Hotfix Control 1.1.3

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Purpose and usage

Hotfix Control is a maintenance tool for Windows NT users who want to keep track of what hotfixes are applied, and when they were applied. This information is found in the registry, and Hotfix Control gathers it along with the filenames which are affected into a list. The list of files replaced by the current Service Pack can also be shown. Any computer on the network that you have the sufficient rights to may be examined. You can also uninstall any hotfix from the local computer and open the Microsoft Knowledge Base article that is primarily associated with a hotfix.

Note: If you when you installed the hotfixes selected not to save the files that were replaced and make an uninstallation directory, the date of the application and the list of replaced files will not be available. This also happens if you move or rename the directories; they must reside in the `%systemroot%` directory.

If you have a relatively new version of COMCTL32.DLL you can use drag-and-drop to rearrange the columns of the

application's two listviews. See System requirements for more information.

Screenshot of the main window (14 kB GIF)
Screenshot of a detail window showing the files replaced by Sms-fix (8 kB GIF)

Installation

No special installation procedure is required, and a complete uninstallation only requires you to delete the program file, any documentation that came with it and the registry keys HKCU\Software\Magnus Bäck\Hotfix Control and HKLM\Software\Magnus Bäck\Hotfix Control.

If you prefer an automatic installation and eventually uninstallation, you may unzip the archive into any directory (preferably one used for temporary files), right-click on `hotfxctl.inf` and choose Install. This will install Hotfix Control in the directory `Hotfix Control` in the root of the volume containing your program files directory. To uninstall, delete the directory and the registry keys documented in Registry options and requirements.

Running on a Service Pack 4 system

When you start Hotfix Control on an NT installation with Service Pack 4 and previous hotfixes (post-SP3, post-SP2 -- whatever) applied, you will get be questioned about what you want to do about the pre-SP4 hotfixes. This is a per-machine setting.

Option	Description
Ignore all pre-SP4 hotfixes but leave backup files and registry entries intact.	Hotfix Control maintains a list with (hopefully) all IDs from hotfixes released before SP4. Choosing this option will prevent these from being displayed in the Hotfix Control window.
Delete the backup files and corresponding registry entries for the current pre-SP4 hotfixes.	All traces of the post-SP3 hotfixes will be erased **with no undo option.**. Specifically, the uninstallation directory of the hotfix (located under `%systemroot%`) and the information kept in the registry under HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Hotfix for pre-SP4 hotfixes will be deleted.
Ignore this alltogether. Don't ask me about this again.	All pre-SP4 hotfixes will be displayed just as earlier and their uninstallation information will be kept.

Clicking Cancel will do nothing and you will be asked the same question the next time Hotfix Control is started.

Command-line usage

To make automation easier, a command-line version is now included as HFIXCL.EXE. This can for example be used to automatically collect hotfix status for any number of computers via batch files. The information shown is normally identical to the main program, but you can choose to only display certain columns.

The following syntax is used:

HFXCL.EXE [\\<computer>] [Q][D][T][F] [/?]

<computer> selects which computer's installed hotfixes should be examined. If omitted, the local machine will be default. Q, D, T and F chooses what information to display -- Hotfix ID, Description, Date applied and Affected files, respectively. If none of those letters are given, all information is displayed. The columns are separated by tab characters (ASCII 9).

/? will display a brief help screen with syntax.

Known issues and upcoming features

These bugs and shortcomings are known but have not been resolved yet:

- If you have Service Pack 5 installed, you will not get a question about what to do with any previous hotfixes (like you would with SP4).
- It seems like there is a maximum length of columns in listviews, I suspect it's around 255 characters. The comma-delimited list of affected files will be truncated if there are to many files. This happens with the euro-fix. I have no workaround for this, but you can view the detailed list if you need all filenames.
- The history box is empty when you have selected a computer from the list, but not when you type it in manually.
- The command-line program sometimes do not display any hotfixes at all, even though the normal graphical application works without a glich with the same remote machines.

