

Cconnect.exe Version 1.3

Con-Current Connection Limiter

Client and Administrator

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Introduction

These tools provide a method of tracking Con-Current Connection of users and monitoring what computers users are logged into. They are included in the *Microsoft® Windows® 2000 Resource Kit*.

Features:

- Is completely hidden from the end user.
- Keeps track of all computers that users are logged into.
- Allows concurrent connection limitations to be set on a per-user/group basis.
- All information is kept in a Microsoft® SQL Server™ database assigned by the Administrator.
- Tracks last known user of the computer
- Monitors what logon server users are logging into.

System Requirements

CConnect Client & Administrator are exactly the same.
These tools can be run on Microsoft® Windows NT® 4.0, Service Pack 4 or higher, and on Windows 2000.

Microsoft® SQL Server™ 6.5 or higher.
Windows 2000 has no system requirements.
For Windows NT 4.0 see Special Requirements.

Note that to use the VBS files, CConnect client must be run successfully at least once to properly set up the database. Otherwise the VBScripts will fail. See VB Script usage for more information.

Group Policy Instructions and Explanation

CConnect comes with a Group Policy ADM file. This ADM file can be loaded into System Policy Editor and allow multiple settings to be created through group policy.

Con-Current Connection Maximum's can be set.
The SQL server connection information. The credentials CConnect requires to run.
Track Last User.
Enable Debugging
Disable Remote Logoff Feature
Enable Force Logoff
Enable Event Logging
Enable Timer Logoff
Enable Silent Mode

To enable the ADM file for Windows NT 4.0 follow the following steps.

1. Start Policy Editor (Poedit.exe)
2. Select **Options** then **Templates**
3. Select **Add** Then browse for CConnect.adm
4. Select **OK**.
5. All new policy files will now be able to apply CConnect Registry Keys

To enable the ADM file within Windows 2000 follow the following steps.

1. Start Active Directory Users and Computers Snap-In
2. Select the level at which you wish to apply the policy. For this example we will use an organizational unit.
3. Right-click the organizational unit and select **Properties**
4. Select the Group Policy Tab
5. Select **New** then type in a new policy name CConnect Policy
6. Select **Edit**
7. Under **User Configuration**, select **Select Administrative Templates**
8. Right-click Administrative Templates -> Select Add/Remove Templates
9. Select **Add**
10. Browse for the CConnect.ADM file
11. Select **OK** then close.
12. From the Top Menu Select View, and clear "Show Policies Only"
13. You should now see all CConnect Policies and be able to edit them

The only way to enter the SQL connection information for CConnect is to use the Group Policy ADM file or by manually editing the registry. The three registry keys are

HKEY_CURRENT_USER\Software\Microsoft\CConnect\SQLSERVER

```
HKEY_CURRENT_USER\Software\Microsoft\CConnect\SQLUSER  
HKEY_CURRENT_USER\Software\Microsoft\CConnect\SQLPASSWORD
```

It can also be entered in if the initial time CConnect is run and the credentials are not supplied. This it will prompt the user to enter the credentials to connect to the SQL server.

Track Last User is a feature that enables more Windows 2000 security. If “track last user” is enabled, and the computer was not properly shut down (see Dirty Shutdown later in this document for more information), CConnect will not remove the user/computer entry from the database. No other use except the last known user will be able to log in to the computer. If the last known user does log in, then the database is updated with the new information.

Enable Debugging policy, will enable debug output of both the client and the administrative tool. The output will be on the %SystemDrive%\CConnect.txt for the client tool. And %SystemDrive%\CCAdmin.txt for the administrator tool.

Disable Remote Logoff Feature give the administrator the ability to allow the user to see which computers their account is logged into. But it does not allow them to remotely log off the computer. This can be used for companies that wish to provide a mechanism for users to know where their account is logged in, but the users are not administrators of the local computer. Being an administrator of the local computer is a system requirement to remotely log off a computer.

Enable Force Logoff gives the administrator to forcibly log off a user from the local computer when their Con Current Connection Limitation is reached. When this is enabled, the user will not be prompted for anything, they will simply be logged off the current computer.

Enable Event Logging gives a greater error logging to CConnect. The CConnect Client will now, log events for all errors it encounters. It will also log events for any successful acts that occur. Such as proper loading and unloading as well as all logoff attempts. Whether successful or not. Event Logging will log events to the local computer unless otherwise specified. In which case you can specify a specific Event Server to use in the Group Policy. CConnect will write events to that server’s application log.

Enable Time Logoff forces the user to log off the local computer if they do not make a choice when the user is presented with the logoff choice. Example would be when the user is presented with the choice to be logged off the local computer or logoff one of the remote computers they are logged into. If the Enable Time Logoff feature is enabled. You can limit the amount of time they have to choose. When the timer expires, whether or not they made a choice it will log them off the local computer.

Enabling Silent Mode feature will not prompt the end user when the CConnect Client receives an error. Meaning that if CConnect experiences any connection problems or update problems the end user will not be notified. It is recommended that you enable Event Logging or Debug mode, so that the administrator can track success or failure of CConnect Client.

SQL Server Installation

SQL server 6.5 or higher is another requirement. In order for CConnect to work, each install of CConnect must be given certain rights via a Server Name, Username and Password to the appropriate SQL server. These rights are as follows.

Database Creation
Table Creation
Field Creation
Field Update and Delete

These rights are very similar to the SA user account rights. It is suggested that the Administrator create a New User with Full Rights to the SQL server. Create a New Device and a New Database within that device. Assign the new account that database as its default database. If this is not done, CConnect will use the SA defined default database, which is MASTER. Otherwise, it will use the default database for the new user.

