

**Version:
17.x**

ThinAnywhere Client User's Guide



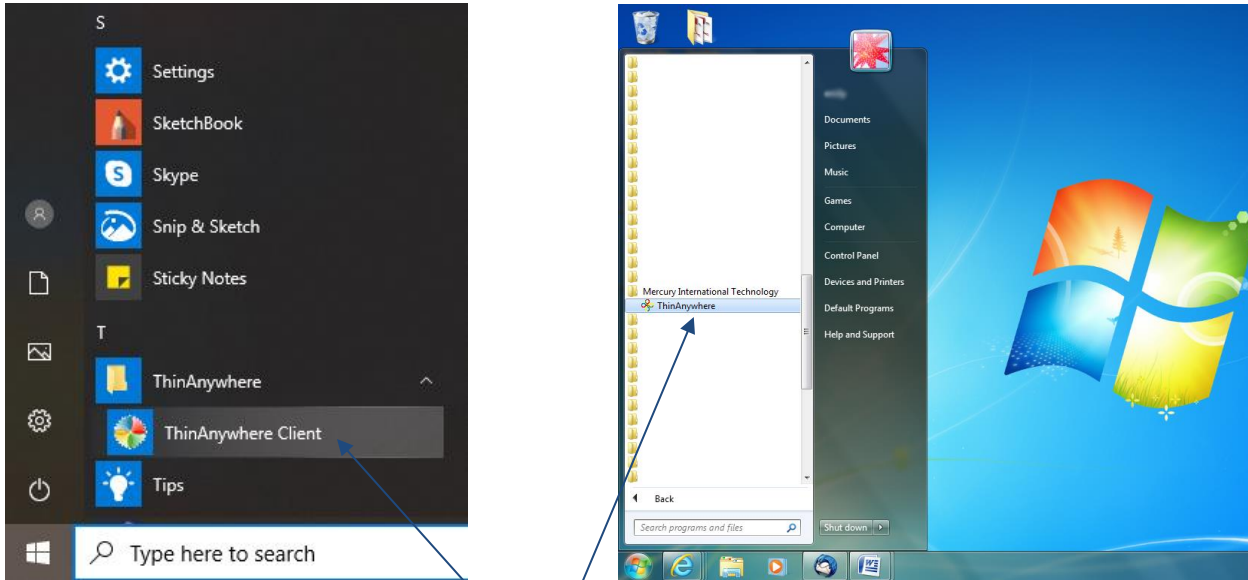
ThinAnywhere, Inc.

❖ Table of Contents

❖ How do I log into a ThinAnywhere Enabled Server?.....	3
Initiate ThinAnywhere from the Start menu.....	3
Logging Into A Server.....	4
Remote I.P.....	5
Color Depth and Visual Class.....	6
Using the Advanced Button.....	7
Using XDMCP.....	7
From Address.....	7
XDMCP (indirect option).....	8
XDMCP (broadcast option).....	8
Error Conditions.....	8
RDP (Remote Desktop Protocol) Login.....	9
Protocol Settings Login.....	10
iIP Protocol.....	10
SSL Protocol.....	10
Status During the Login Process.....	11
Connecting To Disconnected Sessions.....	12
You Are Now Connected To A ThinAnywhere Server.....	13
The .iip File.....	13
Saving a .iip File.....	13
Inside The .iip File.....	14
The taw.ini File.....	14
Inside The taw.ini File.....	15
ThinAnywhere Help Menu.....	17
Changing Compression Methods in a GL+: 24 bit True Color Session.....	17
Session Statistics.....	18
Exiting or Disconnecting from a ThinAnywhere Session.....	19
❖ How To Collaborate.....	20
Originator Logs In.....	20
Collaborator Logs In.....	21
Originator Confirms Collaboration.....	22
❖ Web Based Login.....	23
Login Page.....	23
❖ Changing Compression Modes.....	24

❖ How do I log into a ThinAnywhere Enabled Server?

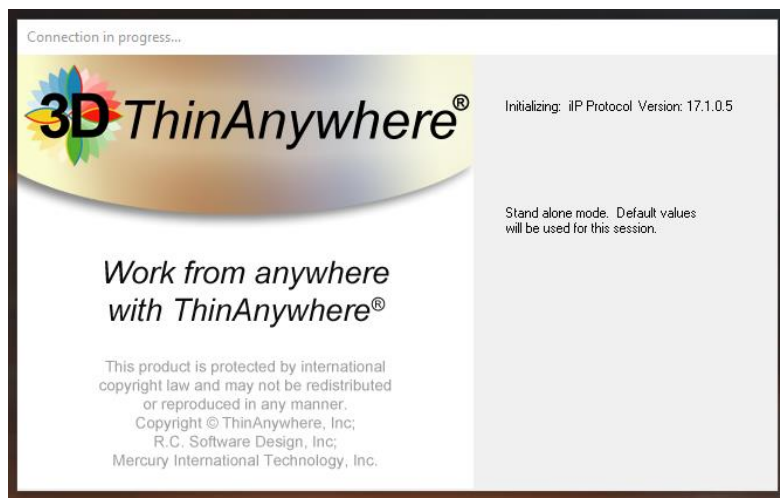
Initiate ThinAnywhere in Stand-Alone mode from the Start menu.



Locate the ThinAnywhere folder.
Click on “ThinAnywhere Client” menu item.

For older installations:

Follow the links to the Mercury International Technology folder
and then click on the ThinAnywhere menu item.



Logging Into A Server

The screenshot shows a 'Session Login' dialog box with the following fields and options:

- Login Section:**
 - User name:
 - Password:
 - Remote I.P.:
 - Host name:
 - Port #:
 - Session I.D.:
 - Server Code:
 - Bandwidth:
- Display Section:**
 - Width: Height:
 - GL+:
 - Use Full-Screen Mode
 - Use Seamless Windowing Mode
 - Monitors:
- Buttons:**

Callout boxes provide the following instructions:

- Type in your user name.
- Type in your password.
- For Client HELP, click on the "?" and then click on the word ThinAnywhere below and the help interface will appear.
- Type in the IP address of the server you want to connect to.
- Port 27500 is the default value. If you encounter problems logging into a server contact your administrator to verify what port ThinAnywhere is running on.
- Server Code is an optional parameter that acts as another password to log into the server and also changes the encryption key.
- Select from defaults or type in the width and height of the screen size that you want.
- Click the OK button to login to the server.
- Click the Advanced button for advanced login options such as: Xdmcp, RDP and iIP or SSL (Secure Socket Layer) Protocols.
- The host name appears here if it is in the **taw.ini** file.
- To collaborate with a user already logged into a server with ThinAnywhere, ask the user what their session ID is and type it into this box. Otherwise leave it as 0 if you are not trying to collaborate.
- Select the bandwidth for the type of connection you are using. Also see "Changing Compression Types".
- Click the Cancel button to cancel the session login.
- Select the Color Depth and visual class that you want the display to be set to.