The following features are planned for future releases for Hotfix Control (apart from bug fixes for the problems mentioned above):

- An MDI interface which makes it possible to look at many computers at the same time.
- Add features to the command-line program so it is on the same level as the main graphical program.
- A reporting feature that can query the network and e.g. find all computers that does not have a certain hotfix.
- Printing of hotfix lists possible.
- Aliases for hotfixes. Most users are more comfortable with names like "tear-fix", "java-fix" or "pptp3-fix" and would prefer them instead (or in addition to) the Knowledge Base IDs. It would be a bit tricky to automatically find the names of the hotfixes, but a file with the to date released hotfixes and their names and the ability for the user to add new ones would perhaps be good enough.

System requirements

For full functionality, you need Windows NT 4.0. It may work under NT 3.5x too, but I have not had the opportunity to test it in that enviroment. The program apparently does not work with Windows 95/98 because of inability to connect to a remote Windows NT registry. Hotfix Control has not been tested with the beta release of Windows NT 2000. The application should however work fine, although pretty useless for use on a local Windows 2000 system since the hotfix system of today probably will change.

You must have 4.72.xxx or later of COMCTL32.DLL installed if you want to be able to rearrange the columns of the listviews. Hotfix Control should work just fine even if your version is older, but you will of course lose the new functionality. An updated COMCTL32.DLL can be obtained from Microsoft as 40COMUPD.EXE (500 kB, via HTTP or FTP).

Downloading

hotfxctl-1.1.3.zip (268 kB) from JPL Data, Sweden, by HTTP or FTP.

Previous releases

- hotfxctl-1.1.2.zip (Version 1.1.2, April 22 1999, 267 kB)
- hotfxctl-1.1.1.zip (Version 1.1.1, Jan 2 1999, 246 kB)
- hotfxctl-1.1.zip (Version 1.1, Oct 5 1998, 229 kB)

- hotfxctl-1.0.zip (Version 1.0, Aug 1 1998, 146 kB)

Revision history

1.1.3, May 26 1999

- Previously, if you sorted the main/detail list on either the Description or the Version/Files column, you would get the error message ("List index out of bounds"). This problem is fixed and the sorting should work fine.

1.1.2, April 22 1999

- A settings dialog for easy customization was added.
- Files replaced by the currently installed Service Pack may be viewed in the same manner as hotfix details.
- The release dates of the hotfixes (if available) are shown.
- The directory listings (hotfix details and Service Pack listings) are now cached. This will significantly improve performance. The cache is stored in the Hotfix Control settings key under HKEY_LOCAL_MACHINE (see Keys and values used for application settings).
- You may customize how file sizes are shown in the listings. For example, it might be desirable that larger files' sizes are shown in kilobytes or even megabytes.
- When saving to a file, you may choose among a couple of formats, or rather, methods to separate the columns.
- The columns of the main window's list of hotfixes were in the previous releases sometimes very narrow upon program startup. I do not think the problem is quite solved, but I have changed the default width to the width of the header which at least should minimize the effects if the problem does persist.
- The default registry search path for hotfixes is extended to include all potential Service Packs up to SP9. Already, there are hotfixes using the SP5 key (e.g. Q215367).
- The Explorer icons for the files in the directory listing may be shown.
- The statusbar now gives brief help on the currently selected menu item or the toolbar button over which the mouse is hovering (if applicable).
- When you saving the hotfix listing to a file, the column order will be the one displayed (you might have rearranged the columns) and not the original.
- The Fix Description value in the registry will be correctly read even if it is a REG_MULTI_SZ value, in which case the first string will be used.
- If a window is maximized when it's closed, this state will now persist the next time the window is opened. Previously, the window would appear restored, but resized to fit the whole screen.
- In the Save As dialog, you will need to confirm before an existing file is overwritten.

1.1.1, Jan 2 1999

- Fully supports post-SP4 hotfixes and can optionally ignore or delete all pre-SP4 hotfixes.
- The Esc key can be used to close a hotfix detail window.
- A toolbar button for the File | Save As command was added.
- Many new registry options for customizing the application. You can now, among other things, choose you own time format or go to some other site than support.microsoft.com or open a local file when you choose File | Open KB Article.
- Full documentation of all registry options and what registry keys the application needs to read was added.

