



Integration ..... SR/MR Systems with PC Display, Storage and Networking  
System Display ..... Multi-Machine Position, Tally, Offset, Track Arm  
Master Display ..... Master Position, Lock & Record Indicators  
Track Arming Control & Indication ..... Track Arming, Track Map, Bank Indication  
Q2Image ..... Visual Cue Point List and Locates  
Hardware Jog/Shuttle ..... USB link to Shuttle-Pro and other Controllers  
Serial Port Server ..... Up to Eight Applications linked to the system at any time  
Multiple Serial Protocols ..... CB Xmc, Sony P2, DVD  
OEM Support Available..... Integration with DAW and Console Software

CB Electronics has developed a new software suite to interface its multi-machine control systems to Windows compatible PCs.

At the heart of the new system is the CB Serial Port Server that allows up to eight applications to access the serial port / Machine Control System at the same time. The serial port may be linked to CB SR/MR systems or directly to a single Sony Protocol Machine.

Up to eight different CB Electronics software applications communicate via the server permitting the use of multiple applications at the same time.

- **System Display**

- Displays the status of all machines in the studio
- Record track arming and display for each machine
- Offset and Sync Points
- Record In And Out
- System Set-up, set, save and recall system set-up, machine set-up and Macro key set-up.
- Displays the Track Arming Layout and Status.
- Follows Selected machine, Enabled machine or System as selected by user.
- Displays all available tracks and selected bank
- Set, Save, and Load System record key layout.

- **Remote Control**

- Windows machine control interface
- Low cost external USB jog and shuttle controller (Contour Shuttle-Pro).

- **Third party applications**

- OEM customers can integrate their products via the server to multi machine control.

The current version of the server is designed to control multiple machines via CB Electronics Xmc protocol, two further versions of the server are planned to provide direct control of any Sony Protocol machine, and to provide direct control of the Pioneer V7300D Industrial DVD Player.

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## CB System display

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The 'CB System Display' gives the user the ability to view current information about the system. The System Display consists of two windows,:

- Master Display
- Full System Display

The system display is designed to run alongside your application for example Console automation or DAW. The master display is a 'stay on top' window that is sizeable and is made up of user selectable panels. The Full System Display displays information on the individual machines.

### Master Display

The Master display consists of multiple panels which the user may combine to suit his application.

#### Master Display main panel with system macro's:



### Main Panel

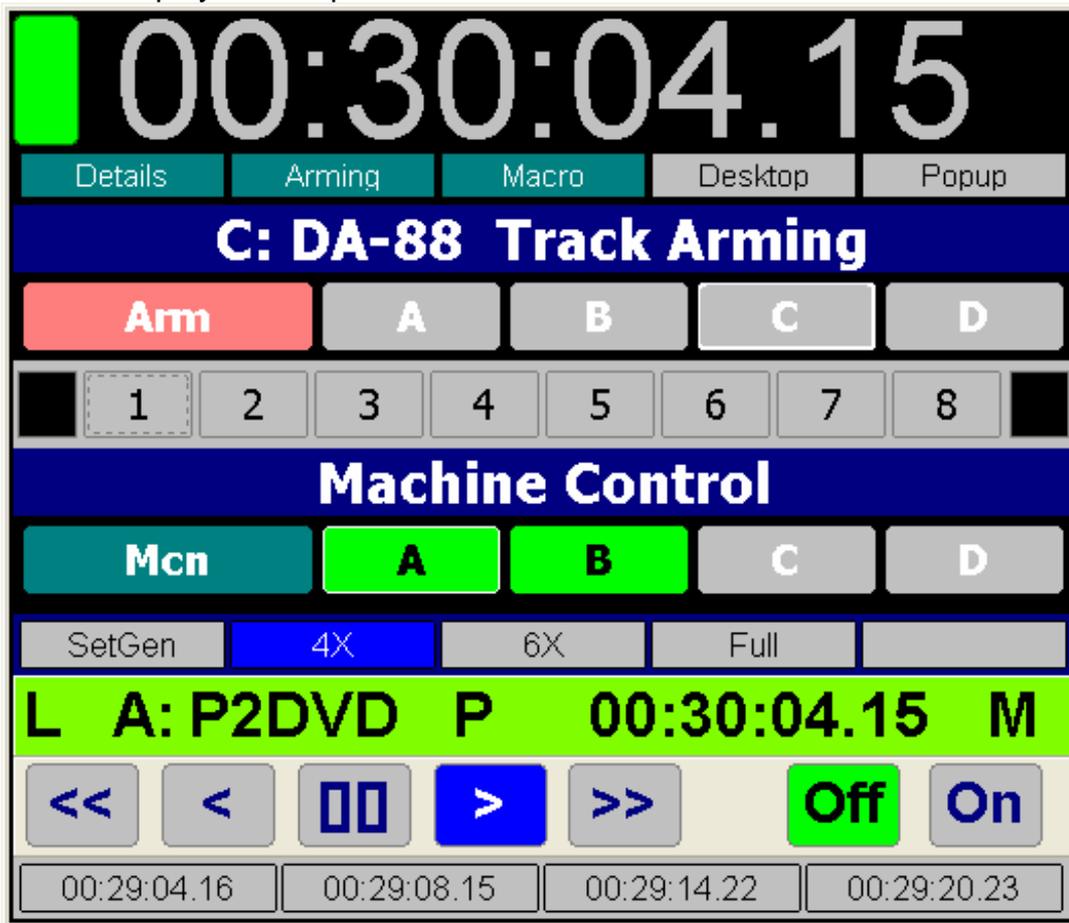
- **Master Position** The size of the master position is used to define the size of this window
- **System Lock LED** Indicates when all machines in the current selected group are locked.
- **System Record LED** Indicates if any machine in the current selected group is in record.

