



# Centrally Managing iTunes

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**Author:**

John DeTroye

[detroye1@apple.com](mailto:detroye1@apple.com)

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## Summary

- Macintosh client systems can be managed in large numbers using network centric tools
- Macintosh client systems are designed for the multi-user environment found in Education
- iTunes supports network-based management on the Mac OS through Workgroup Manager and preference manifests
- iTunes for Windows can be managed using the policy settings supported in the Windows network management model
- Mobile devices can be managed using the iPhone Configuration Utility to provide a series of controlled settings

## Educational Use of iTunes

In Education, the use of mixed media in instruction is normal practice today. The tools for creating this media are prevalent in most school districts, and the ability of students and teachers to store and access this media has become of paramount importance. When the “job” of a student is to learn as much as possible about a subject, produce a plethora of material to display that knowledge, then present that material for evaluation in writing, orally, or electronically; the need to create, store, and manage that material is no longer just “something nice” - it is mandatory.

iTunes allows for the storage and management of a wide range of mixed media from simple presentations to voice recordings to movies. Since iTunes is also the primary tool for storing and managing commercial recordings and applications, as well as podcasts and iMovie projects, the need to manage school-owned systems with iTunes becomes important.

### Usage Scenarios

There are many scenarios covering the use of iTunes in a school environment; but here are a few cogent examples:

#### Research

The student is studying the Roman Empire. In order to gather the most current information available, he subscribes to several podcasts and downloads a History Channel series on the Roman Empire. He also stores his presentations in his iTunes library for easier retrieval.

For physics class, the student has downloaded an application from the iTunes Store for doing mechanical testing.

#### Teacher-created media

A teacher creates a series of audio podcasts to accompany a presentation of the history of the Roman Empire, plus she videotapes the students doing their presentations and stores those videos as podcasts in her iTunes library and on the class wiki.

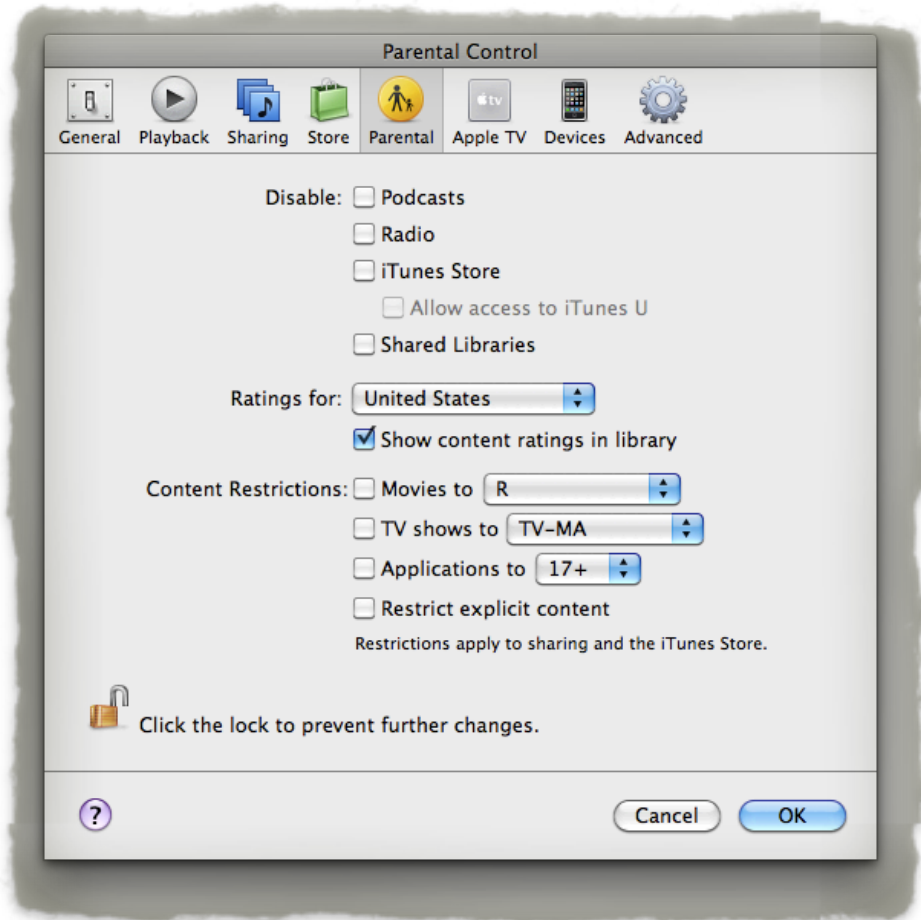
#### Student-created media

A student is required to create an audio recording of them reading a set of paragraphs for language class, and stores these in iTunes for review. The student also creates a presentation and records the narration to accompany that presentation, storing the result in iTunes for easy retrieval.