- The type of the registry values for the statusbar and the toolbar was changed from SZ (i.e. string) to DWORD. Old values will automatically be converted to the new type.
- Some settings are now set per-machine, though most remain per-user.

1.1, Oct 5 1998

- Support for checking remote computers on the network.
- Command-line version introduced.
- Added a detail view for a hotfix containing additional information about each file that was replaced.
- Added command for saving the table to a file.
- Added a toolbar and commands for turning it and the statusbar on and off.
- Window positions and columns sizes stored in the registry.
- The statusbar previously did not have any information on Service pack level with SP1 (and perhaps SP2) installed. It will now say "Pre-SP3".

1.0, Aug 1 1998

Initial release.

Registry options and requirements

Keys and values used for application settings

Many of the customizations you can do to Hotfix Control are only available through direct modification of the system registry. A dialog that encapsulates most of these options will probably be added in the next release.

Per-user settings an alphabetical order, base key HKCU\Software\Magnus Bäck\Hotfix Control:

Key/value	Type	Description	Default
Byte threshold	SZ	Describes the threshold where bytes are displayed as kilobytes in the detail window file listing. For this to have any effect, *Display kilobytes* must be true.	10240

Column separation	DWORD	An integer describing what column separation should be used when saving a hotfix listing to a file (0=tabs, 1=spaces, 2=semicolon, 3=comma).	0
Display kilobytes	DWORD	A boolean (0=false, 1=true) describing whether file sizes in the detail window larger than *Byte threshold* bytes should be displayed as kilobytes instead.	0
Display megabytes	DWORD	A boolean (0=false, 1=true) describing whether file sizes in the detail window larger than *Kilobyte threshold* bytes should be displayed as megabytes instead.	0
File extensions scanned for versioninfo	SZ	A comma-delimited list with file extensions (no periods) that can contain version information. When scanning a directory, the file will never be scanned if the extension in not in this list.	exe,dll,sys,cpl,com

Idle priority when scanning directories	DWORD	A boolean (0=false, 1=true) describing whether the priority of the process should be temporarily lowered to idle execution only the sometimes lengthy directory scanning takes places. Enabling this should make it easier to put Hotfix Control in the background, but the process is likely to take longer time.	0
Height	SZ	An integer containing the height of the main window.	300
Kilobyte threshold	SZ	Describes the threshold (in kilobytes) where bytes or kilobytes are displayed as megabytes in the detail window file listing. For this to have any effect, *Display megabytes* must be true.	8192
Left	SZ	An integer containing the x-coordinate (left-most point) of the main window.	100
Maximized	DWORD	A boolean (0=false, 1=true) describing whether the main window should be maximized on the next startup.	0

Open KB article command	SZ	A string containing the command-line that should be executed when the user chooses the Open KB Article command. Three %s sequences are used to insert the Knowledge Base ID number; the first encounter inserts the three first digits, the second inserts the third digit and the third %s inserts the last two digits. Any string that can be passed to ShellExecute() is acceptable.	http://support.microsoft.com/support/kb/articles/q%s/%s/%s.asp
Save As directory	SZ	A string containing the default directory when saving a hotfix listing to a file with the Save As command.	The directory where `hotfxctl.exe` is located.
Show detail window icons	DWORD	A boolean (0=false, 1=true) describing whether icons are to be shown in the detail window file listing. The icon is the same that will be shown in the Explorer. Turning this feature on will degrade directory scanning performance somewhat.	1

Statusbar	DWORD	A boolean (0=false, 1=true) describing whether the statusbar should be displayed.	1
Text if unknown value	SZ	Tells Hotfix Control what text that should be used if some value is missing for an item in a listview. This can happen if an uninstallation directory is missing or if version information is missing for a file in the detail view.	(unknown)
Time format	SZ	Tells what time format should be used for the time stamp in the main window listview and in the command-line version of Hotfix Control. See separate table for information on how time format strings are built up.	Default system locale for short date/time display.
Toolbar	DWORD	A boolean (0=false, 1=true) describing whether the toolbar should be displayed.	1
Top	SZ	An integer containing the y-coordinate (top-most point) of the main window.	100

Use caching for directory listings	DWORD	A boolean (0=false, 1=true) describing whether caching of the directory listings (hotfix and Service Pack files) should be used. Settings this to true will speed up the processing, especially with many files. If the file time stamp or size has changed since last time the directory was scanned, the cache will automatically be updated.	1
Width	SZ	An integer containing the width of the main window.	500
Columns\Order	SZ	Comma-separated list of the column order of the main window listview. Starts at zero and starts from the left. See System requirements for more information on rearranging columns.	
Columns\Sizes	SZ	Comma-separated list of the column sizes (in pixels) of the main window listview.	

