# MarvelClient Upgrade

Reference / Cheat Sheet

2024-07-07

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# Additions and Updates since 2022-07-29 (= since MCUpgrade Release 12.0.27)

| Change | Option/Entry or Switch or Placeholder | Remark(s) / Available since |
|---|---|---|
| NEW | ProgressbarHideInit | 12.0.27 |
| NEW | /citrix and /vdi | 12.0.28 |
| NEW | StartupLinkMode | 12.0.37 |
| NEW | network: prefix option for NotesDataDirectoryOldExclude entries | 12.0.37 |
| Removed | CheckFileHandles | 12.0.42 |
| NEW | WinVerifyTrustDefaultFlags, defaults to 1, set to 0 to not check for lapsed certificates (which are still perfectly valid) | 12.0.46 |
| NEW | GrantUsersAccess<br>When running as SYSTEM, MCUpgrade grants 'Users' read+execute access to the upgrade directory. Also, 'Users' are granted generic write access to any .log files created. This can be disabled by setting ini:GrantUsersAccess=0 | 14.0.5 |
| CHANGE | DeferralPrompt<br>Can now also be set to 3 or 4 (3 is actually somewhat silly)<br>When set to 4, DeferralPrompt is also enforced with Initiator | 14.1.1 |
| NEW | /diff | 14.2.0 |
| NEW | /instsvc and /instsvc_ow | 14.2.0 |
| NEW | NotesWorkspaceDirectoryOldSmartCleanup<br>Set to 1 to enable cleanup of workspace folders .metadata (similar to roaming backup filter), and deletion of .config, .configbak, and logs | 14.2.3 |

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# List of MCUpgrade.exe command line options

MCUpgrade.exe “Path\MCUpgrade.ini” [/ignoredeferralfilemustexist]
MCUpgrade.exe /option parameter(s) [/ignoredeferralfilemustexist]
MCUpgrade.exe /option [“Path\MCUpgrade.ini”] [/ignoredeferralfilemustexist]

Green highlighted rows are best configurable/configured using the MarvelClient Upgrade Configuration Wizard in the MarvelClient Config database.

| Option | Description | Remarks |
|---|---|---|
| **/pbar** | Launches the Progress Bar | Automatically done by MCUpgrade.exe |
| **/pbartest** | Launches the Progress Bar and sets labels and progress as if an upgrade was in progress – useful for testing custom splash screens | |
| **/unzip** | Performs all UnzipArchive### instructions from MCUpgrade.ini silently | Not allowed when running as SYSTEM |
| **/unzipui** | Performs all UnzipArchive### instructions from MCUpgrade.ini with Progress Bar visualization | Not allowed when running as SYSTEM |
| **/unzipselected** parameter(s) | Executes all parameters following “/unzipselected “ as command line for 7-zip silently - Example: MCUpgrade.exe /unzipselected x -aoa MyFiles.7z | Not allowed when running as SYSTEM |
| **/smpttest** | Sends an SMTP Test email according to SMTP settings in MCUpgrade.ini | Used to test SMTP configuration<br>Requires MCUpgrade.mcu file |
| **/smtpinfo** | Sends an SMTP Info email according to SMTP settings in MCUpgrade.ini | Used to update MC Analyze with progress tracking information |
| **/sha** parameter | Calculates a SHA-256 hash in SHA.txt for the file passed as parameter – Example: MCUpgrade /sha FilenameOrPath.Ext | |
| **/shutdown** | Runs MCShutdown functionality (not executable) similar to /shutdown, honoring MCUpgrade.ini and multi-language support | Automatically done by MCUpgrade.exe<br>Not allowed when running as SYSTEM |
| **/shutdownsilent** | Runs MCShutdown functionality (not executable) similar to /shutdownsilent, honoring MCUpgrade.ini & multi-language support | Automatically done by MCUpgrade.exe<br>Not allowed when running as SYSTEM |
| **/ignoredeferralfilemustexist** | Suppresses DeferralFileMustExist check and Deferral Prompt | Special option for ReRun |
| **/citrix or /vdi** | Use either to prevent removing CITRIX=1 from install instructions | Only relevant with Coptim=2 |

# List of MCUpgrade.ini entries

## General

| Entry | Default | Description | Remarks |
|---|---|---|---|
| UpgradeDirectory | MCUpgrade.exe folder | Folder in / under which all Upgrade files are stored | Used to resolve %MC_UPGRADEDIRECTORY% |
| UpgradeDirectoryAuto | 1 | Set to 0 to disable automatic initialization of UpgradeDir before elevation attempt via MCUpgrade service | If empty and RunAsService=1\|2, UpgradeDirectory is automatically initialized to MCUpgrade.exe folder |
| Logfile | %MC_UPGRADEDIRECTORY%\ MCUpgrade.log MCUpgradeSMTPInfo.log MCUpgradeSMTPTest.log | Location and filename of MCUpgrade.log file | |
| UpgradePackageName | Unique hash of all Exec* names and values; initialized only once | Used to identify an Upgrade in MC Analyze / via SMTP Progress mails | Initialized only once and if not set; MUST NOT contain any of the following characters: \ / : * ? " < > \| |
| UpgradeLanguage | not set; automatically set to Windows Language if not set since MCUpgrade 12.0.16 | Used to control lookup of multi-language strings from MCUpgrade_ [UpgradeLanguage].ini | Falls back to English/strings in MCUpgrade.ini if lookup file does not exist. (Lookup files have different entries than MCUpgrade.ini!) |
| SURunAsResetLogOnFirstRun | 1 | Reset log on first run of MCUpgrade.exe | First run comparable to double-clicking. MCUpgrade.exe might re-run itself, then not resetting log |
| UpgradeResetLogOnEachRun | 0 | Reset log on MCUpgradeMain run | Do not set |
| LicenseFilepath | not set | Optional additional full filepath of license.xml to check | |

## Pre-Upgrade / Upgrade Requirements

| Entry | Default | Description | Remarks |
|---|---|---|---|
| ExitProcess### | not set | If any of the processes are running, exit upgrade | |
| ExitProcessMaxRuntimeMinutes### | not set | Only exit upgrade if the runtime of the corresponding ExitProcess### has not exceeded the number of maximum minutes | i.e. exit only if a process been running for less than 30 minutes;<br>adding a corresponding KillProcess### is highly recommended;<br>A possible use case is when other processes should be finished within 30 minutes, like other software deployment solutions |
| DeferralFileMustExist### | not set | Run upgrade only if the file(s) exist | |
| DeferralAdminMustExist | 0 | Run upgrade only if at least one of the usernames in mcu file is a direct member of the local administrators group | |
| ExitOnOtherInstallationInProgress | 120 | Waits the specified number of seconds in case another Windows installation is already in progress | Set to 0 to disable<br>Other then ExitProcess###, this does not check for a running process like msiexec, for example, but queries the Global_MSIExecute mutex (see MSDN for details) |
| PackageAlreadyInstalledCheck | not set | See Initiator | |
| UpgradeIniMinLines | 15 | Minimum number of entries in MCUpgrade section | If MCUpgrade.ini does not exist, does not contain an MCUpgrade section, or has less than the specified number of entries, upgrade will exit |
| UpgradeIniMinLines | 15 | If MCUpgrade.ini has no [MCUpgrade] lines, or less than the specified number, upgrade will exit | |