### Optional Panels

- **System Macros:** Visible by default, although any macro command may be selected for these buttons it is assumed that display enable/disable and desktop select keys will be used. Checkout the MinMax key!
- **Track Arming:** Current selected track arm keys, selectable by machine or system track arming.
- **Macro's:** General macro keys normally used for machine control. The number of rows and keys per row is set in Preferences.
- **Machine Select:** Machine select keys
- **Machine Control:** Transport keys, Record In and Record Out
- **Locate:** Locate keys, Right Click to capture a timecode value (displayed on key) Left Click to locate current selected machine, or entry code value using the Key pad windows. The number of rows and keys per row and the selection by row between capture or direct entry is set in Preferences.

**Note:** The number of machine keys displayed on both the track arm panel and the machine select panel is defined by the system attached.

Master Display with all panels active



**Selecting the panels that you want displayed**

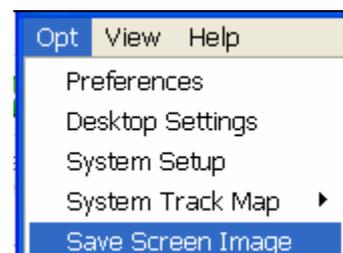
There are several ways of enabling panels

- By right clicking anywhere on the Main Panel a popup menu is displayed, the view panel on the popup menu enables individual panels.
- The system macro keys may be programmed to enable individual panels.
- The MinMax system macro key will enable/disable all selected panels except the system macro panel.
- The Master Display view menu, this is the only way of selecting the System Macro panel.

**Displaying the Master Display Status Bar and Menu**

The menu and status bar at the top of the display will auto-hide when not revealed by the mouse. Move the mouse slowly up the top of the master display to reveal..

**How to Right Click on a Touch Screen:** Touch and hold on the screen, the response time is set in Preferences | Master Display | Response.



## PopUp Menu

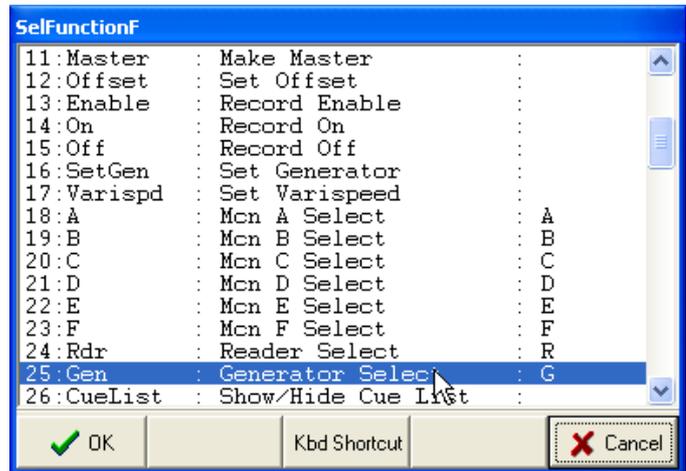
The popup menu provides a simple means to access most of the settings of System Display. It can be opened by right clicking on the main panel of the Master Display. Right Clicking in the title panel of the Full System Display will also open the popup Display.



