

NetWare Client For Mac OS X IP Edition
Version 2.0
July 17, 2006

Important!!

If you are upgrading from a previous version, please unmount all NetWare volumes and logout of NetWare before continuing with the installation.

Purpose:

To allow a Macintosh computer running Mac OS X 10.3.9, and 10.4.2 or greater to connect to NetWare servers using the IP protocol. (IPX is not supported.)

Features:

- Completely native NetWare server access - no need for any custom software on the NetWare server (such as AFP or native login support).
- Native file access to NetWare volumes (including 64bit file access and directory mount-root support).
- Native print access to NetWare queues.
- NetWare integrated login with OS X login services (10.4+ only).

What's New in 2.0:

Kernel

- Printing support.
- Intel support.
- If for some reason, the client cannot determine file permissions, it will default to full access and let the server sort out actual access.
- Bug Fix: Attempting to move a file that is in use no longer causes a stuck process, but instead returns a proper error.
- Bug Fix: Possible "Invalid preemption level" panic.
- Bug Fix: Small memory leak during volume unmount (10.4 only).

User

- Integrated login support: you can now login to NetWare and OS X using only NetWare credentials (10.4 only).
- PostScript Queue-based printing support.
- Contextless login (with some preliminary setup).
- Intel support.
- Support for Service Agents using SLPv2/NetWare 6.
- The Browser application is now a full application with a menu-bar and quit enabled.
- Registration is now system wide (instead of per user).
- Bug Fix: If restricted mode was enabled for the Browser, login would fail.
- Bug Fix: Possibility of rights utility displaying wrong permissions.

Known Problems:

1. DFS volumes are not supported.
2. Auto-Discovery of Directory Agents is not supported.

3. There is no custom document icon for NDS Alias files.

For more known limitations, see the Troubleshooting section in the User Guide.

Contacts:

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Previous Changes:

1.3.2:

Kernel

- Fixed a panic when an application tried to change the creation time of a file/directory (10.4 only).

1.3.1:

Kernel

- Fixed a bug that prevented items from being deleted (10.3 and 10.2 only).
- Fixed a bug that could cause an indefinite hang (especially on dual machines) when a file was deleted.
- Fixed a bug that could cause an indefinite hang while reading/writing a file (10.4 only).
- Fixed a bug that would cause some files to have the HIDDEN flag spuriously set when renamed. The file would then be invisible on Windows clients (unless Show Hidden Files was turned on).
- Fixed a bug that allowed items to be used from a mount-root directory and its parent volume at the same time leading to possible unexpected behavior.
- Fixed a case where an internal invalid character error was not mapped to the one the Finder expects so it can warn you before the copy begins. For this case, the Finder will no longer begin the copy and then fail in the middle of it when it hits a bad character in a file name.
- Fixed a bug that would cause applications to continually read the contents of some folders with a large number of items.
- Fixed a rare panic during name resolution.
- Worked around a possible panic during unmount or closing a directory (10.4 only).
- Fixed a possible memory leak.

User

- Fixed a bug in the uninstaller that left the client Startup Item installed.
- Fixed a licensing bug with machines that had two or more active IP addresses.

1.3:

Kernel

- 10.4.2 (Tiger) and greater systems are now supported.
- Support for volumes larger than 1TB. 10.3.9 and earlier systems are limited to 8TB volumes while 10.4.2 and later systems are virtually limitless.
- Problems with the Finder/Applications caching folder lists for too long have been fixed.

User

- Double-clicking on a volume in the Browser Mounts tab will now attempt to mount the volume.

1.2.3

Kernel

- Implemented a workaround for the missing files problems. If another client has a file open exclusively the file will now be listed in the Finder and application open panels. The file statistics (size, date, etc) will not be available, nor can the file be opened, but it will not be "missing".
- Greatly reduced our open file cache time. Open files (that are not in use by an application) will now be closed within four to six seconds. This greatly improves file sharing between multiple clients. Previous versions of the client held files open for up to eighty seconds and caused sharing problems with other clients that wanted write access to the same files.
- Fixed bug that could possibly set the create time of a file to a wrong value. This wouldn't show up in OS X clients because the creation time is not given to applications, but it would show up on Windows clients.
- Fixed a possible panic when dealing with invalid directory paths.
- Fixed a bug that would report the disk as being full if user quotas were active.
- Fixed a race condition that could cause a panic during a mount.
- Fixed a memory leak and a "ghost" volume that would occur if we failed to get the volume path from the server.

User

- Added "Force Eject All NDS Volumes" item to tree menu. Please see the User Guide for more info..
- The user guide is now accessible from the Browser tree menu.
- Reorganized the tree menu so the most often used items are listed first.
- Enabled the Minimize button in the main Browser window.
- New RefreshFrontmostFinderWindow application in /Applications/Utilities to deal with over-aggressive Finder caching.
- The Uninstaller now requires a reboot after a successful uninstall so that the system caches are cleared of the removed files.
- Fixed a Browser crash if the login window was closed immediately after a logout.
- Fixed a bug that could cause the default tree/context preferences to be cleared and not saved.
- Fixed a bug (intro'd in 1.2.2) that prevented saving NDS Alias files under 10.2.x Jaguar.
- 1.2.3.1 fixes a bug that caused demo registration numbers to fail prematurely.

