



Color iControl (Color iQC, Color iMatch)
Installation of Terminal Server Version 4.x, 5.x

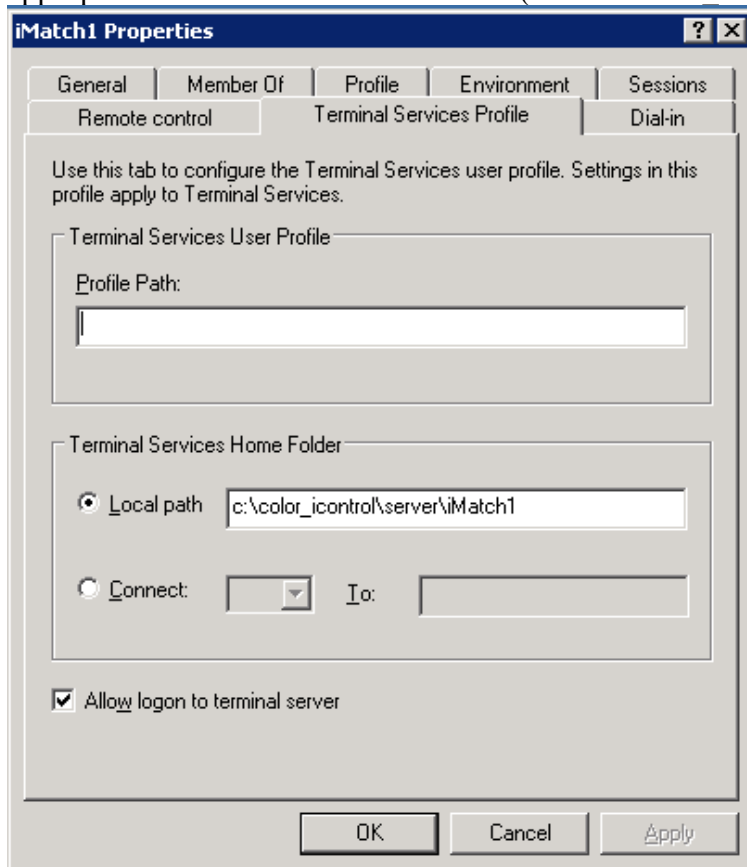
Color iControl (version 4.16 or later) may be installed on a Windows 2003 Terminal Server and if properly configured and licensed is enabled for multi-user operation using MicroSoft Terminal Services. **Windows Server 2003** is required (although the product may be run on Windows Server 2000, no serial port mapping exists so you cannot connect a spectrophotometer).

Installation of a Terminal Server version of Color iControl requires an Administrator account, knowledge of Registry settings and REGEDIT, knowledge of creation and management of user accounts and groups, and knowledge of software installation procedures on Terminal Servers.

The procedure for installation uses the same CD or self-extracting image – but differs slightly in the install procedure ...installation steps are:

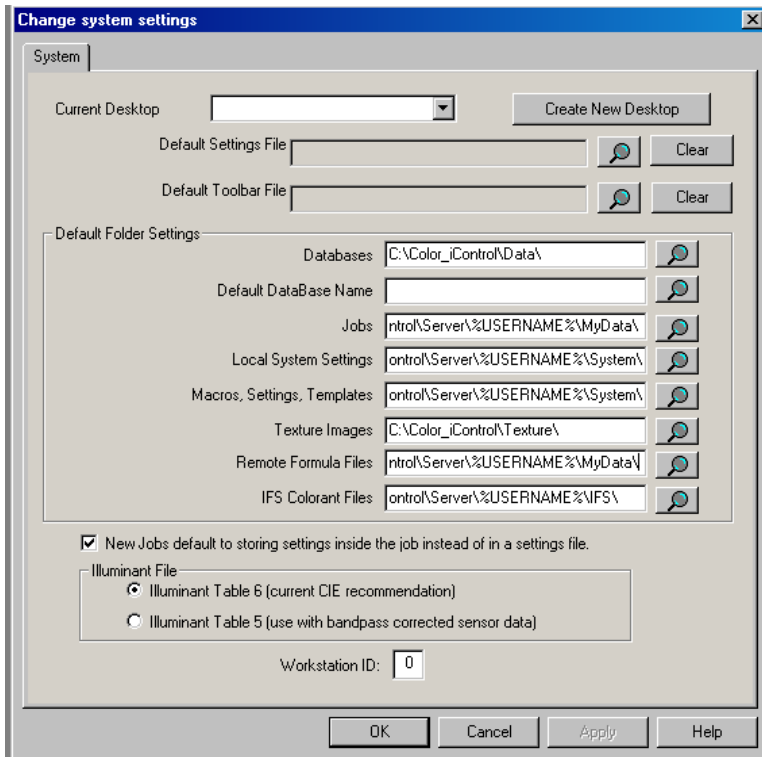
- 1) An administrator account must be used to install Color iControl. If you intend to also run Color iControl from the administrator account during initial installation (to perform the registration process), you should create a default_user account for Color_iControl and give it Administrator rights. Set the home folder for this account to `\Color_iControl\Server\default_user` . Perform all installation procedures using this account.
- 2) Install the software using the Control Panel “**Add/Remove programs**” icon (this is **required for all software** on a terminal server that is to be run by multiple users). This procedure places the server in “**Install mode**”, and launches an “After Installation” dialog box that instructs the administrator to click on FINISH after the software has been successfully installed (which returns the server to normal operation). The purpose of this procedure is to trap all changes made to the HKEY_CURRENT_USER key for the product being installed. These registry settings will automatically be inserted into any user’s registry hive whenever they start up the Color iControl software – *so they must be correctly set at this point*. If necessary, you may manually correct these entries later using an administrator account to modify the hive
HKEY_LOCAL_MACHINE\Software\Microsoft\WindowsNT\CurrentVersion\Terminal Server\Install\Software\GretagMacbeth\Color_iControl.
- 3) After installation is complete but **before** running the Color iControl software for the first time, the Administrator must run the batch file “`C:\Program Files\GretagMacbeth\Color_iControl\Terminal Server Configure.bat`”. This batch file sets a registry setting for terminal server operation, and creates additional folders and files required for multi-user operation.
- 4) The batch file creates a folder `C:\Color_iControl\Server\` and places a default folder beneath it called “**Default_user**”. The folder “**Default_user**” **and its contents** must be **copied** to create new user folders for **each** user account that is going to access Color_iControl through Terminal Services.

- 5) After running the batch file, and making any other changes necessary in the HKEY_CURRENT_USER\Software\GretagMacbeth\Color_iControl registry entries, click on FINISH in the “After Installation” dialog box described in 3) above.
- 6) Administrator must create User Accounts/passwords on the Windows Server (or use domain accounts) that are enabled for terminal server logon (including one for “Default_User”) and must also set those account environments up for any desired restrictions (such as local drive and printer mapping, automatic software startup, session limit, etc.). **In particular**, the Administrator must set the **Terminal Services Profile** (and **Local Profile**) - **Local Path** of each user account to the appropriate folder created for each user (ex: “C:\Color_iControl\Server\User1”).



- 7) Failure to perform this prior to running Color iControl will cause the program to fail on startup with the message “Cannot locate \MyData\System\Sensors.archive”. If this occurs, you must manually set the registry setting in the users HKEY_CURRENT_USER hive “Program Path” to “[...home folder]\system” (*see 13 below*).
- 8) Administrator should create a security group for all Color iControl users, making each of the above accounts members. In addition, Administrator should set access permission on the registry hive HKEY_LOCAL_MACHINE\Software\GretagMacbeth\ to allow full access for the Color iControl group. Administrator should give similar access to the folder C:\Program Files\GretagMacbeth, and to the C:\Color_iControl\ folder for all color iControl group members.