## Initiator

| Entry | Default | Description | Remarks |
|---|---|---|---|
| SourceDirectoryInit | not set | File or web source to download upgrade files from | e.g., N:\... or \\unc\... or http(s)://... or ftp(s)://...<br>NOTE: Resume is *not* supported for https:// |
| SourceDirectoryInitSourceURL### | not set | Source filename(s) to download from above source | e.g., Notes_11_0_1_Win_English.exe |
| SourceDirectoryInitFileResume | 0 | En/disable file copy resume | Set to 1 to enable file copy pause & resume |
| Registry:<br>HKLM\SOFTWARE\<br>panagenda\MarvelClient\Upgrade\<br>SourceDirectoryInit | not set | File or web source to download upgrade files from (MCUpgrade.ini wins!) | See SourceDirectoryInit above |
| SourceDirectoryInitLocalFallback | 1 | Enable local fallback in case SourceDirectoryInit is not reachable | Set to 0 to disable |
| HKLM\SOFTWARE\<br>panagenda\MarvelClient\Upgrade\<br>SourceDirectoryInitLocalFallback | not set | See SourceDirectoryInitLocalFallback above<br>(MCUpgrade.ini wins!) | See SourceDirectoryInitLocalFallback above |
| SourceDirectoryInitRepeat | not set | If set to 1 (=enabled), allows to repeat a previously successful installation | By default, successful installations carried out via MarvelClient Upgrade Initiator cannot be repeated<br>As an alternative to setting this option in MCUpgrade.ini, you can also place a file MCURepeat.txt into the first directory where MCUpgrade is executed, or into %PUBLIC% |
| PackageAlreadyInstalledCheck | not set | Set to 1 to also check for whether a package has already been installed when launching MCUpgrade with zip (without MCUpgrade.ini and without SourceDirectoryInit set in zip) | Successful upgrades are memorized in HKEY_LOCAL_MACHINE\SOFTWARE\<br>panagenda\MarvelClient\Upgrade\<br>SuccessfulUpgrades |

## Initiator Web Source

| Entry | Default | Description | Remarks |
|---|---|---|---|
| CURLMOPT_MAX_TOTAL_CONNECTIONS | 0 = no limit | | |
| CURLOPT_SSL_VERIFYPEER | 0 = disabled | If set to 1, verifies SSL connections | When enabling this option, you must provide a .pem file (see CURLOPT_CAINFO below) |
| CURLOPT_SSL_VERIFYHOST | not set = 2 | Verifies the host when using SSL connections with VERIFYPEER | It is recommended to *not* disable this option |
| CURLOPT_CAINFO | not set | Filename of .pem file with CA certificate chain | It is recommended to use a filename instead of a full filepath |

## Shortcut Creation

| Entry | Default | Description | Remarks |
|---|---|---|---|
| ShortcutCreateOnly | not set | 1 = shortcut creation with info message and option to start the upgrade immediately, see ini_language: ShortcutCreateOnlyQuestion<br>2 = shortcut creation with info message, see ini_language: ShortcutCreateOnlyMessage<br>3 = silent shortcut creation | By default, a Shortcut is only created for failed upgrades |
| ShortcutCreateOnlyQuestion | A new Notes Client upgrade is ready for you!@LF@Do you want to upgrade now?@LF@If you select "No", you can run it later with a double-click on the link named "%ReRunShortCutName%" on your Windows Desktop. | Used if ShortcutCreateOnly=1 | |
| ShortcutCreateOnlyMessage | A new Notes Client upgrade is ready for you!@LF@To run it, please double-click on the link named "%ReRunShortCutName%" on your Windows Desktop. | Used if ShortcutCreateOnly=2 | |
| StartupLinkMode | not set | set to 1 to "recreate" any Notes startup links deleted during shortcut removal, set to 2 to create a common startup link in any case | |

## Deferral

| Entry | Default | Description | Remarks |
|---|---|---|---|
| DeferralPrompt | 0 | Set to 1 to ask users once a day whether they want to defer an upgrade according to Deferral*<br>2 = always ask<br>3 & 4 = same as 1 & 2, but also ask when running with Initiator | Ignored when running as SYSTEM; also suppressed if NotesDatadirectoryOld and NotesProgramDirectoryOld are not set, which is when an initial client installation is assumed (no existing client installed yet), or other software is being installed |
| DeferralPromptAutoSuppress | 1 | Set to 0 to disable auto-supressing of DeferralPrompt | |
| DeferralPromptTitle | Update | | |
| DeferralPromptMessage | See remarks | Respectively the corresponding Message in language file | English: Do you want to upgrade your client experience?@LF@You have %DAYSLEFT% days / %PROMPTSLEFT% times left to choose ""No"" before the upgrade will be performed automatically. |
| DeferralNumberOfDaysMax | 0 (no limit) | Maximum number of days a user is allowed to defer | |
| DeferralNumberOfUpdatePrompts Max | 0 (no limit) | Maximum number of prompts a user is allowed to defer | |
| DeferralNumberOfUpdatePrompts MaxShortcut | 0 (on first deferral) | Number of deferrals after which a shortcut is to be created on the Windows desktop for on demand re-run | Set to -1 to disable shortcut creation |
| DeferralNumberOfUpdatePrompts MaxShortcutTitle | Run Notes Client Upgrade | Title of Shortcut when created after exceeding above number | |
| DeferralPromptIfLaunchedDirectly | 1 | Display deferral prompt when launching MCUpgrade directly | Set to 0 to not display deferral prompt on direct launch from Win Explorer/Desktop |

## Deferral - Email

| Entry | Default | Description | Remarks |
|---|---|---|---|
| DeferralNumberOfUpdatePromptsMaxEmail | 0 | Number of deferrals until alert emails are sent for each deferral to monitor continued deferral | |
| DeferralNumberOfUpdatePromptsMaxEmailSMTPToAddress | not set | Email address to send deferral alerts to | SMTP auth → mcu file |
| DeferralNumberOfUpdatePromptsMaxEmailSubject | PMCU: User deferred upgrade | Subject of deferral alert email | |
| DeferralNumberOfUpdatePromptsMaxEmailBody | Number of deferrals by user [%USERNAME%] on [%COMPUTERNAME%]: %PROMPTS%/%PROMPTSMAX%. | Body of deferral alert email | |
| DeferralNumberOfUpdatePromptsMaxEmailBodyCont | Upgrade is no longer deferred for user [%USERNAME%] on [%COMPUTERNAME%]. | Body of deferral alert email, if user chose to no longer defer | |