1.2.2

Kernel

- Better handling of file names with invalid characters. We now return an error code that lets the Finder ignore these files and finish copying other files.
- Support for custom folder icons.
- Fixed a bug that was causing stale connections to remain open after a logout. If another user logged in before these stale connections were closed, they would end up with the previous user's rights. This in turn would cause errors when attempting to access files they should have rights to.
- On 10.3 (Panther) systems, volumes will be labeled using the NDS name instead of the NCP/Bindery name whenever possible.

User

- When in restricted mode, the Browser will clear the last user name used during login.

- It is now possible to save a Mount-Root volume as an NDS alias which can then be used to auto-mount the volume during login. Please see the User Guide for more information.
- The Browser now detects unmount failures during logout and subsequently cancels the logout.
- Fixed a minor bug that would cause some operational feedback to be lost if the Browser window was closed.

1.2.1

Kernel

- Fixed a conflict with certain other kernel drivers: VNTI, TypeRecorder, HermstedISDN, xUSBTADrv, and possibly others. The client will now function properly with any of these other drivers installed.
- Fixed some bugs that could result in login and other types of errors for objects with long NDS paths.

User

- Fixed some possible memory leaks (when an error occurred) in the shared framework.

1.2

Kernel

- Support for files larger than 4GB on servers that are running NetWare 6 SP3 or later (NSS volumes only).
 - NCP packet signing for enhanced security.
 - Directory mount-root support. (Allows a sub-directory on a volume to be mounted as if it were the root of the volume on the client.)
 - Filesystem ACL support (for viewing trustee rights).
 - We now report the size of volumes as restricted by any quotas in effect. This allows the Finder to prevent copies of files that are too large.
 - When a volume is full, or a user's quota exceeded, we return the correct error instead of a generic error. This allows the Finder to display a proper error message instead of "-50".
 - Changed volume name given to Finder, to exclude the server IP address.
 - When a file is opened with write access by an application, we now open it with exclusive access. This gives us the same behavior as Windows clients by locking out all other clients from opening the file.
 - Volume permissions are now displayed correctly. (Previous versions always reported volume perms. as Read/Write/eXecute.)
- Fixed a bug that resulted in wrong time values given to the server. This could result in a file having a creation/modification date up to three hours into the future. This also caused certain file attributes to be cached for far too long, which could result in permission changes not taking effect.
- Fixed the bug causing volume unmounts to fail with a "Filesystem Busy" error. Apple made changes in Mac OS X version 10.3 "Panther" that causes the kernel to hold extra references to a volume.

User

- Directory mount-root support.
- Upon Login, the Browser will automatically find the user's home directory in NDS and mount-root it.
- Restricted Browser interface. When activated the Preferences menu item, the Object Info button, and the Change Password button are disabled.
- SLP discovery has been moved to a separate thread. This should eliminate the annoying Browser "hangs" for long periods of time while looking for SLP services. (This has also

greatly sped up the Browser launch time.)

- 'rights' command line utility. Equivalent to the DOS rights command to view directory/file rights and trustees.
 - 'nwstats' command line utility. Prints statistics related to file and network I/O.
 - The Browser will now find new NDS objects (created while browsing) with much more frequency. Previous versions were too aggressive with results caching.
 - Greatly reduced the number of new server connections the Browser creates while browsing.
 - Reduced Browser memory usage (especially when there are a large number of objects).
 - Scrolling through large lists of objects in the Browser is faster than previous versions.
 - Object names that are longer than the Browser columns are now truncated in the middle with an ellipsis.
 - SLP errors caused by improper configuration are now reported.
 - More NDS error codes have human readable text mappings.
-
- Fixed some memory leaks in the Browser.
 - Fixed a bug that caused the Browser to consume quite a bit of CPU time while idle.
 - Fixed a couple of possible Browser crashes.
 - The Browser is no longer set to hide on auto-launch. This resolves an issue with Panther where the Tree menu would not accept mouse clicks.

1.1.2

User

- SLP is no longer required for NDS browsing. See the User Guide for more information.
- Better error feedback.

1.1.1

Kernel

- Fixed a bug that was causing mount failures for volumes with non-ascii characters in their name.