****Please refer to the web based login section for details on logging in through a web browser.****

Remote I.P.

Remote I.P. address or system name

Session Login - Version: x.x.x.x

ThinAnywhere

Login

User name: Password:

Remote I.P.: Host name:

Port #: Session I.D.:

Server Code: Bandwidth:

Display

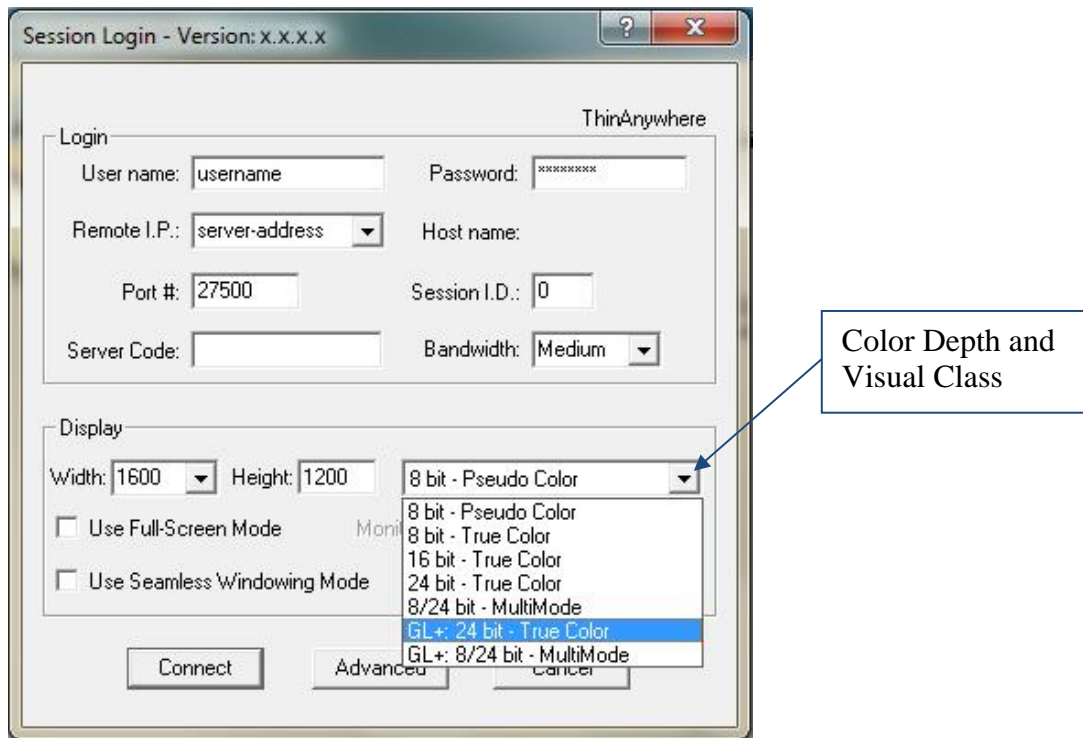
Width: Height: GL+:

Use Full-Screen Mode Monitors:

Use Seamless Windowing Mode

The **Remote I.P.** field of the Session Login screen displays the default servers that are in the `taw.ini` file. You may also type in an I.P. address. To edit the `taw.ini` file go to “C:\My Documents\My Connections” and then edit the “**taw.ini**” file.

Color Depth and Visual Class



Color Depth is used to represent the number of colors available. For instance, with 8 bit there are 256 colors available. (See visual classes below.)

Visual Class is the mode of the Xserver session. The currently available color depth and visual class combinations are listed and explained below.

- **GL+: 24 bit – True Color:** (*server add-on option*) Identical to "24 bit True Color" except with optional acceleration for OpenGL graphics. For an explanation of how to change compression methods, please see "Change Compression Methods in a GL +: 24 bit – True Color Session".
- **24 bit – True Color:** Uses 24 bits for color information for a total of 1.7 million simultaneous colors. Commonly referred to as "True Color".

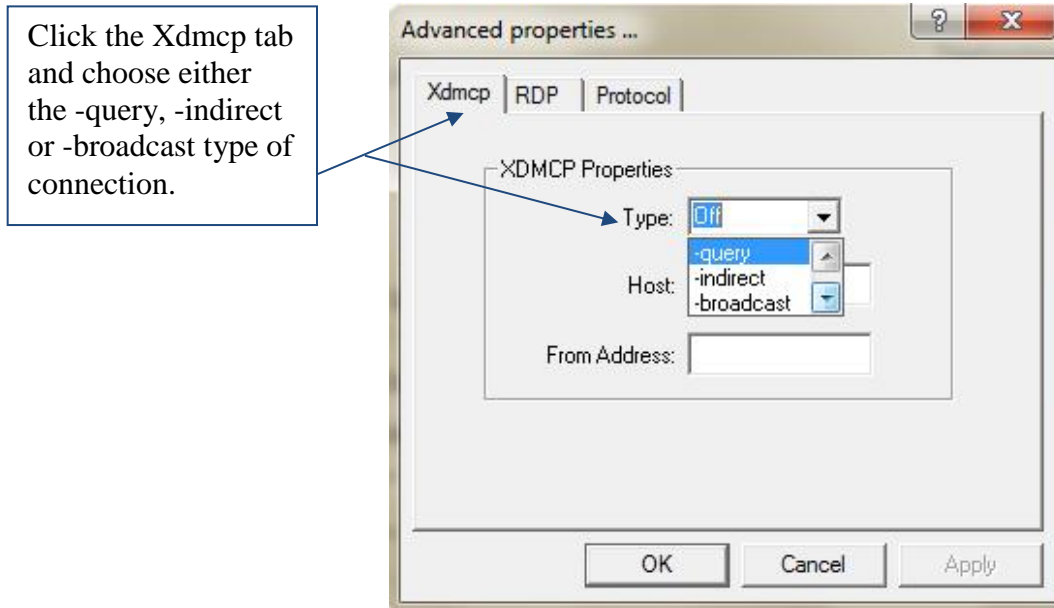
Legacy support modes:

- **8 bit – Pseudo Color:** Uses a color table and 8 bits for color information for a total of 256 simultaneous colors.
- **8 bit – True Color:** Uses 8 bits for color information for a total of 256 simultaneous colors and does not use a color table.
- **16 bit – True Color:** Uses 16 bits for color information for a total of 65536 simultaneous colors. Commonly referred to as "High Color".
- **8/24 bit – MultiMode:** This is a dual-mode visual class in which it is capable of displaying 8 bit Pseudo Color applications as well as 24 bit True Color applications.
- **GL+: 24 bit – MultiMode:** (*server add-on option*) Identical to "8/24 bit MultiMode" except with optional acceleration for OpenGL graphics.