## Graceful Shutdown

| Entry | Default | Description | Remarks |
|---|---|---|---|
| GracefulShutdown | 1 | If set to 1, attempts to gracefully shutdown the Notes client if it is running | |
| GracefulShutdownRetryAllowCancel | 0 | Number of GracefulShutdown attempts after which to also display a Cancel button in the shutdown dialog | |
| GracefulShutdownCancelMessage | If you click Cancel, the upgrade will be postponed for another hour. | Message to add to shutdown dialog if the Cancel button is displayed, too | |
| GracefulShutdownFinishedExec | not set | Executable to launch at end of successful shutdown | MCShutdown only |
| GracefulShutdownNoticeTitle | not set | Title of optional “Notice Dialog” | |
| GracefulShutdownNoticeMessage | not set | Message of optional “Notice Dialog” | |
| GracefulShutdownNoticeTimeout | 60 | Number of seconds to wait between client shutdown attempts | |
| GracefulShutdownRetryTitle | Notes Client Upgrade - Retry | Title of “Retry Dialog” | |
| GracefulShutdownRetryMessage | Notes appears to be locked or you have unsaved documents. @LF@ Please close any open dialogs and unsaved documents. Click OK when finished. | Message of “Retry Dialog” | |
| GracefulShutdownRetryLimit | 50 | Number of maximum retries | |
| GracefulShutdownRetryTimeout | 30 | Number of Seconds between retries | |
| ShutdownProcess### | not set | Optional process(es) to kill at end of successful shutdown | MCShutdown only; → KillProcess |
| ShutdownProcessWaitTime | 120 | Time to wait before starting to kill processes | |
| GracefulShutdownSilent | not set | Set to 1 to auto-answer all messagebox with “No”/”Discard”/”ESC(ape)”/”Exit etc. | Not recommended, unsaved data is lost |
| GracefulShutdown NoWindowsButProcessesTimeout | 60 | MCUpgrade will terminate processes if no windows are left, or the same window without buttons appears more than once, for the specified number of seconds | |

## Network Drives

| Entry | Default | Description | Remarks |
|---|---|---|---|
| DeltaCopyNotesDataIfOnNWDrive | 0 (1 via Upgrade Config Wizard) | If old Notes data directory is on a network drive, copy it to new notes data directory using built-in delta copy | missing/changed only |
| DeleteNotesDataDirectoryOld IfOnNWDrive | 0 | If set to 1, deletes old Notes data directory after elevation, if accessible/remapped | |
| DeltaCopyDeleteSourceAfterCopy | 0 | Set to 1 to delete files after successful delta copy | |
| RestoreNetworkDriveMappings | 0 | Set to 1 to remap network drives after elevation | Forced to 0 when running as SYSTEM |
| RestoreNetworkDriveMappings Option | 0 | 0=permutated restore (mcu)<br>1=restore as elevated user only<br>2=net use permutated (mcu)<br>3=net use elevated user | |
| NetworkDriveMapping### | not set; set by MCUpgrade.exe | Used to memorize mapped network drives before elevation | Do not set |

## Progress Bar

| Entry | Default | Description |
|---|---|---|
| ProgressBarTitle | Notes Client Upgrade | Text to display on taskbar icon hover |
| ProgressBarText | Upgrade in progress - please wait ... | Text to display above the two progress bars and labels |
| ProgressBarTextColor | not set | Set to RRGGBB (Hex) to specifiy color of progress bar text, e.g. FFD900 |
| ProgressBar1StaticText | not set | Used to display a static label above the first progress bar |
| ProgressBar2StaticText | not set | Used to display a static label above the second progress bar |
| ProgressBarAnimatedGIF | panagenda_Splash2.gif\|321\|129 | Used to display any additional animated GIF on top of the progress bar image<br>Format is: filename.gif\|X-Offset\|Y-Offset |
| ProgressbarHideInit | not set | If set to 1, hides the splash screen upon start of upgrade; the splash screen can still be displayed by double clicking on the tray icon then |

## Elevation

| Entry | Default | Description | Remarks |
|---|---|---|---|
| RunAsService | 0 | 0 = no<br>1 = if possible<br>2 = exclusively | When setting RunAsService to 2, we recommend to enable the corresponding setting in your keyfile |
| Keyfile | MCUpgrade.mcu | Filename of mcu file | |
| PermutatedLogon | 1 | Used to control whether multiple Usernames, Passwords and Domains in mcu file are supposed to be permutated or not<br>1:<br>U1P1D1,U1P1D2,U1P2D1,U1P2D2,...<br>0:<br>U1P1D1,U1P1D2,U2P2D1,U2P2D2,...<br>-1:<br>U1P1D1,U2P2D2,... | If the number of usernames, passwords and domains does not match, permutation is enforced<br>1=default=for each user try all domains and within each domain try all passwords<br>0=for each user try all domains; requires same number of usernames and passwords!<br>-1=try each user, password and domain once; requires same number of usernames, passwords and domains! |
| LogonDomains<br>(default value see next column since 12.0.20; previously not set!) | @LogonDomain\|<br>@LogonDNSDomain\|<br>@ComputerName\|<br>@ComputerDomain | Set to only attempt switch to those domains which match .mcu keyfile entries | Set to 0 to disable = not filter mcu keyfile entries |
| DisableLocalAdminFallBack | 0 (1 via Upgrade Config Wizard) | If set to 0 and elevation fails and end user is local admin, upgrade will be attempted as end user | |
| DisableLocalAdmin | 0 (1 via Upgrade Config Wizard) | If set to 0 and user is local admin, then upgrade will be attempted without elevation(!) | |
| DeferralAdminMustExist | 0 | Run upgrade only if at least one of the usernames in mcu file is a direct | |

| | | | |
|---|---|---|---|
| | | member of the local administrators group | |

## Elevation – Run Programs before or after elevation

| Entry | Default | Description | Remarks |
|---|---|---|---|
| SuRunAsExec### | not set | Run program(s) before elevation | |
| SunRunAsExecParams### | not set | Run program(s) before elevation with these parameters | Requires SuRunAsExec### |
| SuRunAsExecCMD### | 0 | Set to 1 to not encapsulate SuRunAsExec and SuRunAsExecParam strings in "..." if missing | Requires SuRunAsExec### |
| SuRunAsExecShow### | 0 | Set to 1 to run program visible | |
| SuRunAsExecWait### | 1 | Set to 0 to not wait for program | |
| SuRunAsExecFinished...###<br>SuRunAsExecFailed...### | Same as for SuRunAsExec | ... but for successful and failed elevation | |