Note that these are educational uses of iTunes, and in many instances, will be mixed right in with the student or faculty member’s own music, podcasts, movies, etc. This makes any attempts at discerning content by type virtually impossible.

## Education Solutions

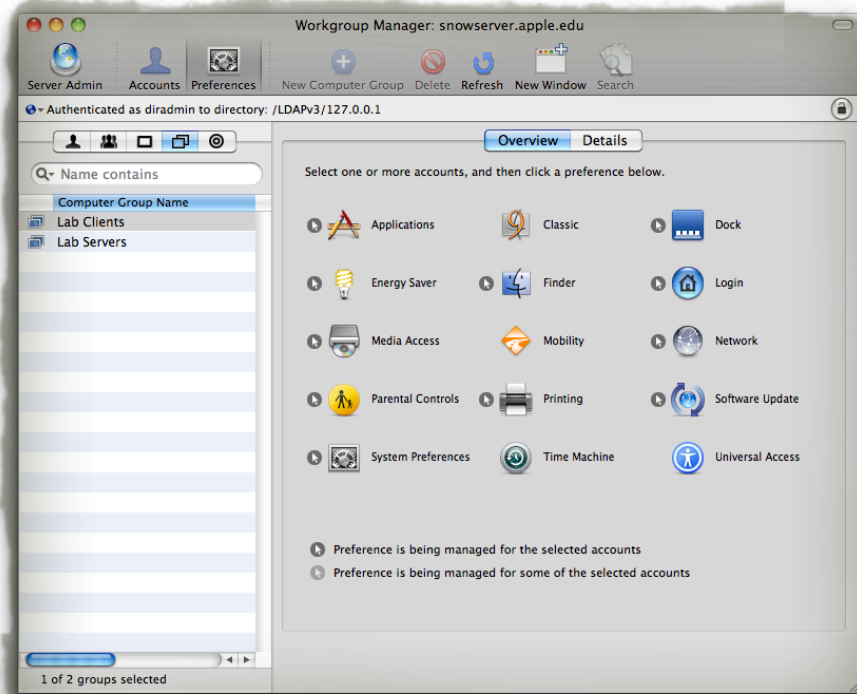
In order to properly manage iTunes on school-owned Mac OS clients, we can use the local Parental Controls, or network settings provided by Workgroup Manager (WGM). The local controls look like this:



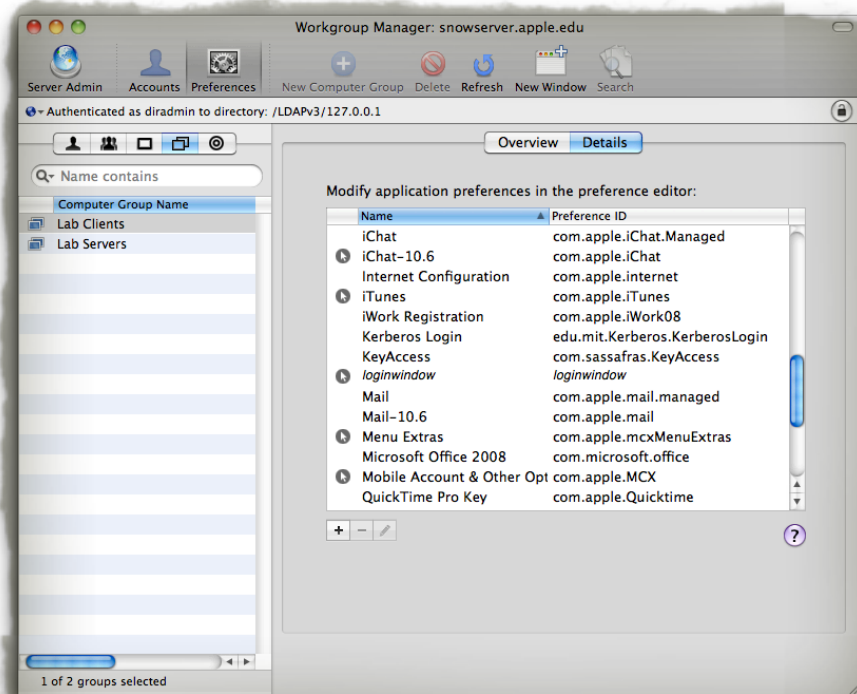
While the settings available locally are quite extensive, they do not scale well to large deployments. We can establish settings at machine level, then make these settings part of our client image. Once deployed onto hundreds, or thousands, of client systems, changes are extremely difficult. For mass deployment, using the Managed Client for Mac OS X (MCX) settings applied from a network directory makes much more sense.