Using the Advanced Button

After clicking the “Advanced” button on the ThinAnywhere client, the “Advanced properties” window will appear. The user can then select from one of three different login options; Xdmcp, RDP (Remote Desktop Protocol) for Windows connections and Protocol.

Xdmcp Login



Using XDMCP

XDMCP *X Display Manager, Control Protocol* is a convenient method for connecting to other local UNIX systems via Xdm on the LAN. It provides a graphical login mechanism similar to logging into the console. To use XDMCP, start the ThinAnywhere client and fill out the Session Login screen with the same parameters as you would to connect to a ThinAnywhere server. Remember that *all* connections, even to local UNIX servers, still go through the ThinAnywhere server. Click on "Advanced" and select the XDMCP tab. Click on the “Type” pull-down menu, which selects either *query*, which gives a direct login on the local UNIX system or *indirect/broadcast* which will display a "chooser" program *from* the local UNIX system. Select either “query”, “indirect” or “broadcast”. Type in the "Host" box the I.P. address or host name of the local UNIX system to connect to.

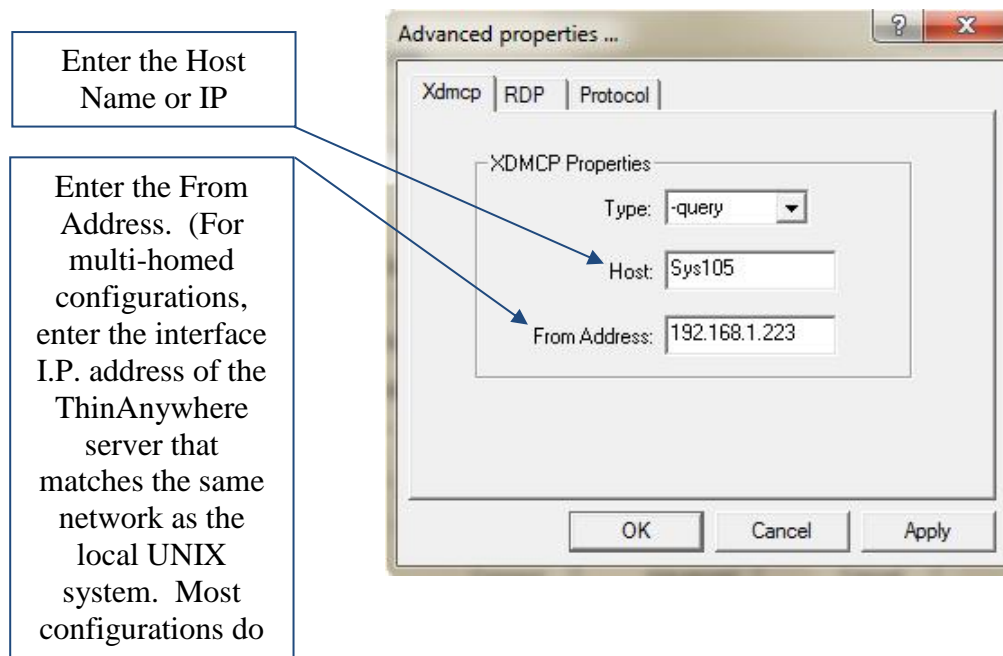
From Address

The "From" address should be the I.P. address of the local *interface* of the ThinAnywhere system. If the ThinAnywhere system is *not* being used in a *multi-homed* configuration, the "From" address will not be needed. If the ThinAnywhere system is configured with multiple interfaces, this feature will allow ThinAnywhere to connect to UNIX systems that span

multiple networks. You may need to ask your system administrator for this parameter depending upon the configuration. Click the "Apply" and "Ok" buttons and then click "Connect". When the connection is made, you will be greeted with either a direct login on the local UNIX system or a chooser program generated from the local UNIX system.

XDMCP (query option)

Starting XDMCP with a query option will send Query packets to the specified host. This will result in a login to the specified host. Type in a host name or I.P address of a UNIX system to connect to. For multi-homed configurations, enter the interface I.P. address of the ThinAnywhere server that matches the same network as the local UNIX system. Most configurations do not require this parameter.



XDMCP (indirect option)

Starting XDMCP with the indirect option will send Indirect Query packets to the specified host. This will result in a "chooser" program being displayed from the specified host.

XDMCP (broadcast option)

Similar to the "indirect" option, however, a host IP address does not need to be entered.

Error Conditions:

If after the connection is made and a login does not appear, probable causes are:

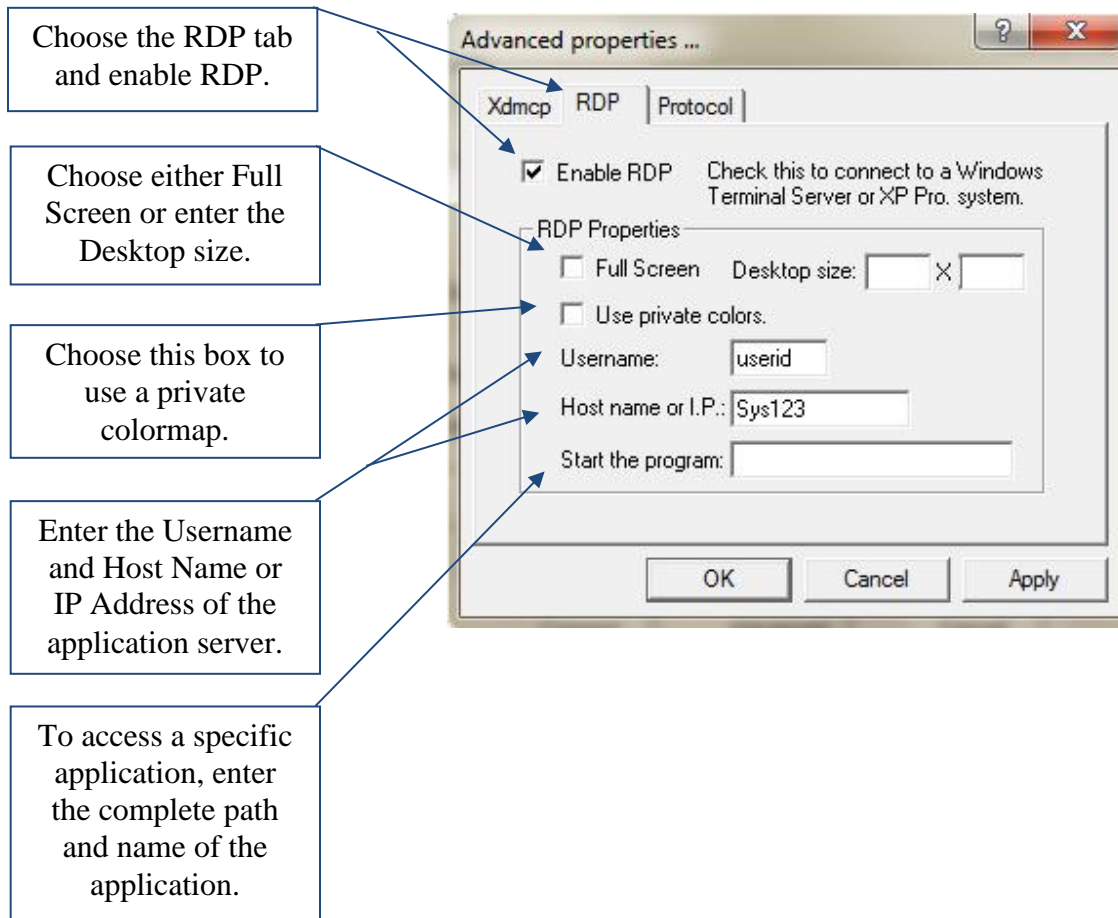
1. The "Host" address is invalid.
2. The "From" address is invalid.
3. The local UNIX system has XDMCP turned off or is not configured. Most SUN and SGI systems are turned on by default and need little if any configuration. Linux systems, however, often require modifications to the "gdm.conf" file.
4. A firewall is blocking XDMCP requests. (port 177)
5. The system is not on the same network or there is no route between these systems and the ThinAnywhere server.