## SMTP

| Entry | Default | Description | Remarks |
|---|---|---|---|
| SMTPServerDNSName | not set | | SMTP auth → mcu file |
| SMTPFromName | %USERNAME% on %COMPUTERNAME% | | SMTP auth → mcu file |
| SMTPFromAddress | %USERNAME% | | SMTP auth → mcu file |
| SMTPToAddress | not set | | SMTP auth → mcu file |
| SMTPUseSSL | 0 | | SMTP auth → mcu file |
| SMTPPort | 465 if not set and UseSSL=1<br>25 if not set and UseSSL=0 | | SMTP auth → mcu file |
| SMTPAttachFilename### | not set; set by MCUpgrade.exe | Used to memorize files to attach to upgrade result email | Do not set |
| SMTPAttachFileNamesOnErrorOnly | 0 | Set to 1 to only attach files to upgrade result email if upgrade fails | |
| SMTPAttachLogAsZip | not set | Set to 1 to attach MCUpgrade.log in zipped format | |
| SMTPProgressTracking | 0 | Set to 1, if SMTP emails should be sent for 1, 50, 75 and 99% progress (in addition to final email) | |
| SMTPProgressTrackingMinEmailSize | 0 | Set to 1 to reduce progress tracking email size | |
| SMTPMailSent | not set; set by MCUpgrade.exe | Used to memorize sending of final Upgrade email | Do not set |

## Operating System Environment Variables

| Entry | Default | Description | Remarks |
|---|---|---|---|
| SetEnvName### | not set | Environment variables to set after elevation | |
| SetEnvValue### | not set | Environment variable values to set after elevation | |
| SetEnvOption### | not set | Set to %MCU_Merge% or %MCU_Unmerge% to merge/unmerge value. Optionally suffix separator (defaults to semicolon ; if not suiffixed). | |

## Disallow Run

| Entry | Default | Description | Remarks |
|---|---|---|---|
| DisallowRun### | not set | Filenames to prevent from running during an upgrade, e.g. notes.exe | |

## Remove Shortcuts

| Entry | Default | Description | Remarks |
|---|---|---|---|
| RemoveShortCutsOnStart### | not set | Shortcut target filenames to remove from Windows desktop | Regular Expression |
| RemoveShortCutsAlsoInDirectory### | not set | Additional directories to process for shortcut removal | |

## Stop Services, Kill Processes

| Entry | Default | Description | Remarks |
|---|---|---|---|
| StopService### | not set | Service(s) to stop before upgrade | |
| KillProcess### | not set | Process(es) to kill before upgrade | |
| KillProcessWaitTime | 1 | Time to wait before starting to kill processes | |

## Data Migration – Notes Data and Program

| Entry | Default | Description | Remarks |
|---|---|---|---|
| NotesDataDirectoryOld | not set | Data directory of existing Notes client | Trailing backslashes are automatically removed |
| NotesDataDirectoryNew | not set | Data directory of target Notes client | Trailing backslashes are automatically removed |
| SkipNotesDataDirectoryMigration | 0 | Set to 1 as to not move old data directory to new location (if applicable) | |
| NotesDataDirectoryOldExclude | not set<br>Example:<br>*.ntf\|*.log\|as_*.nsf | Used to exclude files when moving/copying files from old to new Notes data directory | |
| NotesDataDirectoryOldExclude RegExp | 0 | Set to 1 to treat NotesDataDirectoryOldExclude as regular expression | |
| NotesDataDirectoryOldExclude Action | DELETE | Set to SKIP if excluded files during Data directory migration should be left behind | |
| NotesProgramDirectoryOld | not set | Program directory of existing Notes client | |
| NotesProgramDirectoryNew | not set | Program directory of target Notes client | |
| SkipNotesProgramDirectoryMigration | 0 | Set to 1 as to not move old program directory to new location (if applicable) | |
| NotesProgramDirectoryOldCopy | mc.dll\|pmc.dll | List of files to copy from old program directory prior to uninstall | |
| NotesProgramDirectoryOldCopy RegExp | 0 | Set to 1 to treat NotesProgramDirectoryOldCopy as regular expression | |
| DetectNotesClientFolders | 1 | Set to 0 to disable automatic detection of old Notes Client folders | |
| DetectNotesClientFoldersNewest | 1 | Set to 0 to disable detection of newest data folder in case multiple are found | Requires DetectNotesClientFolders=1 |

## Data Migration – primary notes.ini

| Entry | Default | Description | Remarks |
|---|---|---|---|
| DeleteNotesINI | 0 with 0 Uninstall instructions<br>1 with >= 1 Uninstall instructions | | Notes.ini is backed up, roamed into and adjusted for newly installed / upgraded client during upgrade |
| NotesIniFileOld | not set | Full path of old notes.ini file | |
| NotesIniFileOldAutoDetect | 1 | Set to 0 to disable auto-detection of notes.ini file | Will search old notes data and program directory for notes.ini file (newest wins, if multiple found) |
| NotesIniFileOldExclude | Directory\|SharedDataDirectory<br>\|NotesProgram\|Cache\|KitType<br>\|InstallMode\|InstallType<br>\|AUTO_SAVE_USER*\|DYNINFOCR_*<br>\|NewMailSeqNum*\|UseBasicNotes<br>\|ENABLE_EARLY_AUTHENTICATION<br>\|MC_LastActionUpdate<br>\|MC_LastBackupDate\|TemplateSetup | List of notes.ini entries to not include in backup for built-in roaming | |
| NotesIniFileOldExcludeRegExp | 0 | Set to 1 to treat NotesIniFileOldExclude as regular expression | |

## Data Migration – Multi-User Shared Data

| Entry | Default | Description | Remarks |
|---|---|---|---|
| MultiUserSharedDataOld | not set | Shared data directory of existing Notes client | |
| MultiUserSharedDataNew | not set | Shared data directory of target Notes client | If string ends on “/shared”, string until “/shared” |
| SkipMultiUserDataDirectory Migration | 0 | Set to 1 as to not move old shared data directory to new location (if applicable) | |
| MultiUserProfileIniHandling | CHANGE; will migrate multiuser installation folders, if applicable, including notes.ini entries (e.g., Lotus>HCL) | Set to DELETE to remove any old notes.ini files of multiuser installations<br>Set to RENAME to rename any old notes.ini files of existing multiuser installations | |
| MultiUserSharedDataOldExclude | not set | Used to exclude files when moving/copying files from old to new shared data directory | |
| MultiUserSharedDataOldExclude RegExp | not set | Set to 1 to treat MultiUserSharedDataOldExclude as regular expression | |
| MultiUserSharedDataOldExclude Action | DELETE | Set to SKIP if excluded files during shared data directory migration should be left behind | |
| MultiUserSharedDataMigration | DELETE<br>Deletes old shared data directory | Set to SKIP if old shared data directory should not be migrated and be left behind<br>Set to MOVE if old shared data directory should be moved to new shared directory | Make sure that you re-deploy shared/root notes.ini, setup.txt, mc.dll etc. as needed via the Setup tab |
| MultiUserSharedDataCleanup | 0 with 0 Uninstall instructions<br>2 with >= 1 Uninstall instructions | 0=no cleanup<br>1=any subfolders under %ProgramData% that contain both a notes.ini file and a subfolder “shared”<br>2=any subfolders under %ProgramData% that contain a notes.ini file and where the path contains Lotus, Notes, IBM or HCL<br>3=any subfolders under %ProgramData% that contain a notes.ini file | |
| MultiUserSymlinkCleanup | 1 with >= 1 Uninstalls | Set to 0 to not remove existing Symlinks | e.g., Lotus/IBM > HCL |

