



INFOBrief

Dell Client Configuration Utility

Key Points

The Dell Client Configuration Utility is:

- a tool for managing Dell clients with features that include: BIOS flashing, shutdown/restart/Wake on LAN (WOL) setting, asset/inventory information reporting, and system parameter configuration including Systems Management Basic Input Output System (SMBIOS), CMOS and operating system parameters.
- based on packaged executables enabling systems administrators to perform management tasks remotely and unattended when used with a software delivery solution.
- designed to leave zero footprint after execution and does not require preinstalled hardware instrumentation agents on the target system.
- optimized for high security through the use of operating system-based authentication and authorization.

Product Description

The Dell Client Configuration Utility (DCCU) is an extremely useful tool for managing multiple Dell clients – asset/inventory reporting, configuration management and BIOS updating – when used in conjunction with a software distribution solution. It also is part of Dell's product set for simple, automated management for maximizing the value of IT infrastructure.

The DCCU can be installed and run on any administrative client or server. No installation is necessary on the systems to be managed. It is designed to leave zero footprint on the managed system. The user simply runs the utility and chooses which of the following functions to perform on the target systems:

- Configure various SMBIOS, CMOS, and operating system settings
- Review configuration
- Retrieve asset and inventory information
- Update BIOS as needed
- Shutdown/Restart as needed
- Manage the BIOS administrative password
- Manage the boot order



Figure 1
Inventory and System Parameters Summary in the Client Configuration Utility

Product Information

Part of Dell's commitment to the customer for systems management is provided in the Dell Client Configuration Utility. It allows configuration management of multiple systems, provides asset and inventory reporting, and works well with existing infrastructure solutions such as software distribution and custom designed management implementations. This makes the DCCU a useful component of Dell's overall Systems Management strategy.

The DCCU displays the **inventory and system parameters** of the client, such as identifying the operating system, processor speed, or the memory available. Figure 1 provides an example of this reporting. This information can be critical to the administrator when determining how to upgrade a system that may or may not be in the same building (or city, state, continent).

Use this tab to select properties for retrieval on client machines. Click Open Output File when done.

Property	Values	Outcome	Property	Values	Outcome
<input type="checkbox"/> ACPowerRecoveryMode	Other	-	<input type="checkbox"/> Onboard1394	Other	-
<input checked="" type="checkbox"/> AGPSlot	Other	-	<input type="checkbox"/> OperatingSystem	Other	-
<input type="checkbox"/> AssetTag	Unsettable property	-	<input type="checkbox"/> ParallelPortConfiguration	Other	-
<input type="checkbox"/> AudioMode	Other	-	<input type="checkbox"/> ParallelPortMode	Other	-
<input checked="" type="checkbox"/> AutoOn	Other	-	<input type="checkbox"/> PCISlots	Other	-
<input type="checkbox"/> AutoOnHour		-	<input type="checkbox"/> PowerManagementSettings	Other	-
<input checked="" type="checkbox"/> AutoOnMinute	23	-	<input type="checkbox"/> ProcessorSpeed		-
<input type="checkbox"/> BIOS	Defines the minutes within the hour to turn on the system (0-59).	-	<input checked="" type="checkbox"/> ProcessorType	7 = '8087'	-
<input type="checkbox"/> BIOSVersion	Unsettable property	-	<input type="checkbox"/> PropertyOwnershipTag		-
<input type="checkbox"/> BuiltInFloppy	Other	-	<input type="checkbox"/> SerialPort1Configuration	Other	-
<input type="checkbox"/> BuiltInNIC	Other	-	<input type="checkbox"/> SerialPort2Configuration	Other	-
<input type="checkbox"/> BuiltInPointingDevice	Other	-	<input type="checkbox"/> ServiceTag		-
<input type="checkbox"/> ChassisIntrusion	Other	-	<input type="checkbox"/> SMBIOSSupported	1 = 'False'	-
<input type="checkbox"/> ChassisIntrusionStatus	Other	-	<input type="checkbox"/> SpeakerVolume	Other	-
<input type="checkbox"/> EnableDisableBIS	Other	-	<input type="checkbox"/> SystemClass	Other	-
<input type="checkbox"/> ExtensionTokens		-	<input type="checkbox"/> SystemDescription		-
<input type="checkbox"/> ForcePXEonNextBoot	Other	-	<input type="checkbox"/> SystemIDByte		-
<input type="checkbox"/> IDEController	Other	-	<input type="checkbox"/> SystemName		-
<input type="checkbox"/> IntegratedAudio	Other	-	<input type="checkbox"/> SystemVendor		-
<input type="checkbox"/> KeyboardErrorReporting	Other	-	<input type="checkbox"/> USBEmulation	Other	-
<input type="checkbox"/> MaximumPasswordLength		-	<input type="checkbox"/> USBPorts	Other	-
<input type="checkbox"/> MemorySize	Unsettable property	-	<input type="checkbox"/> VGADACSnoop	Other	-
<input type="checkbox"/> NumberOfBootDevices	Unsettable property	-	<input type="checkbox"/> WakeupOnLAN	Other	-
			<input type="checkbox"/> WakeupOnLANMethod	Other	-

BootDevice Device: <No Value> Status: <No Value> Priority: <No Value> Outcome: -

Figure 2
Setting Parameters with the Dell Client Configuration Utility

Sometimes reporting is not enough. Administrators want to **manage and configure** the clients as well. The Client Configuration Utility provides this ability through a user-friendly, interactive graphical user interface (GUI).