RDP (Remote Desktop Protocol) Login

Connecting to a Microsoft Terminal Server or XP Pro. System.

Connectivity to a Microsoft Windows Terminal Server and or XP Pro. system is now built into the software, via RDP, configurable through the "Advanced" button on the client. Follow the steps below to connect to a Terminal Server or XP Pro. system.

1. Fill out the Session Login screen in the normal manner.
2. Click on the "Advanced" button and select the "RDP" tab.
3. Select the "Enable RDP" box.
4. Select either "Full Screen" or specify the width and height of the window.
5. Enter the user name and host I.P. of the Windows system you are connecting to.
6. To start a specific program on the Windows system, enter the complete path and program name using a "/" forward slash in the path. When you close the program the ThinAnywhere connection will exit.



** *Remote Desktop Protocol* is the protocol used by a Microsoft Windows system between a client and a server. RDP is available only on Windows Servers or Professional and Enterprise editions. **

Protocol Settings Login

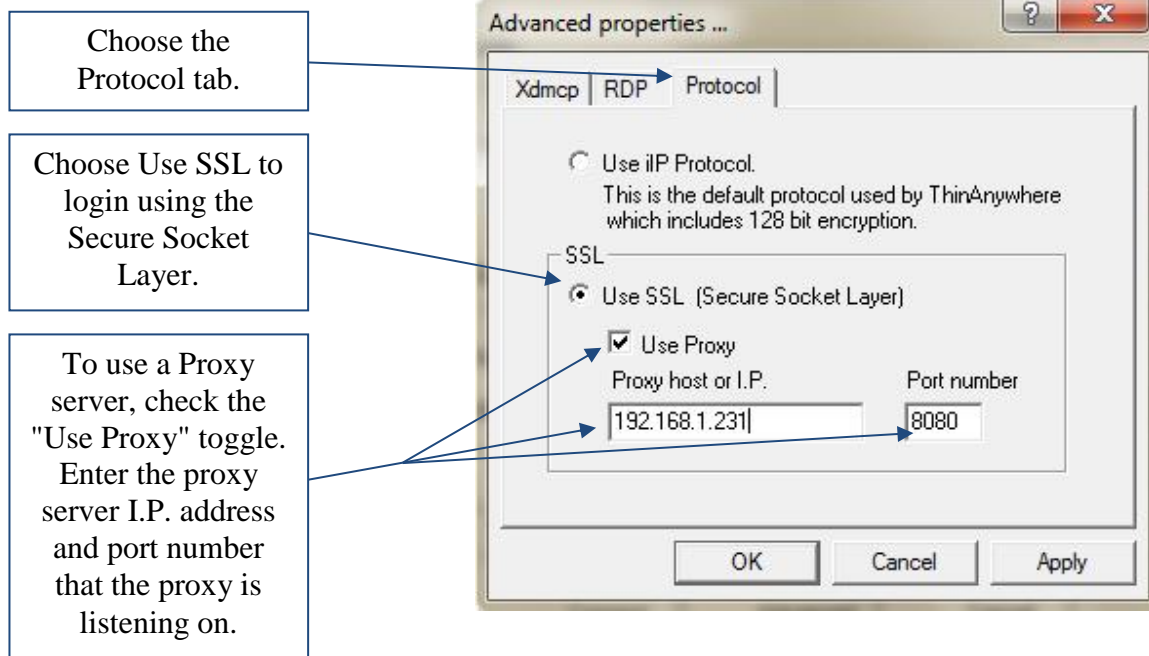
iIP Protocol

The proprietary protocol that ThinAnywhere uses to communicate between the client and the server which includes 128 bit AES encryption.

SSL Protocol

A protocol, which defines the Secure Socket Layer implementation for secure network communications by using public and private key technologies.

To use a Proxy server to connect to a ThinAnywhere server, select the "Protocol" tab. Select "SSL". Check the "Use Proxy" toggle. Enter the proxy server I.P. address and port number that the proxy is listening on. Press "Ok". The ThinAnywhere client will now use the specified proxy server and automatically switch to port 443 to contact a ThinAnywhere server.

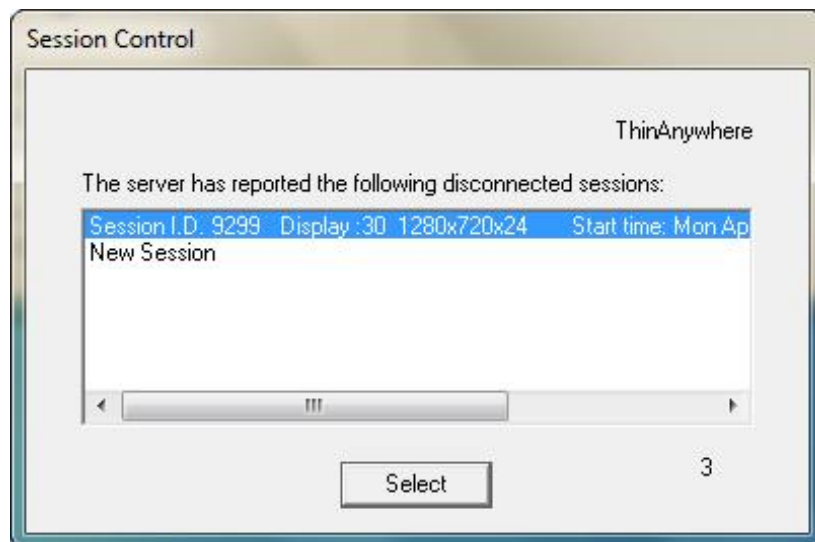


Status During the Login Process

The screen will show the stages of the login process. First the protocol is initialized, the client then contacts the server, the server logs you on, and then you are authenticated.