## Unzip

Archives (e.g. zip and 7z), compressed Executables, CAB files and more can be unzipped/decompressed using the following instructions: UnzipCommand UnzipSwitches UnzipArchive UnzipAppendix

| Entry | Default | Description | Remarks |
|---|---|---|---|
| UnzipText### | not set | Text to display in Progress Bar during unzip | |
| UnzipArchive### | not set | Name(s) of zip files to unzip at begin of upgrade | |
| UnzipCommand### | x | | |
| UnzipSwitches### | -aoa -y | Overwrite all files without prompt (-aoa), assume Yes on all queries (-y) | |
| UnzipArchiveToSubfolder### | 0 | Set to 1 to unzip archive into subfolder with same name as zip file without extension | |
| UnzipAppendix### | not set | Appendix to add to “unzip command line” | |
| UnzipSkipODI### | 0 | Set to 1 to skip unzipping if MCUpgrade was launched using /ignoredeferralfilemustexist | |
| UnzipDelete### | 0 | Set to 1, if the zip file should destroy itself after unzip | |
| UnzipDone### | not set; set by MCUpgrade | Used to memorize which UnzipArchive instructions have already been processed | Do not set |

## Uninstall

| Entry | Default | Description | Remarks |
|---|---|---|---|
| PreUninstallRemoveRegistryKey Name### | not set | Name(s) of registry keys to remove | |
| PreUninstallRemoveRegistryKey Value### | not set | Value(s) of registry keys to remove | Use * (asterisk/star) for entire key removal |
| PreUninstallSetRegistryKeyName### | not set | Name(s) of registry keys to Set | |
| PreUninstallSetRegistryKeyValue### | not set | Value(s) of registry keys to Set | Use (Default) or @ (case insensitive) for (Default) |
| PreUninstallSetRegistryKeyType### | not set | Type(s) of registry keys to Set<br>For REG_BINARY, the KeyValue must be prefixed with 0x (zero followed by an x), to represent Hex. Example: 0xbadeaffebadeaffe<br>For REG_MULTI_SZ, separate multiple entries with @LF@, without a trailing @LF@! | REG_SZ<br>REG_MULTI_SZ<br>REG_EXPAND_SZ<br>REG_DWORD<br>REG_QWORD<br>REG_BINARY |
| PreUninstallSetRegistryKeyTypeValue### | not set | Type Value(s) of registry keys to Set | |
| PreUninstallSetRegistryKeyOption### | not set | Option for setting of registry keys.<br>Optionally set to one of the values in the next colum.<br>If not set, registry change is always performed.<br>Optionally suffix separator to %MCU_*% (defaults to semicolon ; if not suffixed). | onlyifempty\|1<br>onlyifset\|2<br>%MCU_Merge%<br>%MCU_Unmerge% |
| UninstallText### | not set | Progress bar text for uninstall instruction(s) | |
| UninstallExec### | not set | Command line to execute for uninstall(s) | |
| UninstallExecErrorRegExp### | ^(?!0$).*$ | Regular expression to compare exit code of uninstall instruction with | |
| UninstallExecErrorSearchRegExp### | not set | Regular expression to search for in logfile (if Uninstall uses logging instruction) | |
| PostUninstallRemoveRegistry... | not set | Same as / see PreUninstallRemoveRegistryKey | |
| PostUninstallSetRegistry... | not set | Same as / see PreUninstallSetRemoveRegistryKey | |
| PostUninstallRegistryCleanup | 1 | HKEY_USERS*\SOFTWARE\Lotus\|IBM\|HCL\Notes are automatically removed if more than one uninstall instruction contains \nice.exe | |

## Install

| Entry | Default | Description |
|---|---|---|
| PreInstallRemoveRegistry... | not set | Same as / see PreUninstallRemoveRegistryKey |
| PreInstallSetRegistry... | not set | Same as / see PreUninstallSetRemoveRegistryKey |
| InstallText### | not set | Progress bar text for Install instruction(s) |
| InstallExec### | not set | Command line to execute for Install(s) |
| InstallExecErrorRegExp### | ^(?!0$).*$ | Regular expression to compare exit code of Install instruction with |
| InstallExecErrorSearchRegExp### | | Regular expression to search for in logfile (if Install uses logging instruction) |
| PostInstallRemoveRegistry... | not set | Same as / see PreUninstallRemoveRegistryKey |
| PostInstallSetRegistry... | not set | Same as / see PreUninstallSetRemoveRegistryKey |

## Post Install ini Management

| Entry | Default | Description |
|---|---|---|
| PostInstallIniSetFileDefault | not set | Default ini file to add entries to |
| PostInstallIniSetSectionDefault | not set | Default ini section to add entries to |
| PostInstallIniSetName### | not set | Name of entry to add to default or specific ini file |
| PostInstallIniSetValue### | not set | Value of entry to add to default or specific ini file |
| PostInstallIniSetFile### | not set | Specific ini file to add entry to, if not default |
| PostInstallIniSetSection### | not set | Specific ini section to add entry to, if not default |
| PostInstallIniSetFileMustExist### | 0 | Set to 1 to only manage entry in ini file if it already exists |

## Start Services, Disable Services

| Entry | Default | Description |
|---|---|---|
| StartService### | not set | Service(s) to start at end of upgrade;<br>Use MCUpgrade_StoppedServices to start all services that were stopped via StopService### (and still exist) |
| DisableService### | not set | Service(s) to stop and disable at end of upgrade |