- **View:** Show or Hide individual panels, use Details to show/hide Full System Display
- **TrackMap:** Load/Save the current system track map to File.
- **Offsets:** Load/Save all machine Offsets to File.
- **Size:** Master Display size, use Page Up and Page Down to make fine adjustments
- **Preferences:** Open System Display preferences menu
- **Desktop:** Open Desktop Menu.
- **Setup:** Open set-up file on CB Synchroniser.

## Macro Button Selection

All keys on the system display window except for the Locate keys and Machine select keys are macro keys, Their function may be changed at any time unless locked. To set the function of a macro key Right click on the key and the SelfFunction Window will be displayed. You can select the function of the key, click OK and the new key will be displayed.



## Keyboard Shortcuts

The Keyboard Shortcut window is accessed from the Macro Button Selection Window and is displayed on the right hand side. On the picture you can see that I have selected A-F as machine selects. The Shortcut window allows you to select the shortcut key by depressing the appropriate key.



## Controlling CServer from an External Keyboard

You can control CServer using a UR422 keyboard or even the SR Keyboard that you are controlling from CServer!

## Controlling CServer from the controlled SR Keyboard

All CB Keyboards (SR-4,SR-424...) incorporate macro keys, macro Numbers 1-64 are used to communicate with CServer as follows.

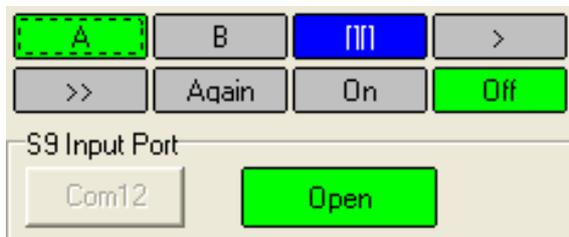
Macro Number	Macro Function	Shift Function
1	Star: Add/Remove Star	Enable/Disable * locate
2	Prev Goto/Select Previous Cue	
3	Next: Goto/Select Next Cue	
4	Locate: Goto Current cue	
5	Follow: Enable/Disable CueList code follow	
6	Details: Show/Hide full display	
7	CueList: Show/Hide Cue List	
8	MinMax: Minimise/Maximise Display	
9		

## Controlling CBServer from a UR-422

The UR422 is connected to the CBServer Input port

### S9 I/P – UR422 CBSrvr Macro A - H

CBServer accepts Sony protocol commands via the Serial A on the USB-422, these commands will be passed to the Master machine. When used with the UR-422 then up to 8 keys on the UR422 may be defined as macrokeys (CBSrvr A .. CBSrvr H). These may then be assigned within the CBServer software using the S9 I/P window. The 8 keys provided are used to define the 8 macro functions (CBSrvr A .. CBSrvr H).



## TrackMap: Track Arming Control and indication

This panel follows the track arming keys in the system. This panel displays the total number of tracks available and the current selected bank (Used when machine has more tracks than the controller has track arm keys.).

CB Electronics provides four types of track arming keyboard track assignment as follows:

- **System:** Each individual record key can be set to a different machine and track, used when access to multiple machines is required. The system track map may be loaded and saved to disk.
- **Follow Machine:** The Record keys follow the current selected machine.
- **Follow Record Enabled Machine:** The record keys follow the last selected record enabled machine
- **Macro:** Use macro selection buttons on



keyboard or on the Master Display software to select the machine or system arming display and control. The Track arm display is combined with a machine select panel. The following information is displayed:

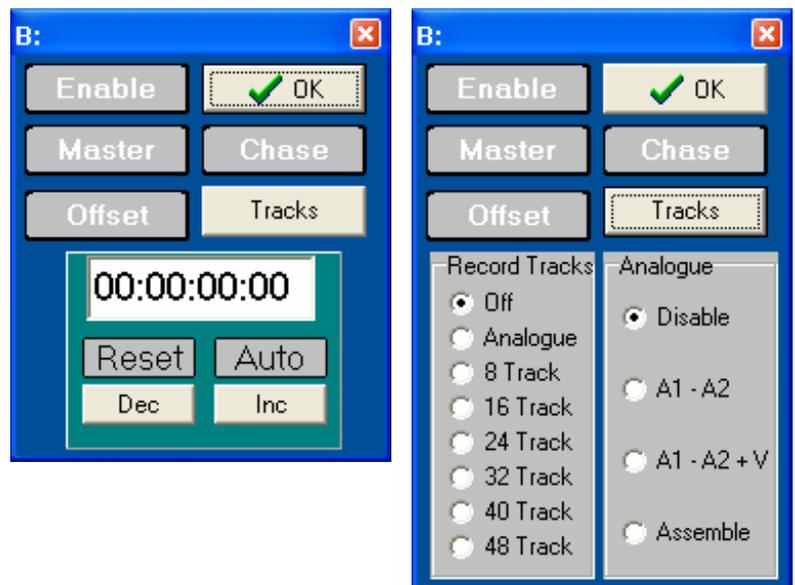
- The currently displayed machine or System Track Arming
- A machine selection panel
- The available record tracks.
- Current selected bank

Note: This illustration shows a warning message. The Warning message is removed by any command or by clicking on the warning message.

By right clicking on the individual machine buttons a machine setup menu is displayed that allows you to enable/disable record, set as master, set offset an access machine specific record parameters.

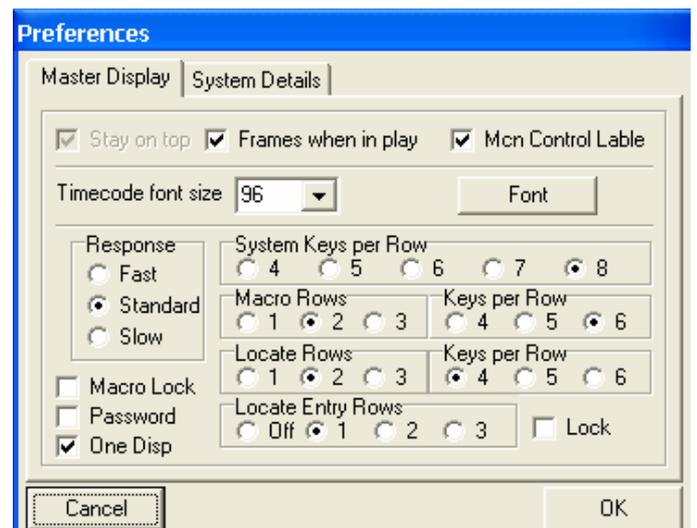
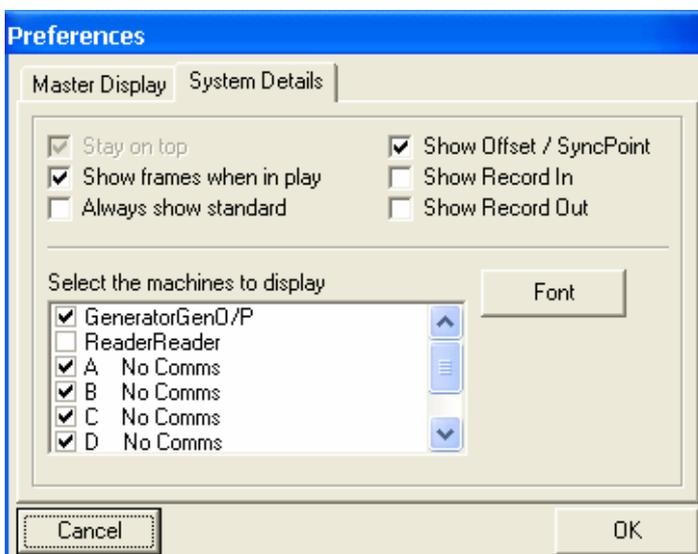
The Offset and Tracks keys open the appropriate menu.

Auto Offset will calculate the offset at the current relative positions of master and slave.



## Preferences

The preferences display is used to set user preferences for the Master Display and the System Details. These preferences are saved and recalled with the Desktop settings. The two pages on the preference menu



## Defining Different display configurations using the Desktop Settings

Working with different applications or different users requires multiple set-ups or desktops. By selecting the required screen position, open panels, and size and then saving each desktop under a different name the users may then select the appropriate desktop from the desktop list or by key. Desktop settings can be password protected so that they can be updated by the user.