Connecting To Disconnected Sessions



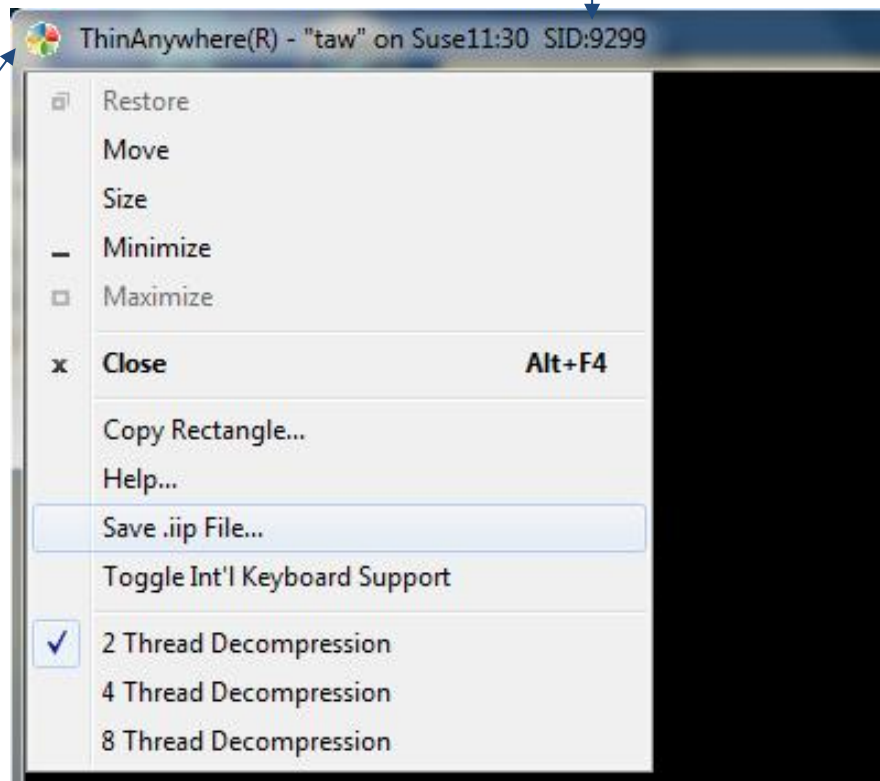
If you have any disconnected sessions on the server that you are logging into then a window with a list of those sessions will appear. You can select one of the previous sessions and reconnect to it or you can select “New Session” to start a new session.

You Are Now Connected To A ThinAnywhere Server

Once connected, the ThinAnywhere window will open. Depending on how the administrator has setup your account you may see a full desktop, just a published application, or even just a simple motif windows manager. Your login can be personalized to the settings that you desire.

Your username, the system name, Display number and SID number (Session ID) is always shown on the top bar of the ThinAnywhere window.

You can save the **.iip** file for any session by clicking on the ThinAnywhere logo and choosing the "Save **.iip** file" option from the pull down menu.



The .iip File

The **.iip** file type is a registered extension of ThinAnywhere. When this file is opened, Windows will start the ThinAnywhere executable and pass this file as an argument. The file contains parameters such as a username and remote IP to successfully connect to a ThinAnywhere server.

Saving a .iip File

To save a **.iip** file, first establish a connection to a ThinAnywhere server. Click on the system menu of the ThinAnywhere display window and select "Save **.iip** file". Alternatively, you may right click on the ThinAnywhere icon in the system tray and select "Save **.iip** file". The default path for the saved file is \My Documents\My Connections.

Inside The .iip File

The **.iip** file contains parameters such as a username and remote IP to successfully connect to a ThinAnywhere server.

VersionRequired	<i>"Reserved value"</i>
DisplayClientType	<i>"Reserved value"</i>
DisplayServerAddress	< Remote ThinAnywhere I.P. address or host name >
DisplayServerPort	< Listen port number of remote ThinAnywhere server >
DisplayProtocol	<i>"Reserved value"</i>
DisplayClientAutoStart	<i>"Reserved value"</i>
DisplayServerName	< Host name for display purposes only >
DisplayWidth	< Width of ThinAnywhere display. -1 for full screen >
DisplayHeight	< Height of ThinAnywhere display. -1 for full screen >
DisplayDepth	< Visual depth. 8, 16, 24 and 124 for 8/24 MultiMode >
DisplayVisual	< 3 = Pseudo color AND depth MUST be 8, 4 = True Color >
UseGLPlus	< (only with optional server add-on) 0 = off, 1 = on >
ServerCode	< Encrypted server code of remote ThinAnywhere server. Do not modify >
ProjectID	< ASCII string for user defined project >
DeviceClientAutoStart	<i>"Reserved value"</i>
DeviceUserName	< User login name on remote ThinAnywhere server >
DeviceGroupName	<i>"Reserved value"</i>
DeviceSupport	<i>"Reserved value"</i>
DeviceServerPort	<i>"Reserved value"</i>
DeviceServerAddress	<i>"Reserved value"</i>
Authentication1	<i>"Reserved value"</i>
Authentication2	<i>"Reserved value"</i>
Authentication3	<i>"Reserved value"</i>
Authentication4	<i>"Reserved value"</i>
SessionID	< 0 = New session, xxxx = Session ID of originator to collaborate with >
Password	< Encrypted password. This parameter may be deleted to force a password entry >
EnvVars	< Environment variables passed to server. MYVAR=myvalue;MYVAR2=myval2 >
Xdmcp	< XDMCPTYPE=-indirect or -query. XDMCPHost=I.P. XDMCPAddr=I.P.>

The law.ini File

The law.ini file is the user's personal initialization file for ThinAnywhere. This file stores default parameters when a **.iip** file is not available. When the client first starts, it looks in the users “\My Documents\My Connections” directory for a law.ini file. If the directory is not found, the program will make this directory and copy the global law.ini in “\Program Files (x86)\Mercury International Technology\ThinAnywhere” to the new one. If the client is started from a **.iip** file, parameters will be taken from the **.iip** file.