## Citrix Optimization

| Entry | Default | Description |
|---|---|---|
| Coptim | 0 | Set to 1 to enable Citrix Optimization<br>If set to 2, only runs if a Citrix / Terminal Server environment is detected |
| CoptimWoptim | 1 | Set to 0 to disable Workspace Optimization when ini:Coptim=1 |
| CoptimDisableDEP | 1 | Set to 0 to not disable Data Execution Prevention (DEP) |
| CoptimCompactTemplates | 1 | Set to 0 to not compact Notes database templates in the (new) shared data directory |
| CoptimCompactTemplatesTimeout | -1 (=no timeout) | Set to number of seconds after which CoptimCompactTemplates shall no longer wait for compact to finish<br>NOTE: If used, we strongly suggest a minimum value of 300 = 5 minutes just to be on the safe side, especially with many languages |
| CoptimGrantEveryoneAllAccessToXPDPLAT | 1 | Set to 0 to not grant Everyone All Access to the xpdplat directory |
| CoptimDisableService### | not set | Service(s) to stop and disable when ini:Coptim=1 |
| WoptimWaitTimeUntilOpen | 120 | Wait time in seconds until we give up waiting for Notes to open |
| WoptimWaitTimeAfterOpen | 30 | Wait time in seconds after the Notes client user interface is displayed |

## Re-Run Shortcut

| Entry | Default | Description |
|---|---|---|
| ReRunShortcutTitle | not set | Title of Re-Run shortcut placed on Windows Desktop in case upgrade fails |
| ReRunShortcutIconNumber | 249 | Icon number from shell32.dll for Re-Run shortcut |
| ReRunShortcutName | MC Upgrade ReRun.lnk | Filename of Re-Run shortcut placed on Windows Desktop in case upgrade fails |
| Also see: DeferralNumberOfUpdatePrompts MaxShortcut* | | |

## Exit

| Entry | Default | Description | Remarks |
|---|---|---|---|
| CloseProgressBarOnExit | 1 | Set to 0 to prevent closing of progress bar at end of upgrade | |
| InstallFinishedExec | not set | Run program at end of successful upgrade | Sample use case: launch fullpath\notes.exe at end of upgrade |
| InstallFinishedExecCMD | 0 | Set to 1 to not encapsulate InstallFinishedExec string in "..." if missing | |
| InstallFinishedTitle | not set | Display a messagebox at end of successful upgrade | Requires InstallFinishedText |
| InstallFinishedText | not set | Display a messagebox at end of successful upgrade | Requires InstallFinishedTitle |
| InstallFinishedTimeout | not set | Automatically close messagebox at end of successful upgrade after specified number of seconds | Number of seconds, e.g. 60 |
| InstallFailedTitle | not set | Display a messagebox at end of failed upgrade | Requires InstallFailedText |
| InstallFailedText | not set | Display a messagebox at end of failed upgrade | Requires InstallFailedTitle |
| InstallFinishedCleanup | 0 (1 via Upgrade Config Wizard) | Delete all files in and underneath UpgradeDirectory at end of successful upgrade | Will leave MCUpgrade.exe, Splash Screen and MCUpgrade.log behind |
| InstallFinishedIcon | not set | Search for an icon on the windows desktop at the end of a successful upgrade and, if found, show preview where to find it | e.g.,<br>HCL Notes |
| InstallFinishedIconText | not set | Text to append to InstallFinishedText if InstallFinishedIcon is set and icon was found | |

## Special

| Entry | Default | Description | Remarks |
|---|---|---|---|
| NotesLanguageOld | not set | Used to set %MC_MYLANGUAGE% | Use case: Can be used as parameter for language pack installation if needed |
| PreCheckWhitelistChecksums | 0 | Set to 1 to pre-check all file checksum before starting upgrade | Adds to upgrade runtime, but prevents in-midst aborting of an upgrade due to checksum mismatch<br>Deprecated / removed since 11.0.46 |
| (Un)InstallExecWaitForProcess After### | not set | Set to list of processes to wait for to end after an (Un)install instruction according to WaitTimeForProcessAfter | |
| (Un)InstallExecWaitTime ForProcessAfter### | 60 | Set to number of seconds to wait for process(es) to end after an (Un)install instruction | |
| (Un)InstallExecWaitTimeAfter### | 0 | Set to number of seconds to wait for after an (Un)install instruction | |
| InstallService | not set | Set to 1 to install the panagendaInstallerService if missing | Requires MCUpgrade_PublicKey.sig in UpgradeDirectory |
| InstallChangePersonalFolder | 1 | Set to 0 to not set PersonalFolder location before installation. By default, IBM and HCL installers write logs to the Documents folder. | If Documents points to a network resource, Admin and/or System may not have access. If enabled (=default), MCUpgrade changes the log location to UpgradeDirectory\logs |
| NotesWorkspaceDirectoryNewSmartCleanup | 1 | Set to 0 to not cleanup a previously non-existing workspace directory generated during installation | |
| WindDefenderExcludeDefaults | 0 | Set to 1 to exclude default / best practice processes and paths from WinDefender | |
| WindDefenderExcludePath### | not set | Add paths to exclude from WinDefender | |
| WindDefenderExcludeProcess### | not set | Add processes to exclude from Defender | |
| WindDefenderExcludeForce | not set | Set to 1 to force re-applying settings | If set to 1 will ignore hash in registry |

## Do not set / maintained by MCUpgrade

| Entry | Default | Description | Remarks |
|---|---|---|---|
| SuRunAsStartTime | not set; set by MCUpgrade.exe | Used to memorize start time of first run | Do not set;<br>first run comparable to double-clicking. MCUpgrade.exe might re-run itself, then not setting time again |
| MCUpgradeMainStartTime | not set; set by MCUpgradeMain.exe | Used to memorize start time of MCUpgradeMain | Do not set |
| UpgradeProgress | not set; set by MCUpgrade.exe | Stores progress information for calling MCUpgradeMain.exe | Do not set |
| UpgradeProgressLast | not set; set by MCUpgrade.exe | Stores progress information for calling MCUpgradeMain.exe | Do not set |
| UpgradeSucceeded | not set; set by MCUpgrade.exe | Stores progress information for calling MCUpgradeMain.exe | Do not set |
| SMTPMailSent | not set; set by MCUpgrade.exe | Used to memorize sending of final Upgrade email | Do not set |
| PreviousUser<br>PreviousUserProfileDir<br>PreviousUserDesktopFolder<br>PreviousUserStartMenuFolder | not set; set by MCUpgrade.exe | Used to memorize user information from before elevation for fallback reasons | Do not set |
| UnzipDone### | not set; set by MCUpgrade | Used to memorize which UnzipArchive instructions have already been processed | Do not set |

# Index of MCUpgrade.ini entries


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# Appendix A: MarvelClient Upgrade Files and Folders

## %MC_UPGRADEDIRECTORY% Files (Mandatory)

| File | Description | Remarks |
|---|---|---|
| license_upgrade.xml | MCUpgrade license file | If not customized via LicenseFile in MCUpgrade.ini |
| MCUpgrade.exe | MCUpgrade executable | |
| MCUpgrade.zip<br>OR<br>MCUpgrade.ini | MCUpgrade zip or ini file | |