Once the SQL server has been installed, the first step is to create a new database. It is recommended that you use another SQL server specifically assign for CConnect. Try not to use a current production SQL server.

1. Open the SQL Manager
2. Open the Database List
3. Right click the Databases Folder
4. Select New Database
5. Label it CConnect – Leave the Default settings. CConnect will automatically configure the Database when it is first run.

The next step is to create a SQL Login. It is highly recommended that you enable a SQL specific Login, not a Windows 2000 login.

1. Select the Security folder
2. Select Logins
3. Right-click Login and select New Login..
4. Name the New Login CCLogin
5. Select SQL Server Authentication and place a Password
6. Under Defaults, select CConnect as the Default Database and its you respective language
7. Under Database Access tab Check of CConnect Database
8. Under Database Roles, select all Roles
9. Under the Server Roles tab Select all Roles. The CCLogin Account will now be the equivalent to the SA Account, yet its default database will be CConnect.

This new user's credentials can be assigned to every computer through the CConnect group policy ADM file. If the credentials do not exist, the user will be prompted to enter the credentials the first time CConnect is run. Once the credentials are supplied they will not be prompted again.

Dirty Shutdown

There can be instances where users will not properly log off or shut down a computer. In this case, neither the CConnect.exe nor VB Scripts will be enabled. Should this occur CConnect will not be able to remove the user information from the Database. Should the user log back into the same computer that currently exists for that user in the database, the existing settings in the database will be over written with the current information. Although if the user log's into another computer that is not currently in the database for that user. The user will be prematurely logged off because CConnect believe that user to be logged into another computer. To resolve this problem follow the following steps.

1. Open CConnect Administrator (CCAdmin.exe)
2. Type the name of the user
3. Select Search Database
4. Select the computer name for the user that exists in the list
5. Select Delete computer
6. This will remove the computer entry for that user.

VB Script Usage

This new feature is for Windows 2000 only. Windows 2000 now gives us the ability to assign login/logout scripts per Group Policies. CConnect includes CConnect.vbs and CCLogoff.vbs files.

Note that to use the VBS files, CConnect client must be run successfully at least once to properly setup the database. Otherwise the VBScripts will fail.

CConnect.vbs is the login script and CCLogoff.vbs is the logoff script. Should you not want to enable all the complete functionality of the Client EXE, you can simply limit concurrent connections and use the admin tools with just the VBS files. Note that if you want to have the other features such as enabling the client to see and log off remote computers that they are logged into, the CConnect Client EXE needs to be installed and used. If you wish to just limit con current connections and force users to log off when they get those connections, you can use the VB Script files.

Special Requirements

Windows NT 4.0 has special requirements for CConnect to run properly.

Windows NT	SP4 or later
Windows NT	Windows Script Host
Windows NT	WBEM
Windows NT	MDAC v2 or Higher

All of the above can be found at the following Web site:
<http://www.microsoft.com>

Installing CConnect

CConnect can be easily installed by running the Setup.exe program under Platform\App\CConnect<Respective Tool> for each application. Or by using an MSI installer for Windows 2000.

Using the Tool

Using CConnect Administrator:

This describes how to view Con-Current Connections of specific Users.

Enter the Users name in the text box.

1. Click search.
2. All Con-current connections will be shown in the list box below.

If for some reason, the user's computer was not properly deleted from the database, or if the Administrator wishes to deleted the computer from the database. Clicking

“Delete Computer” removes all computer specific information from the database.

To view a list of the entire known users/computers/logon servers for the SQL Database, choose “List All”. This will present you with a complete listing of all known records in the database.

To log off a user from the remote computer, click the **Log Off** button. You must first search for a specific user name. Then select the computer from the list of computers that the users account is currently logged into. Then select “Logoff”. This will remotely log off the user if you are an Administrator of the remote computer.

In case for some reason, the administrator feels it is necessary to clear the entire database, you can click the **Clear Database** button. Note that once this is clicked and you continue to remove the database, there is no reversal of this process. The database is completely wiped unless you have a manual backup.

To list all the users that are logged onto a specific computer click the **List Logon Server** Button. Then select the logon server from the drop-down box. The list presented is a list of all users' that are currently logged into that domain controller.

Other Information

To enable debugging CConnect, in either tool, you can use the Group Policy ADM file and click **Enable Debugging** or go to HKCU\Software\Microsoft\CConnect\Debug (DWORD) value of 1.

It is also recommended that you enable Event Logging of CConnect to monitor its usage.

The current version of CConnect places the SQLserver connection information directly into the registry as Clear Text. It is highly recommended that you disable access to the Registry. Also, do not use Windows NT authentication when creating a SQL server Account for CConnect due to this limitation. As well as not using a current SQL install.

Even though CConnect Client appears to not be running on the local computer, it is loaded into memory. It is recommended that Administrators restrict access to the Task Manger. Should users be able to access Task Manager, they will have the ability of removing it from memory. This can cause the Users information to be removed from the database with out properly being logged out or can even leave the users information in the database, which will increase the number of con current connections when they try to log on to another computer.

If you are planning to distribute CConnect across multiple sites, it is recommended that you establish separate databases at each separate location. With SQL 6.5 and SQL 7.0 database replication can be established. You can use the SQL replication schedule to limit bandwidth

consumption during peak hours. Future releases of SQL will allow for integration with Active Directory Site configuration.

All CConnect registry keys are stored under

Hkey_CurrentUser\Software\Microsoft\CConnect

Feedback

For questions or feedback concerning this utility, please contact rkinput@microsoft.com.

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