- 9) (*Optional Step*) If you intend to create a default policy setting for new users, log onto the default administrator account for Color iControl and run Color iControl (you may activate at this stage or continue to set system settings as required and activate later). System settings must be set for all users by using environment variable %USERNAME% where appropriate in the default path settings. For instance, the path setting for “Local system” should be set to “C:\Color_iControl\Server\%USERNAME%\System” (or whatever is appropriate). Transfer these settings from the NTUSER.dat profile to the default user profile, or place the appropriate registry settings into the hive
HKEY_LOCAL_MACHINE\Software\Microsoft\WindowsNT\CurrentVersion\Terminal Server\Install\Software\GretagMacbeth\Color_iControl\Preferences\Job Defaults\.
- 10) If step 8 is not performed, each users account will default on first startup to appropriate values for operation. The user may need to modify the default path settings as desired to get the desired behavior for that account. When each user runs, the “%USERNAME%” is replaced with the current account name (ex: “DyeLab”). Common files to be shared with all users may be placed in the C:\Color_iControl\Data folder, while files that are private to each user should be stored under the appropriate folder under each user folder (IFS, System, or Jobs).
- a. Files which are private to each session (such as sensors.archive, proxy.archive, etc.) cannot be accessed by multiple users and must be directed to a private folder specific to each user Such files are always stored in the “**local settings**” folder of Color iControl. The default is “\system\” under the user’s home path. Make sure you set each user’s local settings path in Color iControl appropriately so that only that user can access it.
 - b. Note that **IFS files** CANNOT be accessed by multiple users simultaneously – however you may place such files in a shared folder if desired. When IFS files are opened by Color_iControl running as a remote user and the path used does NOT contain “%USERNAME%”, a temporary copy of the IFS file is made for that session and stored locally in the users local IFS folder. Any changes made to this IFS file will NOT be saved back to the original master – to make such changes the default_user account must be employed or a local (non-remote) instance of Color iControl must be used to modify/maintain this file for all users. (*Note: With version 5.0 of Color iControl, IFS files are converted into IFS Collections which exist in the jobs, so sharing of IFS files is no longer an issue*).



Example above shows default path settings set for all remote account access to be based on USERNAME. This example would share a database but keep IFS files, settings, and job files separate for each user.

11) Administrator may want to create a default profile for the Color iControl group so all new accounts that log on will get these defaults automatically.

12) All other operations are the same with the following exceptions:

- a. USB spectrophotometer interface is not allowed, only serial interface (RS232) is supported by the Terminal Server access.
- b. Instruments which are NetProfiled externally may be used provided the correct profile is available on the server (in the standard location) and NetProfiler[®] is installed on the server. NetProfiler may run across the Terminal server interface to profile an instrument remotely, but that profile will be stored on the Terminal Server, not on the client computer – so users who run both terminal server and local versions of Color iControl may be using different profiles on externally profiled sensors.
- c. A **floating “network” license** is required for running Terminal server remotely, and is available for iQC Pro or iMatch Pro in increments of 5 users. The Network license is a concurrent use license. If a 5 user license is installed, then 5 users at a time may run Color iControl – the next user will receive a message indicating all licenses are in use, please try later. In the event of a program crash where the license has not been properly released by the software, the system will automatically reset the license usage after no longer than 21 minutes to recover the license.

- d. While it is possible to **configure** individual users to run as either iQC or iMatch, the type of Network license that can be purchased must be either iQC or iMatch – it is not possible to purchase a mixture of license types.
- 13) *If errors in path settings are encountered on user startup*, the repair may be done as follows: Run Color iControl, answer “yes” to dialog box, log onto color iControl but do not Open a job. Cancel the sensor install dialog, and then click on Settings button. Modify the default path settings by pointing each to the desired folder. Close dialog and exit Color iControl. Run REGEDIT program and change the setting
“HKEY_CURRENT_USER\Software\GretagMacbeth\Color_iControl\Preferences\Job Defaults\Program Path” to point to the users’ Color iControl system folder (make sure you include the “\” at the end of the string).
- 14) To connect your computer to a terminal server session, each client computer uses “Remote Desktop Connection” to logon and establish a remote session with the server. The RDC comes already installed on WindowsXP (you will find the *remote desktop connection* icon under Programs->Accessories->Communications). For older operating systems, you may have to install the remote desktop client software. The installer for this software can be found on the Terminal server under the windows\system32\TSCClient folder. For ease of use, you may create a shortcut “RDP” file that contains the target server name, account, and user session preferences. Edit the settings in the remote desktop connection dialog, then save to an appropriate RDP file. Make sure you set EACH tab with appropriate values, including support for serial port and printer mapping, support for True Color (24 bit), and the proper selection for connection speed under “Experience”.