## %MC_UPGRADEDIRECTORY% Files (Depending on Use Case)

| File | Description | Remarks |
|---|---|---|
| MCUpgrade_[language].ini | MCUpgrade language file | Optional |
| MCKeyfileEditor.exe | Keyfile Editor to edit .mcu files | Not needed for end users |
| MCKeyfileEditor.dll | Keyfile Editor Dynamic Link Library (DLL) for .NET >= 3 < 4 | Maintained by KeyfileEditor; Not needed for end users |
| MCKeyfileEditor40.dll | Keyfile Editor Dynamic Link Library (DLL) for .NET >= 4 | Maintained by KeyfileEditor; Not needed for end users |
| MCUpgradeMain.exe | MCUpgradeMain executable for UAC elevation | Maintained by MCUpgrade.exe |
| MCUpgrade.log | MCUpgrade log file | Maintained by MCUpgrade |
| MCUpgrade.log-YYYYMMDDHHMMSS-Result.html | MCUpgrade log file in HTML format | Maintained by MCUpgrade |
| MCUpgradeSMTPInfo.log | MCUpgrade SMTP Info log file | Maintained by MCUpgrade |
| MCUpgradeSMTPTest.log | MCUpgrade SMTP Test log file | Maintained by MCUpgrade |
| MCUpgrade_deferral.ini | MCUpgrade Deferral ini | Maintained by MCUpgrade |
| MCUpgrade_PrivateKey_STORE_SAFELY_DO_NOT_SHARE.sig | MCUpgrade private key for Whitelisting | This file must only be used for Whitelisting and not be distributed to end users |
| MCUpgrade_PublicKey.sig | MCUpgrade public key for Whitelisting | When using the MCUpgrade service, this file must be in %PROGRAMFILES(x86)%\panagenda\MCUpgrade |
| panagenda_Splash.png | Optional custom Splash Screen | |
| panagenda_Splash2.gif | Optional custom animated GIF for Splash Screen | |
| Logo.png or Logo.gif | Optional custom logo for message/dialog boxes | If both files exist, png wins |
| SHA.txt | Resulting SHA-256 hash when using MCUpgrade.exe /sha | |
| MCUpgrade_checksum.log | Resulting SHA-256 hash, full b64 MD5 hash + 50 MB chunks | Created when indexing an installer |
| MCUpgrade_*.log | Created for various command line options | Created when indexing an installer or publishing an upgrade |

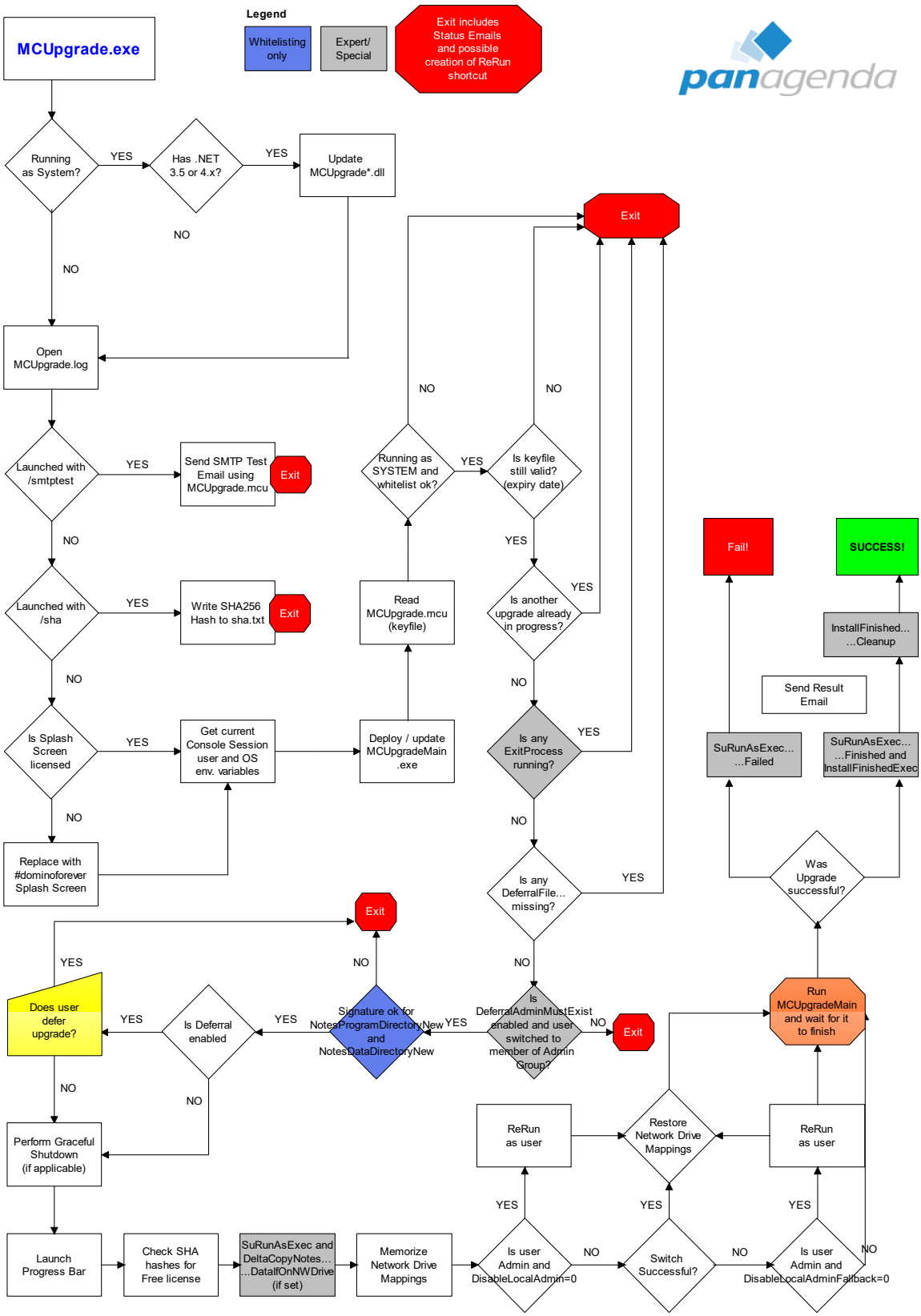
### %MC_UPGRADEDIRECTORY% Folders

| Folder | Description | Remarks |
|---|---|---|
| Backup | Maintained by MCUpgrade | Stores index.txt, root.ini, notes.ini and notes#.ini during Data Migration |
| CopyToProgramNew | Copies any missing subfolders and files to NotesProgramDirectoryNew | .ini, .properties and .txt files are merged if target file already exists |
| CopyToProgramNewOverwrite | Copies/overwrites any subfolders and files to NotesProgramDirectoryNew | .ini, .properties and .txt files are merged if target file already exists |
| CopyToMultiUserSharedDataNew | Copies any missing subfolders and files to MultiUserSharedDataNew | .ini, .properties and .txt files are merged if target file already exists |
| CopyToMultiUserSharedDataNewOverwrite | Copies/overwrites any subfolders and files to MultiUserSharedDataNew | .ini, .properties and .txt files are merged if target file already exists |
| Coptim | Contains files for Citrix optimization | Populated via Config Wizard |