## System Details

Lock	Port	Name	Tally	Position	Offset	Track Arming	Rec
<input checked="" type="checkbox"/>		GenO/P	<input type="checkbox"/>	00:25:52.	00:00:00:00		
<input checked="" type="checkbox"/>	B	DA-88	<input type="checkbox"/>	00:35:52.	00:10:00:00	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	C	MX2424	<input type="checkbox"/>	01:21:19.07	01:00:00:00	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	D	MC-1	<input type="checkbox"/>	02:25:52.	02:00:00:00	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>

The System Details may be enabled and disabled as required via the Master Display View menu. Once enabled clicking on the master display will show the view menu. As with all CB systems machine recognition, automatic set-up and record track arming come as standard.

The above display shows the Generator as master in play with the DA-88 and MC-1 as slaves. The DA-88 and MC-1 are both armed and recording. The MX2424 is a free machine in stop.

## System Details Menu

The System Details menu is revealed as you move the cursor over the top of the System Details display. The following menus are provided:-

### Options

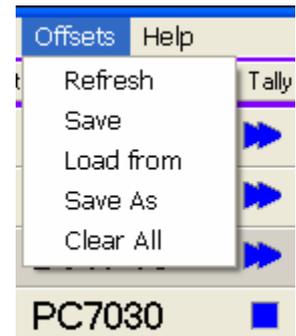
- **Preferences:** Master Display, System Details.
- **Desktop Settings:** Multiple user/job set-ups.
- **System Setup:** SR/MR/RM Setup.



## Offset

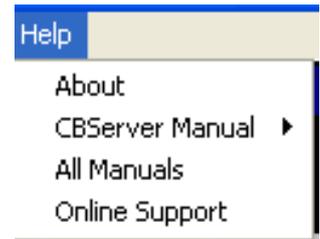
- **Refresh:** Load Offsets from default offset file
- **Save:** Save offsets to current file.
- **Load From:** Load offsets from user selected file
- **Save As:** Save offsets to user specified file.
- **Clear All:** Reset All offsets to zero and disable chase.

Note: Every time the Offsets are changed the default offset file is updated



## Help

- **About:** Show Registration screen
- **CBServer Manual:** Open this manual in English or French
- **All Manuals:** Show all manuals (RM-6, SR-User, SR-Tech)
- **Online Help:** VNC Link with CB Support

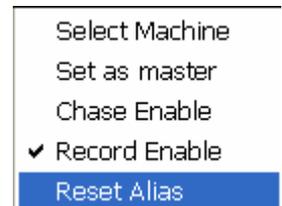


In addition to its display capabilities, you can currently perform the following actions:

- Set Offsets
- Set Sync points (System automatically recalculates the new offsets)
- Record enable
- Chase enable
- Select the system master
- Set Record In and Out Points
- Record Track arming.

## Machine selection

Left clicking on a machine name or machine position will select that machine, right clicking will bring up the menu as shown. This allows you to select any machine as a master, chase enable or record enable



## Offset Display

The offset display may be switched between, Offset, Sync Point, or Difference.

- **Offset** allows direct entry or increment/decrement of offset
- **Sync Point** allows offset calculation by specifying a sync points for each machine in turn.
- **Difference** allows monitoring of system performance.

## Individual Track Arming Displays

Click on the track arming area of the full system display to open a track arm window for the selected machine. Note that the machine ID determines the number of tracks displayed. Individual machine record enable and record On/Off are also available on the track arm panels.



The track-arming window includes Record Enable, track arming and record on/off as 'Illuminated Switches'.

Click on the track arming Switches to



enable/disable individual tracks.

Click ON or OFF to control record on individual machines.

Display up to 48 Digital tracks plus analogue audio and video.

## System Set-up

Individual user/project set-ups can be generated, saved and loaded at any time.

## Machine Set-up

Individual machine settings may be saved along with an 'Alias' name that may be used in place of the machine name. For instance Radar-1 reports that it is a BVU-950; set up the record and locate parameters for the Radar, then save the file as Radar-1. This file may be then loaded at any time.

## Macro Set-up

Individual/project keyboard macro layouts may be saved and loaded at any time.

## CB Server software

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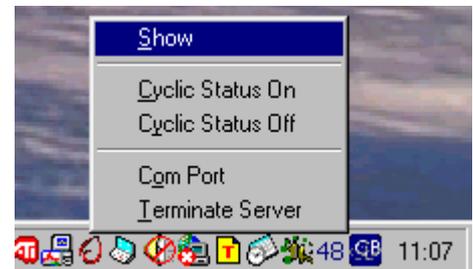
At the heart of the system is the CB Server.