Over 50 parameters in the SMBIOS, CMOS and operating system are available to be managed. Each one is listed with all of its acceptable values, if applicable. Descriptions of the parameters are included and can be accessed by simply hovering over the name of the parameter.

Figure 2 demonstrates how parameters can be managed and values selected using the easy-to-use pull down boxes.

At Dell, we have a goal to help our customers cost-effectively manage their standardized technology through its entire lifecycle. During the life of a client, updates are sometimes required. For example, if the administrator wants to update or **flash the BIOS** of remote systems from their local administrator machine, the Dell Client Configuration Utility can be used to simplify this task.

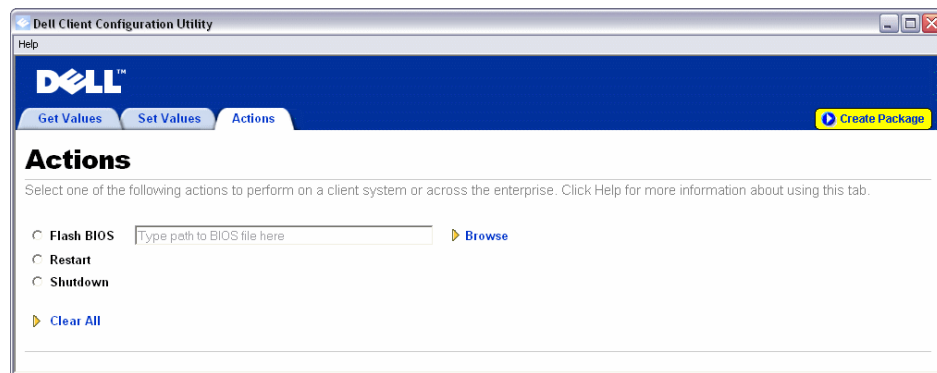


Figure 3
Performing Actions with the Client Configuration Utility

Just download the update from the Dell support site (support.dell.com). Select the flash function from within the DCCU and browse to the downloaded BIOS file. Create the executable package and distribute it to the target systems for execution. The system will automatically reboot after flashing to preserve the integrity of the BIOS.

Figure 3 displays the Actions screen where the updating of the BIOS can be chosen. The Actions screen also allows the administrator to shut down and restart managed systems at will.

All actions performed by the Client Configuration Utility are recorded in easy-to-use, Extended Markup Language (XML) files. The **reporting** features

in the utility will allow the administrator to quickly understand the status of the system and the results of the selected actions.

A single file is used to record all the results but up to two additional files may be created. All three files will be identical in content but the titles will change based on the status of the executed commands. One of the additional files will contain the word SUCCESS and the other FAILURE if any of the actions have either of these statuses. The administrator can then efficiently collect information from the systems that need further attention.

Security

Security continues to be a key concern for businesses. The Client Configuration Utility is designed to optimize **security** while performing management functions.

The Client Configuration Utility uses the operating system user Ids and passwords. The user will not have to establish another ID and the security administrators will not have to force additional policies on these Ids outside the operating system domain. Actions will be executed according to already established authority levels.

Integration

To facilitate integration into customer environments, the Dell Client Configuration Utility continues to support standard technologies. These technologies include: XML and SMBIOS.

These standards enable the use of industry-leading tools to manage clients and to obtain vital information about those clients.

Manageable Parameters

System parameters can be reviewed by simply using the Get Values function within the Dell Client Configuration Utility. Many of these parameters can also be set or **managed**. The parameters that can be managed through the DCCU are shown in Table 1.

Table 1
Manageable parameters for the Dell Client Configuration Utility

Parameter	Description	Manageable
PropertyOwnershipTag	Defines the Dell Property Ownership Tag for systems that support it. If a system does not support this feature, this property should be left blank.	Y
AssetTag	The Asset Tag of the computer.	Y
ExtensionTokens	Determines what extension tokens are available in the system.	N
BIOSDate	The BIOS release date.	N
BIOSVersion	BIOS version number of the computer.	N
ProcessorSpeed	The current processor speed.	N
ProcessorType	The family of processors to which the processor belongs.	N
SystemDescription	Product name for the system.	N
SystemVendor	Manufacturer of the system.	N
SystemIDByte	Defines the Dell Systems ID Byte for systems that support it. If a system does not support this feature, the value = -1.	N
ServiceTag	The Service Tag of the computer.	N
SystemClass	The system type which is installed and running the instrumentation.	N
SMBIOSSupported	Defines whether the computer supports the Dell SMBIOS implementation.	N
ACPowerRecoveryMode	Allows the setting of the AC Power Recovery Mode in BIOS. Unsupported means that this system BIOS does not support the setting of the AC Power Recovery Mode.	Y
AGPSlot	Enables or disables the integrated AGP slot at the next boot.	Y
AudioMode	Integrated audio mode.	Y