User

- Fixed an Installer bug that caused upgrades from 1.0.x installs to fail.
- All status messages (those displayed in the status bar at the bottom of the main Browser window) are now logged to session files in ~/Library/Logs/NetWareClient/ (where ~ represents your home folder).
- Fixed a bug that would cause logout to fail if the browser was quit while there was still an active login. If this happened, the only way to logout would be to restart the machine.
- Added support for "NDS Aliases". NDS Aliases are files that can be double clicked in the Finder to mount a volume. See the User Guide for more information.
- Fixed a few other minor Browser bugs.
- Fixed an SLP bug that was crashing the browser when an unexpected packet was received.
- You can now Mount volumes listed in the Auto Mount list manually.
- The main window will now shake back and forth for a small amount of time if a login error occurs.
- The Mounts tab Remove button is now enabled even if you aren't logged in. It is only disabled if there are no mount point entries.
- The Browser's login window will now automatically be shown at launch time. This can be turned off in the Preferences panel.
- Minor UI cleanup.
- Fixed a bug that was causing mount failures for volumes with non-ascii characters in their name.
- Fixed a bug that was causing objects with non-ascii characters in their name to display with

the wrong name. If you tried to use such an object (e.g. to select a user id for login, or select a volume for mounting) the Browser would crash.

- Fixed a bug that caused the Preference panel's Save button to not be enabled when it should have been.

- Fixed a bug in the preferences that caused the default context (if set) to never be saved.

- The Preferences panel will no longer close when you click on the Save button. This allows you to make changes, save and then make more changes without having to re-open the panel. Also, the panel's close button is now enabled.

- Updated About Box credits.

1.1

Kernel

- Fixed a possible panic during volume unmount.

- Logical Volume support

- Folder permissions are now displayed correctly. (Previous versions always reported folder perms. as Read/Write/eXecute.)

- Sharing violation conflicts with Windows machines should be greatly reduced. All files are now opened shared Read Only by default (previous versions always opened shared R/W if possible) and files are closed with the server on a periodic basis. Windows clients may still get sharing violations, but those should go away within 40-80 seconds. (As long as the file is not open by an OS X application.) The main cause of conflict, is that the Windows client is very restrictive when writing a file; it wants exclusive write and exclusive read rights to the file.

User

- Fixed a text wrapping problem in the Browser's extended info. drawer.

- In the Browser Context dialog, you can now select context objects in addition to user objects.

- Fixed a problem that caused container list errors in the Browser. (We weren't following replica referrals, and we were sending a bad iteration handle to the server.)

- Fixed a problem with NDS browsing where containers that contained restricted objects would show up as empty.

- Fixed a Browser crash that could occur if an NDS or SLP server unexpectedly shutdown a connection.

- Fixed problems where the UI would not update when new SLP data was received.

- Fixed an SLP timeout bug that was causing SLP failures.

- Added new error descriptions for common NDS login errors.

- Fixed quite a few Browser memory leaks and buffer overruns that were causing crashes.

- Directory Agents (and Scopes) are now supported. DA use and SLP multicast are mutually exclusive.

- Added SLP server redundancy.

- The password change panel has been removed from the Preferences panel. This panel is now available from the main browser panel via the "Change Password..." button.

- If your password has expired (and you have grace logins left) the password change panel will automatically open.

- More informational error messages.

- Better handling of status/error messages. All messages should display for at least five seconds instead of being overwritten by other messages.

- Users are now automatically logged out of NDS when they log out of OS X (via the new User Mgr. daemon).

- The Browser window will no longer hide itself when you switch to another application.

- The Browse tab in the main Browser window is not available until a successful login occurs. This is also true for the "Change Password..." button.

1.0.4

-Fixed a serial number problem that caused valid numbers to fail verification.

1.0.3

- Fixed a network connection panic on Dual CPU machines.
- Fixed a panic that occurred when trying to rename a file to the same name but with a different case. e.g. "TEST.TXT" to "test.txt". The client now follows the behavior of the Windows client and silently ignores the new version of the filename.
- Fixed two other random panics that were very rare.
- The Browser will now notify you (via the Status text field) if your password has expired.
- Fixed problem with password expirations causing spurious login failures.
- Fixed another spurious login failure problem where the login actually succeeded, but the Browser did not recognize it.
- Files and folders with read only (R/O) access are now usable. Previously, R/O files and folders would not be displayed in the Finder.
- Dot files (anything beginning with ".") are now marked as HIDDEN when created. In addition to HIDDEN, Carbon compatibility files ("._") and Finder folder state files (".DS_Store") files are also marked as SYSTEM.
- Dropbox folders (CREATE or CREATE/WRITE) will now work from the Terminal. These folders do not work from the Finder do to a Finder (or Carbon) bug.
- Entering Tree by name, rather than IP, from the Login window works correctly.
- No longer displays OUs as tree names
- Files and folders with special characters will now be correctly displayed. There are still some special characters that can't be displayed. See "Other Problems" below.
- Manual mount can now mount volumes of the same name that reside on different servers.

1.0.2

- Browsing for volumes and user contexts are done separately. Select user login context from the "Login" window, and volumes from the "Browse" window.
- Tree icon indicates login connection. It will be green when logged in, and grey when logged out.
- Duplicate trees bug fixed.
- Volume names and their servers are now determined correctly.
- Some SLP bug fixes.
- NetWare Client Uninstall. This is an application that will remove all portions of the NetWare client (including itself). NetWare Client Uninstall will be installed in /Applications/Utilities.

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