## Workgroup Manager

The primary tool for network based management is Workgroup Manager (WGM). It can be used to establish many, if not most, of the possible preferences for any system setting or application on a network-bound Mac client. In most scenarios, the Mac client is bound to a directory for authentication, either OD or AD, to verify the user by password. The client can also be bound to an OD server for authorization, such as iTunes preferences. In some cases, the network directory is the same; but this is not required.



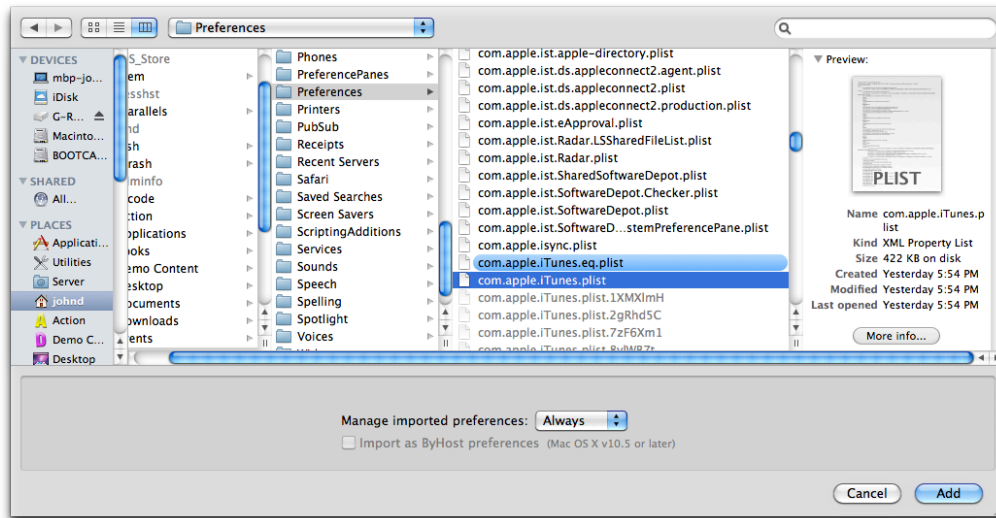
WGM does not have a direct GUI-based iTunes settings array. The tools to establish iTunes management come from the “Details” section.



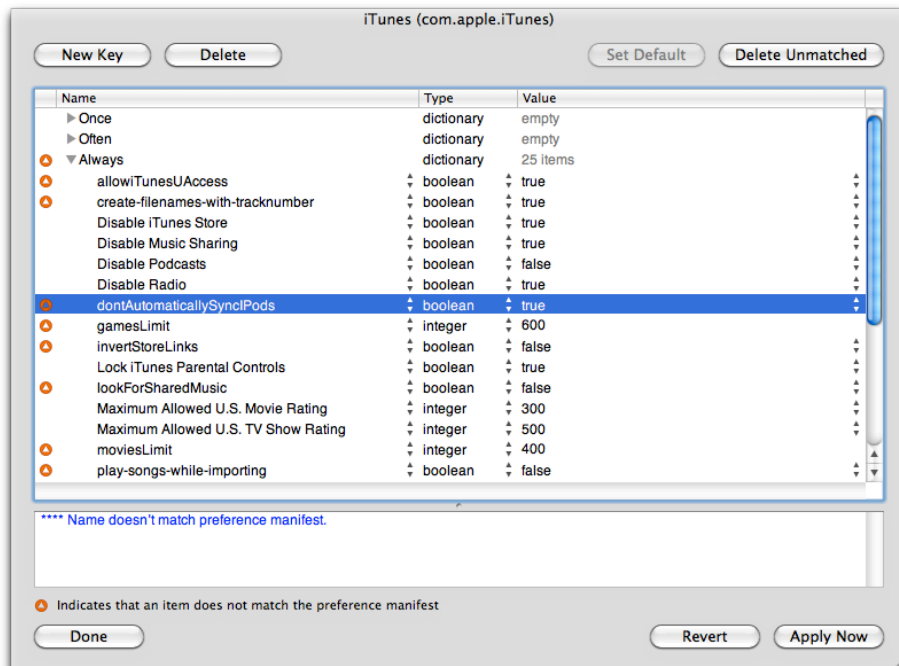
In this section, we can import settings or use the built-in preference manifests.