Inside The law.ini File

```
[User]
Username law
```

Default user name for stand-alone mode

```
[Hosts]
63.167.55.101 Sentry101 supersentry
63.167.55.102 Sentry102 supersentry
```

Default list of systems for stand-alone mode:

IP (space) Name

-- or --

IP (space) Name (space) Code

```
[Viewer]
DisplayPort          27500
MaxScreenWidth       1920
MaxScreenHeight     1080
ColorDepth           24
VisualClass          4
UseGLPlus            1
BackingStore         0
AddOptions
DefaultDisplayProtocol IIP
ConnectDialog        0
CloseDialog          1
Bandwidth            2
SessionLoginDialog  0
ProjectIDDialog      0
LogFile              log1.txt
PrintDebug           1
```

Default screen resolution and display type parameters for stand-alone mode.

```
[END]
```

To modify the file with your personal preferences, open the file with wordpad or notepad. To comment a line in the law.ini file, use the "#" character. Blank lines are ignored and keywords between the braces are reserved. Below is an example law.ini file.

Parameters which may be changed are:

Username

Insert your username after the keyword.

Hosts

Host I.P Host name Server code
192.x.x.x Sentry101 supersentry

The host name and server code are optional parameters.

DisplayPort

Insert the listen port number of the ThinAnywhere server.

MaxScreenWidth and Height

Insert the width and height of the desired display. For best results, use standard screen sizes (1024x768, 1280x1024). A -1 in this field gives a full screen display.

ColorDepth and VisualClass

ColorDepth	VisualClass	Result
8	3	8 bit Pseudo Color
8	4	8 bit True Color
16	4	16 bit True Color
24	4	24 bit True Color
124	4	8/24 bit MultiMode True Color

UseGLPlus

(For use ONLY with server add-on option) Default is "0" - GL+ mode off. If the server supports the optional accelerated OpenGL graphics, then a value of "1" will request "GL+" mode for 24 bit True Color and 8/24 bit MultiMode connections.

BackingStore

Insert a 1 for backing store support, otherwise a 0 turns it off.

Bandwidth

Settings for bandwidth are: 0=Low, 1=Medium and 2=High.

ThinAnywhere Help Menu

Once a ThinAnywhere session has been established, hold down the “shift” key and press the “F1” key to see the ThinAnywhere Help menu.

The diagram illustrates the ThinAnywhere Help Menu, a window titled "Collaboration (Originator) Help". The menu lists the following function keys and their actions:

- Session I.D. 2767
- Display :32
- Function Keys (Originator)
- Shift-F1 -- Help
- Shift-F2 -- Disable input from collaboration
- Shift-Ctrl-F2 -- Disable / Disconnect Collaboration
- Shift-F3 -- Enable input from collaboration sessions
- Shift-Ctrl-F3 -- Enable collaboration
- Shift-F4 -- Exit / Disconnect from server
- Shift-F5 -- Toggle remote mouse ctrl. (Local Mode)
- Shift-F9 -- Toggle cursor colors
- Shift-F12 -- Session Statistics
- Alt+Enter -- Toggle Full Screen

Callouts from the text boxes on the left point to these specific items in the help menu:

- Callout 1: "Your Session I.D. is used to collaborate with another user." points to "Session I.D. 2767".
- Callout 2: "Shift-F2 will disable the mouse movements and keyboard input from the collaborators." points to "Shift-F2 -- Disable input from collaboration".
- Callout 3: "Shift-Ctrl-F2 disconnects all current collaborators and will disable the collaboration feature of the current session. This will prevent future collaboration attempts. To re-enable the collaboration feature look at Shift-Ctrl-F3." points to "Shift-Ctrl-F2 -- Disable / Disconnect Collaboration".
- Callout 4: "Shift-F3 will re-enable the input of collaborator's keyboard and mouse movements after disabling it." points to "Shift-F3 -- Enable input from collaboration sessions".
- Callout 5: "Shift-Ctrl-F3 will re-enable the collaboration feature of the current session after disabling it." points to "Shift-Ctrl-F3 -- Enable collaboration".
- Callout 6: "Shift-F4 will prompt you if you want to exit or disconnect from the current session." points to "Shift-F4 -- Exit / Disconnect from server".
- Callout 7: "Shift-F5 will prevent the movement of the collaborators mouse from moving your mouse." points to "Shift-F5 -- Toggle remote mouse ctrl. (Local Mode)".
- Callout 8: "Shift-F12 will prompt you with the Session Statistics window." points to "Shift-F12 -- Session Statistics".

Changing Compression Methods in a GL+: 24 bit True Color Session

The session originator and collaborator can change compression types by using the shift+F7 and shift+F8 keys. Compression type of A and B will use the most bandwidth but will be under 25 mbit/second. Compression type C is the default and uses no more than 20 mbit/second. Compression type D is quite strong (and will have less image quality) and will use the least bandwidth. D1 will use around 3.5 mbit, D2 will use about 2.5 mbit and D3 will use about 1.5 mbit/second.

Session Statistics

Hold down the “shift” key and press the “F12” key view the Session Statistics window.

Shows the user name that you are logged in as.

Shows the IP address of the server you are connected to.

Displays Yes if you are a collaborator and No if you are an originator.

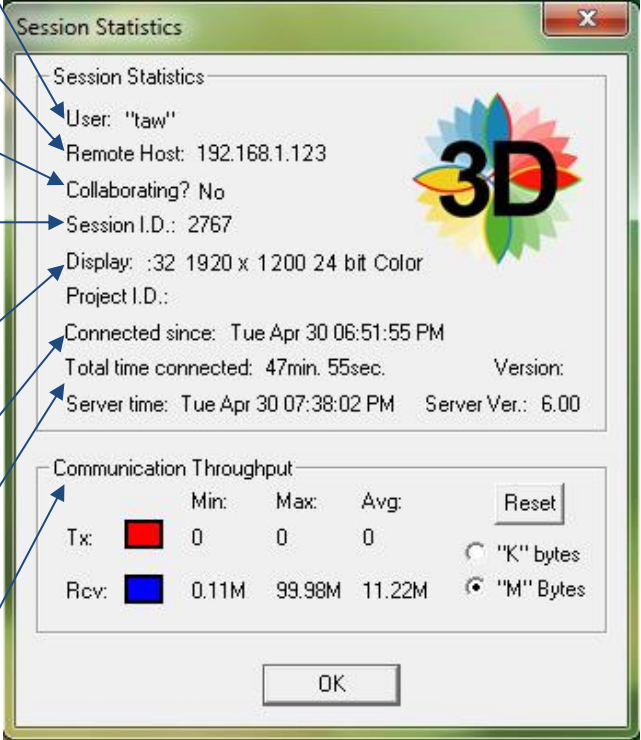
Displays your Session ID which is used for collaboration.