The CB Server is a new software product from CB Electronics that may be used with an RM-6 or any SR/MR system with suitable software. The server is designed to allow multiple windows applications to access and control machines in the studio via a single port on a Windows PC.

Connection is via the RS-232 port (Com x) using a self-powered inline RS-232/422 converter. This will be replaced by a new USB to RS422 converter currently in development.

The server has been designed to work with 3<sup>rd</sup>-party software, providing advanced machine control capabilities through a simple DLL interface. It offers vastly reduced development time, as there is no need to cope with the intricacies of specific machines. An OEM development package is available with full information, examples and source code.

Although the server is powerful, it is also very discrete. During normal operation, the only visible evidence that the server is operational is a CB icon in the system tray. Right-Click the icon for the context menu or Left-click to show/hide the server dialogue directly.



You can view the current status of the server, change the COM port, and view the client applications currently connected to the server.

In normal operation the server is an icon in the start bar or tray. Clicking on this will display the server. The Server has three user screens

**Status:** the main setup and status screen

The **Status** indicates the current status either

- 1) **No data received from device**, No connection between CB Server and serial port, check Enable/Disable and com port number.
- 2) **No cyclic data**, check that the CB Server is assigned to the correct output port, use the change key if not. The serial port is connected to port F/Keyboard on the RM-6 and that the cable is made correctly.
- 3) **Controller has no video syncs**, check the video sync connection to the RM-6.
- 4) **OK**, Serial communications and Video Syncs are correct.



**Protocol:** the CB Server may be setup for Xmc multi-machine protocol or standard Sony P2 Protocol.

**Enable Coms:** Enable and disable serial port.

**Monitor:** Enable/Disable Monitor Display

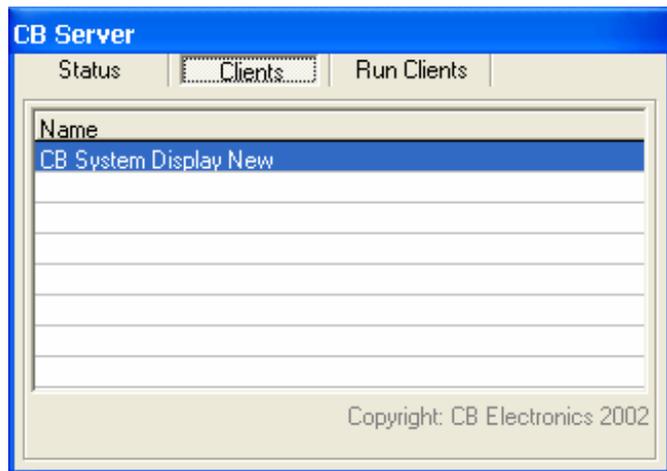
**About:** Show Registration screen

**Terminate:** Terminate CB Server and Client programmes

**Hide:** Hide the CB Server screen, the Icon in the 'Tray' may be clicked to display the CB Server.

**Clients:**

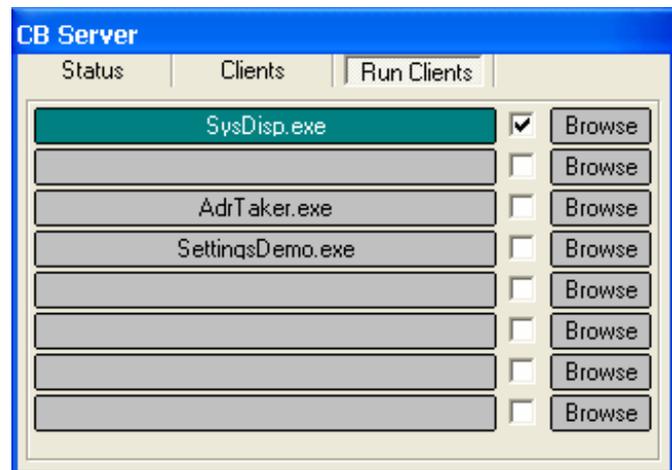
This screen indicates which clients programs are connected to the server



**Run Clients:**

This screen allows you to browse and select client programs, run client programs and select which client programs to run automatically with the server. When you exit the server program it will automatically exit from any client programs.

The Run Clients screen shown indicates that the SysDisp.exe is active and will be run at start-up.



AdrTaker and SettingsDemo are two other programs that may be run by clicking on their names.