## Importing iTunes preferences

A standard practice for MCX configuration is to create a “master” client system that will behave the same as the mass deployed systems. In the case of iTunes management, we will set the values we desire in the local iTunes preferences, then import those settings into WGM. The server admin tools with WGM must be installed on the “master” client in order to do this.



In WGM, we select to add a preference set, then locate the iTunes property list in our local admin’s home directory. This file is named “com.apple.iTunes.plist” and contains all of the settings we made locally. These values will be imported into the “Always” domain to insure that the user does not change them.

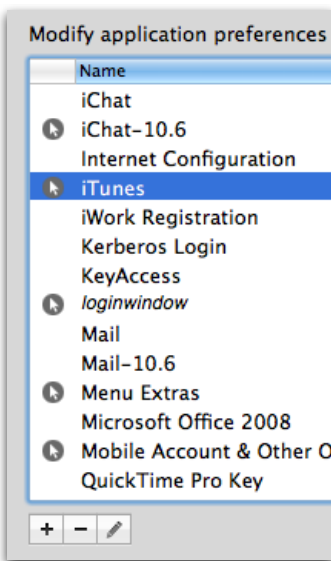


Once imported, the entire set of values is displayed, and we can tune the settings, removing unneeded items, and adjusting settings as we see fit.

## iTunes Preference Manifest

The current version of Managed client supports a unique set of “preference manifests” that provide settings for certain applications. iTunes is one of these supported applications. A preference manifest is a database of “keys” or managed items within an application. We can use these keys along with our own preferences.

The keys are added from within the Details section of WGM. (More information on these and other MCX settings are in the Client Management whitepaper posted at <http://www.apple.com/education/it-professionals> under the Resources sidebar item.)

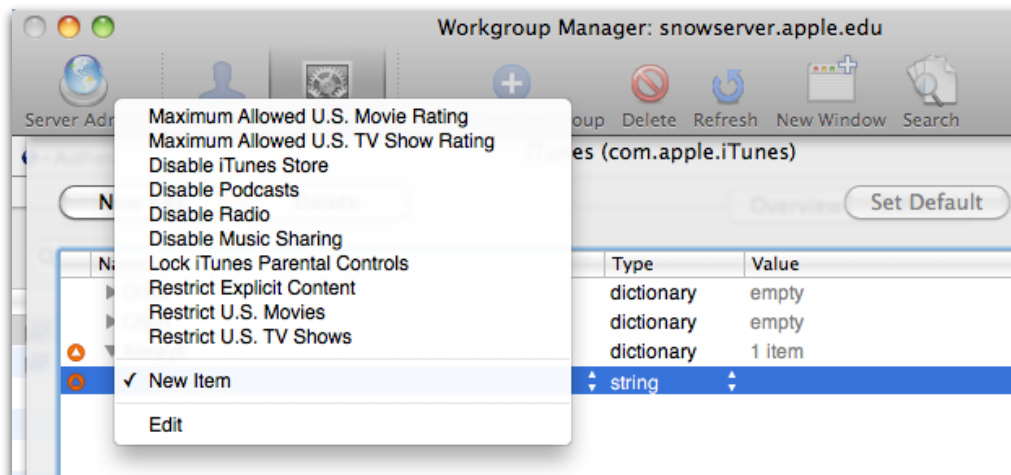


The manifest items come from the Managed Client application itself. This application resides in /System/Library/CoreServices/ and can be added to the Details section the same way we added the local iTunes property list.

Once added, the iTunes manifest is displayed, as well as several other useful application and systems manifests.