	Disabled mode completely unassigns the integrated hardware resources. Half duplex mode allows only record or playback. Full duplex mode can simultaneously record and play back sounds. All nonportable systems return Unsupported for this property.	
AutoOn	Defines the auto-on configuration: disabled, every day or weekdays (Monday-Friday).	Y
AutoOnHour	Defines the hour to turn on the system (0-23).	Y
AutoOnMinute	Defines the minutes within the hour to turn on the system (0-59).	Y
BuiltInFloppy	Defines whether the integrated floppy disk controller is enabled, auto, or read-only.	Y
BuiltInNIC	Defines whether the integrated NIC is enabled or disabled.	Y
BuiltInPointingDevice	Defines whether the integrated pointing device port is enabled or disabled.	Y
ChassisIntrusion	Enables the computer to detect and report chassis intrusion events to the system display on start-up.	Y
ChassisIntrusionStatus	Displays the status of the computer with regards to chassis intrusion (Detected or Not Detected). A value of Unknown indicates one of two things: either chassis intrusion is not supported by the computer, or chassis intrusion event reporting has been disabled by the user. If the value is Detected, the user may set it to Not Detected to enable the computer to receive the next event and to stop generating events for the time being.	Y
EnableDisableBIS	Allows the enabling/disabling of the Boot Integrity Services (BIS) in BIOS. Unsupported means that the system BIOS does not	Y

	support BIS.	
ForcePXEonNextBoot	Allows the enabling/disabling of Force PXE at the next boot in BIOS. Unsupported means that this system BIOS does not support Force PXE at the next boot.	Y
IDEController	Defines whether the IDE controller is enabled or disabled.	Y
IntegratedAudio	Status of the computer's integrated sound device.	Y
KeyboardErrorReporting	This attribute allows the enabling/disabling of Keyboard Error Reporting in BIOS. Unsupported means that the system BIOS does not support Keyboard Error Reporting.	Y
Onboard1394	Enables or disables the integrated IEEE 1394 controller at the next boot.	Y
ParallelPortConfiguration	Defines the parallel port configuration.	Y
ParallelPortMode	Defines the parallel port mode.	Y
PCISlots	Enables or disables the computer's PCI slots.	Y
PowerManagementSettings	Defines the power management settings. All nonportable systems return Unsupported for this property.	Y
SerialPort1Configuration	Defines the serial port 1 configuration.	Y
SerialPort2Configuration	Defines the serial port 2 configuration.	Y
SpeakerVolume	The volume of the speaker.	Y
USBEmulation	Enables or disables USB keyboard and mouse support for operating systems that do not natively support USB keyboards and mice.	Y
USBPorts	Enables or disables the computer's USB port.	Y
VGADACSnoop	Allows enabling/disabling of VGA DAC Snoop in BIOS. Unsupported means that the system BIOS does not support	Y

	VGA DAC Snoop.	
WakeupOnLAN	Defines whether Wakeup On LAN is disabled, enabled for integrated NIC only, or enabled for add-in NIC only. If Enabled with boot to NIC option is selected, the system boots from the NIC boot-ROM upon a remote wakeup.	Y
MaximumPasswordLength	Indicates the maximum length of the Administrator password, which corresponds to the BIOS setup password.	N
MemorySize	Contains the amount of RAM in the computer.	N
NumberOfBootDevices	Indicates the number of boot devices on the system.	N
OperatingSystem	The operating system which is installed and running on the computer.	N
SystemName	The name of the system.	Y
WakeupOnLANMethod	Defines the Wakeup On LAN method supported by the system.	N
HyperThreading	Enables or disables the hyperthreading capabilities of the system.	Y
Infrared	Enables or disables the built-in infrared device	Y
Numlock	Allows setting of the method by which the keyboard's embedded keypad is enabled.	Y
Serial ATA Channels	Enables or disables the various serial ATA channels on the next boot to BIOS.	Y
Wireless Control	Allows setting of the method by which wireless access is enabled.	Y
BIOS Admin Password	Configuration of the BIOS Administrative password.	Y

Supported Configurations

OptiPlex™ Desktops	Latitude™ Notebooks	Dell Precision™ Workstations
GX60	C800	530
SX260	C600	340
GX400	C500	350
GX240	C610	450
GX260	C810	650
GX150	C400	M50
GX50	C840	M60
SX270	C510	
GX270	L400	
	X200	
	C540	
	D600	
	D800	
	D500	
	D400	
	X300	

Running the following operating systems:

- Microsoft® Windows® 2000
- Microsoft Windows XP Professional

Other requirements:

- Administration System only
 - Microsoft .NET Framework
 - Internet Explorer 6

A software distribution solution of some kind must be used to deliver the executable packages to the target systems. Possible implementations include, but are not limited to:

- Altiris® Software Delivery Solution
- Microsoft SMS
- Remote or local file copy

Service and Support

Dell offers a telephone technical support service for this software at no additional charge to support customers with installation and configuration questions. The following support is included:

- Basic installation and configuration
- Verifying the functionality of the above installation and configuration
- Verifying and troubleshooting network connectivity
- Uninstalling software

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