CPP
CBX964E  -- RPGLE    -- Work with Server Shares - UIM Exit Program
CBX964H  -- PNLGRP   -- Work with Server Shares - Help
CBX964P  -- PNLGRP   -- Work with Server Shares - Panel Group
CBX964V  -- RPGLE    -- Work with Server Shares - VCP
CBX964X  -- CMD      -- Work with Server Shares

CBX986   -- RPGLE    -- Work with Server Sessions - CPP
CBX986E  -- RPGLE    -- Work with Server Sessions - UIM Exit Program
CBX986H  -- PNLGRP   -- Work with Server Sessions - Help
CBX986P  -- PNLGRP   -- Work with Server Sessions - Panel Group
CBX986V  -- RPGLE    -- Work with Server Sessions - VCP
CBX986X  -- CMD      -- Work with Server Sessions

CBX987   -- RPGLE    -- End Server Session - CPP
CBX987H  -- PNLGRP   -- End Server Session - Help
CBX987V  -- RPGLE    -- End Server Session - VCP
CBX987X  -- CMD      -- End Server Session

CBX957M  -- CLP      -- Change NetServer User - Build command
CBX958M  -- CLP      -- Work with NetServer User - Build command
CBX961M  -- CLP      -- Add and Remove Server Shares - Build commands
CBX962M  -- CLP      -- Change Server Share - Build command

```

CBX963M	-- CLP	-- Display Server Share - Build command
CBX964M	-- CLP	-- Work with Server Shares - Build command
CBX986M	-- CLP	-- Server Session Commands - Build commands

To create all these command objects, compile and run the CBX239M CL program and the CBX957M, CBX958M, CBX961M, CBX962M, CBX963M, CBX964M, and CBX986M programs, following the instructions in the source headers. You'll also find compilation instructions in the respective source headers.

### **Prerequisite Utilities:**

The CL commands included with the articles below must be installed on your system in order for all the list options available from the WRKNETSVR list panel, or the display and list panels within navigation reach to these list options, to work properly.

[APIs by Example: Use a Work Management API to List Server Jobs](#)

[APIs by Example: List Open Files API, and the Display Job Open Files Command](#)

[APIs by Example: Hidden Job SQL Information Exposed by Retrieve Job Information API](#)

[APIs by Example: Displaying Job Client IP Address and Job Log Information Using APIs](#)

[APIs by Example: Server Support APIs Providing NetServer Management Facilities](#)

[APIs by Example: Server Support APIs Enable the Change of NetServer Information](#)

### **Related Articles:**

[New CL Command to Enable NetServer Users](#)

[New CL Command to Work with Disabled NetServer Users](#)

[New Commands - Work with NetServer Sessions & End NetServer Session](#)

[New CL Command to Add NetServer Shares](#)

[New CL Command to Remove NetServer Shares](#)

[The Change NetServer Share \(CHGSVRSHR\) Command](#)

[Display a NetServer Share \(DSPSVRSHR\) Command](#)

[New CL Command to Manage NetServer File and Print Shares](#)

### **This article demonstrates the following Server Support APIs:**

[Open List of Server Information \(QZLSOLST\) API](#)

[Add File Server Share \(QZLSADFS\) API](#)

[Add Print Server Share \(QZLSADPS\) API](#)

[Change File Server Share \(QZLSCHFS\) API](#)

[Change Print Server Share \(QZLSCHPS\) API](#)

[End Server Session \(QZLSENSS\) API](#)

[Remove Server Share \(QZLSRMS\) API](#)

[Change Server Information \(QZLSCHSI\) API](#)

[i5/OS Support for Windows Network Neighborhood Server APIs](#)

**[Retrieve the source code for this API example.](#)**

**Source URL:** <http://iprodeveloper.com/rpg-programming/apis-example-working-netserver-information-and-all-server-support-apis>