Computer history\Maximum size	SZ	The limit of how many computers that are saved in the history of the combobox in the toolbar. This controls how many entries are stored under this key.	20
Computer history\<any number>	SZ	Zero-based sequential list with computer names (not fully-qualified UNCs) that should be displayed in the computer history combobox. These value must be less than the *Maximum size* value to be useful.	
Details\Time format	SZ	Tells what time format should be used for the time stamp in the detail windows' listview. See separate table for information on how time format strings are built up.	Default system locale for short date/time display.
Details\Top	SZ	An integer containing the y-coordinate (top-most point) of all created detail windows.	100
Details\Width	SZ	An integer containing the width of all created detail windows.	500

Details\Height	SZ	An integer containing the height of all created detail windows.	300
Details\Left	SZ	An integer containing the x-coordinate (left-most point) of all created detail windows.	100
Details\Columns\Order	SZ	Comma-separated list of the column order of the details windows' listview. Starts at zero and starts from the left. See System requirements for more information on rearranging columns.	
Details\Columns\Sizes	SZ	Comma-separated list of the column sizes (in pixels) of the details windows' listview.	
Details\Sort\Ascending	SZ	Boolean value (0=false, 1=true) specifying if the sorting of the items in the detail windows should be ascending. If false, the sorting is descending.	1
Details\Sort\SortCol	SZ	Integer specifying on which column (zero-based index) the sorting of the items in the detail windows is done.	0

Sort\Ascending	SZ	Boolean value (0=false, 1=true) specifying if the sorting of the items in the main window should be ascending. If false, the sorting is descending.	1
Sort\SortCol	SZ	Integer specifying on which column (zero-based index) the sorting of the items in the main window is done.	0

Per-machine settings, base key HKLM\SOFTWARE\Magnus Bäck\Hotfix Control:

Key/value	Type	Description	Default
Don't ask about SP4	DWORD	Boolean value (0=false, 1=true) indicating whether the "what to do about pre-SP4 hotfixes" dialog has been shown and should not be shown again (i.e. the user pressed Ok last time he got the question).	0
Hotfix search path	SZ	Comma-delimited list with registry paths that should be searched for hotfixes. All paths are assumed relative to the root of HKLM.	\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Hotfix, \SOFTWARE\Microsoft\Windows NT\CurrentVersion\SP4\Hotfix, \SOFTWARE\Microsoft\Windows NT\CurrentVersion\SP5\Hotfix, \SOFTWARE\Microsoft\Windows NT\CurrentVersion\SP6\Hotfix, \SOFTWARE\Microsoft\Windows NT\CurrentVersion\SP7\Hotfix, \SOFTWARE\Microsoft\Windows NT\CurrentVersion\SP8\Hotfix, \SOFTWARE\Microsoft\Windows NT\CurrentVersion\SP9\Hotfix
Hotfixes to ignore	SZ	A list of hotfixes that should be ignored and not displayed in the list. Use this for pre-SP4 hotfixes that aren't ignored automatically or whatever use you may find.	

Ignore pre-SP4 hotfixes	DWORD	Boolean value (0=false, 1=true) indicating whether pre-SP4 hotfixes should be ignored.	0
Cache\<ID>	MULTI_SZ	Each value contains information about the files in the uninstall directory for the hotfix with that ID. The ID for the currently installed Service Pack is, not surprisingly "Service Pack". Every file occupies five lines in the value. The lines contain, in order, the filename, time stamp, size (in bytes), version and description. If the version or description is not available, a hyphen will be used instead. The time stamp is a floating-point number with the integer part specifying the number of days since December 30 1899 and the fractional part the time of the day. A fractional part of 0 means midnight, .5 is noon and so on.	None.