Shows the display settings such as size and color depth.

Displays the starting date and time of the current session.

Displays the total time the current session has been connected.

Shows the minimum, maximum, and average throughput of data for the current connection. Select the “K” or “M” options of the right hand side to see the values in kilobytes or Megabytes.



The screenshot shows a window titled "Session Statistics" with a 3D logo. The window contains the following information:

- Session Statistics
- User: "taw"
- Remote Host: 192.168.1.123
- Collaborating? No
- Session I.D.: 2767
- Display: :32 1920 x 1200 24 bit Color
- Project I.D.:
- Connected since: Tue Apr 30 06:51:55 PM
- Total time connected: 47min. 55sec.
- Version:
- Server time: Tue Apr 30 07:38:02 PM
- Server Ver.: 6.00

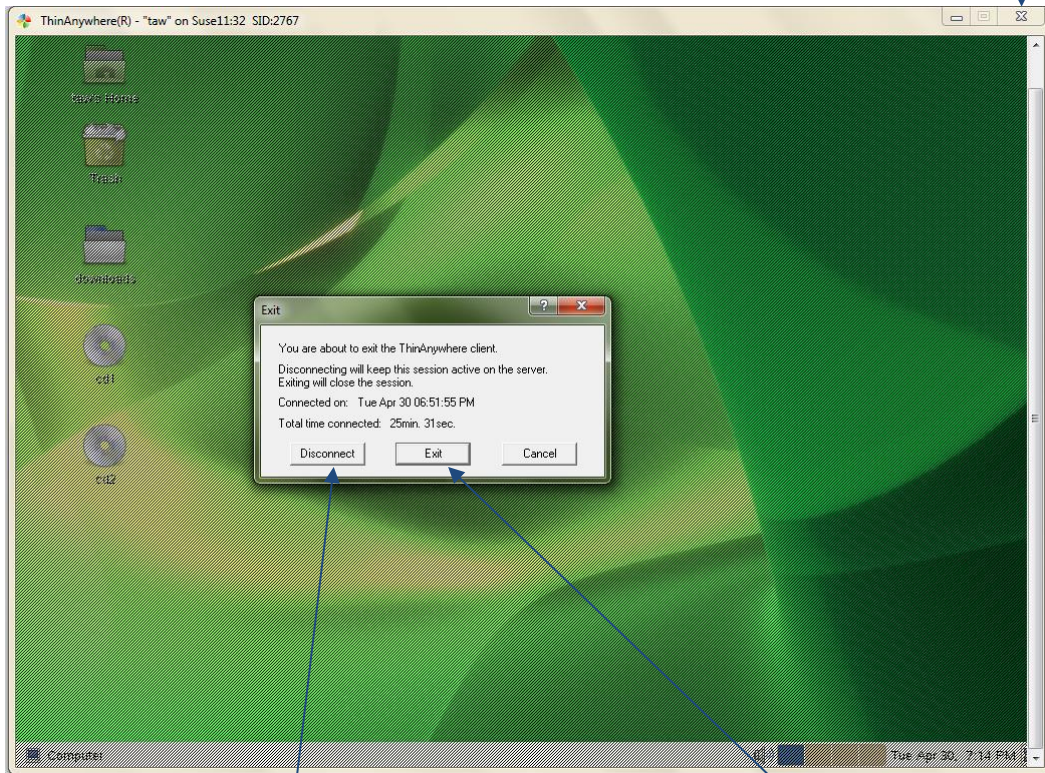
Communication Throughput:

	Min:	Max:	Avg:	
Tx:	0	0	0	<input type="radio"/> "K" bytes
Rcv:	0.11M	99.98M	11.22M	<input checked="" type="radio"/> "M" Bytes

Buttons: Reset, OK

Exiting or Disconnecting from a ThinAnywhere Session

Click on the “X” to exit/disconnect the session.

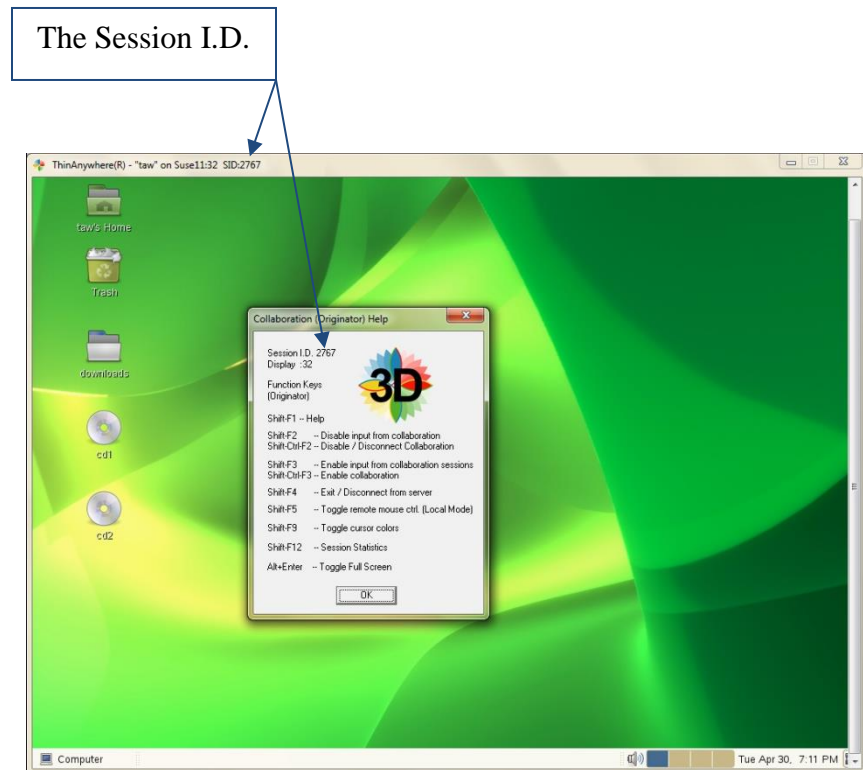


Disconnecting from a session will allow you to reconnect to that exact same session at a later time.

Exiting will completely exit the session and close all programs that are running. You will **NOT** be able to reconnect to the session at a later time.

❖ How To Collaborate

Originator Logs In



After the Originator logs in, he can see the Session ID number at the top of the ThinAnywhere window or hold down the “shift” key and press the “F1” key and the ThinAnywhere Help window will appear. At the top is the Session ID. Call the person with whom you wish to collaborate and tell him/her your session ID.