Selecting the iTunes manifest, then the edit button (the pencil icon), we can view the domain settings and add the appropriate keys for our client systems.

If we add these items to the cleaned up list of preferences from our property list import, we will have a full set of management settings, including being able to allow access to iTunes University, allow/block use of the radio, allow podcasts, allow/block access to the iTunes Store, and control iTunes sharing.



These settings can be applied to differing groups of computers or users as needed, and since they are applied at network level, they can be changed as needed from a central location, requiring only a user logout to refresh the settings.



## Windows iTunes Management

Client systems running MS Windows can be centrally managed through GPO (group policy objects). The keys for iTunes preferences match those used in the Mac OS iTunes preferences. The instructions for setting up this management comes from an Apple Knowledge Base document (kbase) as well as the iPhone Configuration Utility guide:

### Setting iTunes Restrictions for Windows

On Windows, you control access by setting registry values inside one of the following registry keys:

On Windows XP and 32-bit Windows Vista:

- HKEY\_LOCAL\_MACHINE\Software\AppleComputer,Inc.\iTunes\[SID]\Parental Controls\
- HKEY\_CURRENT\_USER\Software\AppleComputer,Inc.\iTunes\ParentalControls On 64-bit Windows Vista:
- HKEY\_LOCAL\_MACHINE\Software\Wow6432Node\AppleComputer, Inc.\iTunes\[SID]\Parental Controls\
- HKEY\_CURRENT\_USER\Software\Wow6432Node\AppleComputer, Inc.\iTunes\Parental Controls

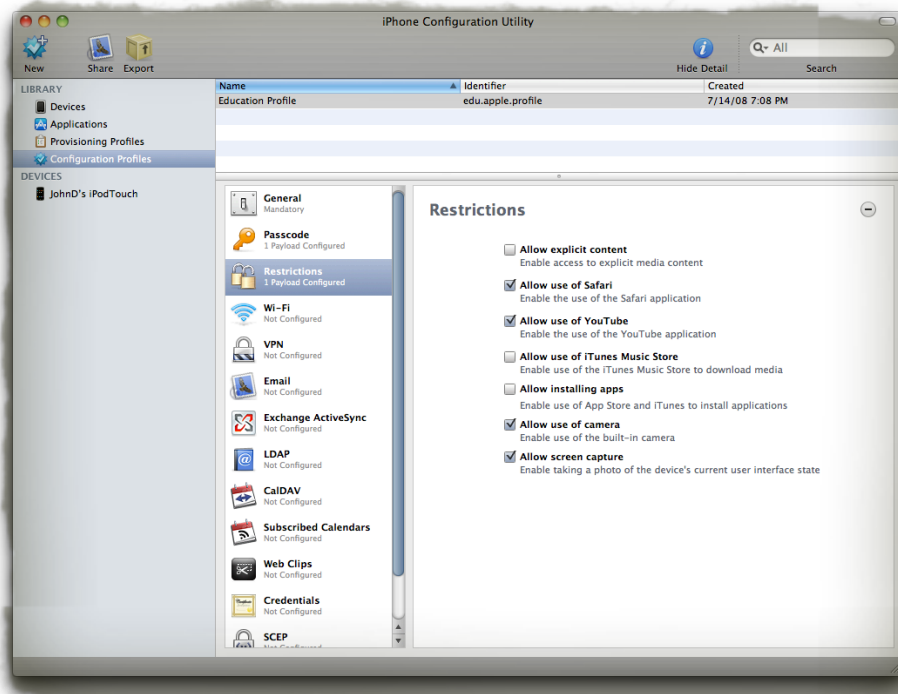
For information about the iTunes registry values, see the Apple Support article at <http://support.apple.com/kb/HT2102>.

For general information about editing the Windows registry, see the Microsoft Help and Support article at <http://support.microsoft.com/kb/136393>.

## iPhone Configuration Utility

Management of mobile devices is becoming a critical part of the Education road map. With the introduction of the iPad, as well as the iPod Touch, schools are looking to establish basic management controls of school-owned mobile devices. The iPhone Configuration Utility is the primary tool used to establish these settings. Following is a series of screen shots and explanations of some of the key preference settings.

### Basic restrictions



The utility allows simple settings such as the blocking of YouTube access, installing applications, and restricting explicit content. More information on this utility is available from the web at <http://support.apple.com/kb/DL851>