The table below describes the special charaters you can use when specifiying time formats:

String	Meaning
c	Displays date in short format and time in long format according to the selected system locale.
d	Day as a number without a leading zero (1-31).
dd	Day as a number with a leading zero (01-31).
ddd	Day as an abbreviation (Sun-Sat).
dddd	Day as a string (Sunday-Saturday).
ddddd	Date in short format according to the selected system locale.
dddddd	Date in long format according to the selected system locale.
m	Month as a number without a leading zero (1-12).
mm	Month as a number with a leading zero (01-12).
mmm	Month as a abbreviation (Jan-Dec).
mmmm	Month as a abbreviation (January-December).
yy	Year as a two-digit number (00-99).
yyyy	Year as a four-digit number (0000-9999).
h	Hour without a leading zero (0-23).
hh	Hour with a leading zero (01-23).
n	Minute without a leading zero (0-59).

nn	Minute with a leading zero (00-59).
s	Seconds without a leading zero (0-59).
ss	Seconds with a leading zero (00-59).
t	Time in short format according to the selected system locale.
tt	Time in long format according to the selected system locale.
am/pm	Use the 12-hour clock for the preceding *h* or *hh* specifier and displays am/pm accordingly. Attention to case is paid.
a/p	Use the 12-hour clock for the preceding *h* or *hh* specifier and displays a/p accordingly. Attention to case is paid.
/	Date separator of the current system locale.
:	Time separator of the current system locale.
'xx'/"xx"	Characters enclosed in single or double quotes are interpreted literally.

Permission requirements

In addition to the obvious need to be able to read and create the registry keys for the settings in the previous section, the following permissions are required:

Resource	Required permissions
HKCU\Software	Create key
HKLM\SOFTWARE	Create key
HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion	Query value
All registry keys in the search path	Enumerate subkeys and query value permission for the key and all subkeys.
%systemroot%\$NtUninstall<ID>$	List files, read attributes and read data
ADMIN$\$NtUninstall<ID>$ on any remote computer	Connect, list files, read attributes and read data

Of course, if you change the registry search paths that should be checked for hotfixes the permissions must be update accordingly.

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- Joe Coolidge, for making me aware of the sorting problem resolved in v1.1.3.

Quotes from users and magazines

Hotfix Control v1.1 was reviewed in the Lockergnome e-zine last fall. "Windows NT users: listen up! Do you need to keep track of which hotfixes are applied, and when they were applied to a system? The information is already there, although not readily accessible. This program gathers that information (along with the filenames which are affected) into a list, and let's you view it quickly & easily."

ZDNet's software archive www.hotfiles.com gave Hotfix Control v1.1.1 a 5 star rating in their review. The only listed con with the program was the lack of Service Pack information, but that was taken care of with the release of v1.1.2.

The German computer magazine PC Professionell ran an article about NT utilities in their March 1999 issue, in which they reviewed Hotfix Control as well as another tool of mine, fowner.

"Man! The Upgrade to 1.1 is awesome!!!!! Thanks a ton. You're the man! I love the new interface and the ability to see other computers. WoWZeRs!" -- Josh Straub

The newsletter The Naked PC mentioned it in the April 15, 1999 issue.

Mailinglist for announcements

A mailinglist for Hotfix Control has been set up. The list is one-way and will be used for announcements of new releases (including betas, with which I can need some help). If your browser does not support forms you can manually send a message containing "subscribe hotfxctl-announce" to majordomo@jpl.nu.

E-mail: Submit

License and distribution

Hotfix Control is freeware and is licensed for any use; private, military, commercial or governmental. It may be used on any number of computers at once. It may also be freely distributed on any electronic media, provided no change is made to the archive. If you upload it to an FTP or WWW site or some other service, such as a BBS (which I do encourage), I would appreciate if you would drop me a line.

The author, Magnus Bäck, takes no responsibilty whatsoever for what might happen to your system if you install and uninstall a hotfix or Service Pack or what might happen when you use Hotfix Control.

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