Collaborator Logs In

The screenshot shows a 'Session Login' dialog box with the following fields and values:

- User name: username
- Password: [masked]
- Remote I.P.: 192.168.1.55
- Host name: [empty]
- Port #: 27500
- Session I.D.: 2767
- Server Code: [masked]
- Bandwidth: Medium

The 'Display' section includes:

- Width: 1600
- Height: 1200
- GL+: 24 bit - True Color
- Use Full-Screen Mode
- Monitors: 1, 2, 3, 4
- Use Seamless Windowing Mode

Buttons at the bottom: Connect, Advanced, Cancel.

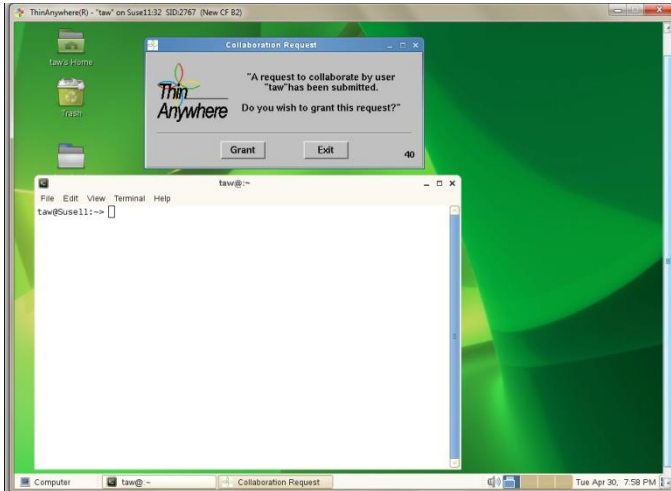
A callout box labeled 'Session I.D.' points to the Session I.D. field.

The Collaborator logs in as normal however instead of leaving Session ID as 0, he will enter the Session ID of the Originator's session.

**** Please refer to the web based login section for details on logging in through a web browser. ****

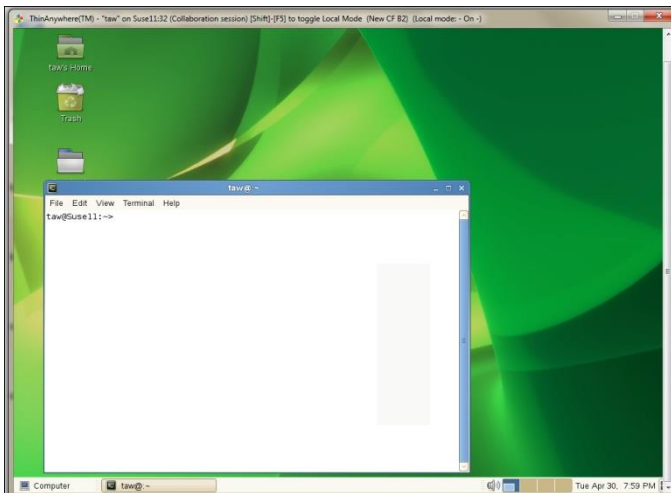
Originator Confirms Collaboration

Originator's Window



Once the Collaborator's client tries to login, the Originator is prompted to confirm his/her desire to collaborate. If they click No or leave the box for up to 60 seconds then the Collaborator is not allowed to connect.

Collaborator's Window



If the Originator accepts the request to collaborate then the Collaborator's client opens a window and connects to the same X session as the Originator's allowing both users to see and interact with the same screen/application.

❖ Web Based Login

Login Page

There are several login configurations used for the ThinAnywhere Web Based Login. Below is an example of one of the Login screens. If your web site is enabled for Web Based Login, please contact your ThinAnywhere Server Administrator to obtain more information on which type of Web Based Login you will be using.

Powered By ThinAnywhere

ThinAnywhere Log In

To log into a server, enter your user information and click the **Submit** button. Click **Reset** to clear the form.

User ID:

Password:

Server:

Size: X

Visual:

Session ID:

Copyright © 2001-2004 Mercury International Technology, Inc. All Rights Reserved.

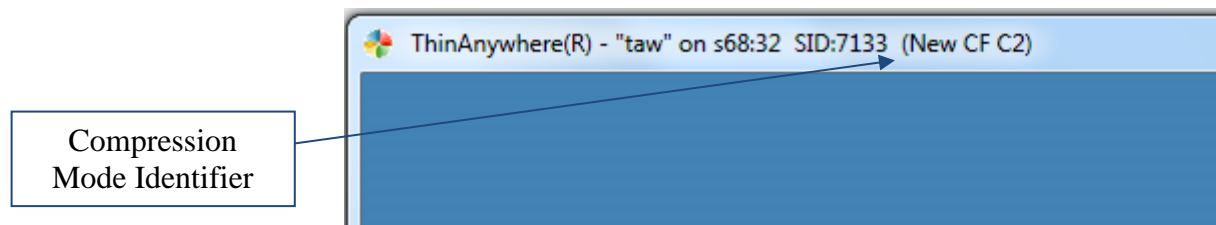
❖ Changing Compression Modes

Compression modes may be adjusted any time the client is connected to a session.

From the client, you can walk through various compression modes by pressing [Shift]-[F7] or [Shift]-[F8].

[Shift]-[F8] will take you to the next mode and [Shift]-[F7] will take you to the previous mode.

The modes are labelled A1 through D3 and will appear in the title bar of the ThinAnywhere client.



Note: If you are using full-screen mode or seamless mode, you can toggle to see the frame by pressing [Alt]-[Enter].

The default mode is C1. The various levels of "D" compression (D1, D2 or D3) will give increased performance. The higher the number, the lower the bandwidth used, but also the lower the quality.

To set the default server compression, you may edit the client configuration file, **taw.ini** (usually in my documents\my connections), and change the **CompFormat** keyword value in the **[Viewer]** section to point to something from the table below.

Table of Compression Modes

Compression Identifier (Shift F7 or F8)	CompFormat value in taw.ini file.	Compression Type
A1	0	Lossless "Tuned Color" method. Optimizes using internal color tables.
A2	1	Same as A1 with higher compression ratio. (same quality, less bandwidth but may take more CPU)
B1	2	Lossless full RGB method.

B2	3	Same as B1 with higher compression ratio. (same quality, less bandwidth but may take more CPU)
C1	4	Some Loss - Reduces number of colors slightly for improvement in performance and bandwidth.
C2	5	Same as C1 with higher compression ratio. (same quality, less bandwidth but may take more CPU)
D1	6	Some Loss - but high performance.
D2	7	Same as D1 with higher compression ratio. (less bandwidth, but lower quality... CPU usage similar)
D3	8	Same as D2 with higher compression ratio. (less bandwidth, but lower quality... CPU usage similar)
F1	9	Very high speed – some loss (requires more server/client CPU than D1)
F2	10	Same as F1 with higher compression ratio. (less bandwidth, but slightly lower quality)
G1	11	Low bandwidth – good frame rate – some loss (good performance for lower bandwidth connections)