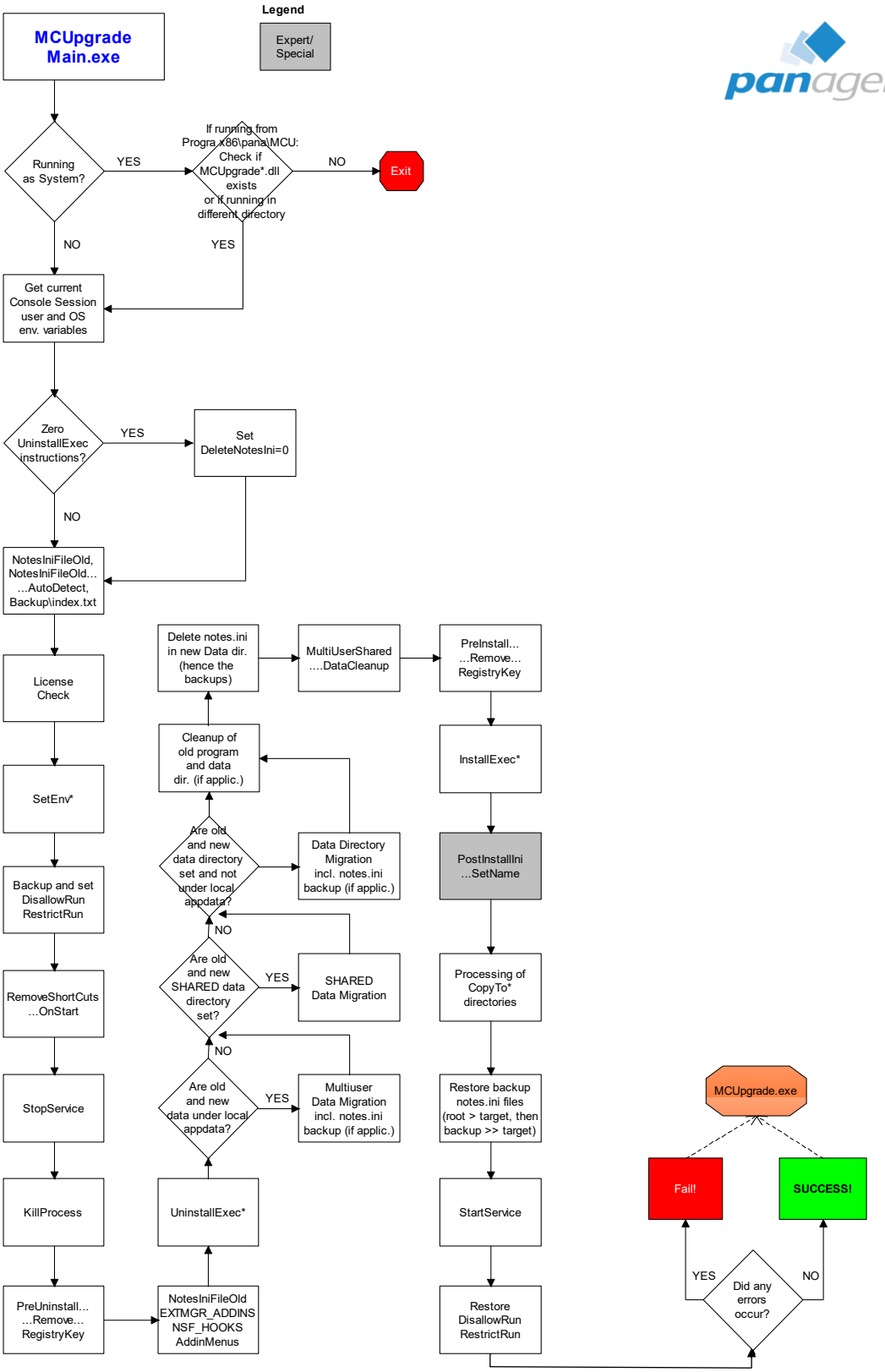
### %PROGRAMFILES(x86)%\panagenda\MCUpgrade (for MCUpgrade Service)

| File or Folder\ | Description | Remarks |
|---|---|---|
| MCUpgrade.dll | Service Dynamic Link Library (DLL) for .NET >= 3 < 4 | Maintained by MCUpgrade |
| MCUpgrade40.dll | Service Dynamic Link Library (DLL) for .NET >= 4 | Maintained by MCUpgrade |
| MCUpgrade_Publickey.sig | Custom public key file | Mandatory for Service |
| MCUpgradeService.exe | Service Executable | Mandatory for Service |
| MCUpgradeService.exe.config | Service config file for .NET | Mandatory for Service |
| MCUpgradeService.log | Service log file | Maintained by Service |
| Temporary Subdirectory (ini UpgradePackageName) | During an upgrade via Service, all whitelisted files are moved into a temporary subdirectory (safe location) and moved back at end of upgrade | Maintained by MCUpgrade |

# Appendix B: How MCUpgrade.exe works in detail



# Appendix C: How MCUpgradeMain.exe works in detail



# Appendix D: List of MarvelClient Error Codes (since 11.0.56)

| | |
|---|---|
| 1 | Most likely MCUpgradeMain.exe was killed/terminated unexpectedly |
| 1203 | Undocumented Windows Installer error: Remove all blanks from your installer filename! Don't forget to re-index your installer (including adjusting the filepath!) and re-publish your upgrade afterwards |
| 12-3010 | https://docs.microsoft.com/en-us/windows/win32/msi/error-codes<br>https://docs.microsoft.com/de-de/windows/win32/debug/system-error-codes--1300-1699- |
| 4698 | Another MarvelClient Upgrade is already in progress |
| 4699 | Default value if no other exit code could be computed |
| 4700 | MCUpgradeMain.exe is not the correct version |
| 4701 | Unable to (re-)deploy correct MCUpgradeMain.exe |
| 4705 | MCU: No compatible .Net framework found - even tried multi; exiting. |
| 4710 | Unable to open MCUpgrade log file |
| 4711/4712 | No License found (4711), No License found and checkout failed, too (4712) |
| 4713 | MCUpgrade.ini has less than UpgradeIniMinLines (defaults to 15) – exiting |
| 4720 | RunAsService is set to [%], but ini file and hence whitelist are missing |
| 4721 | Unable to read keyfile [%s] - RunAsService is set to [%], but ini file and hence whitelist are missing |
| 4722 | Unable to read keyfile [%s] |
| 4730 | DeferralAdminMustExist is ENabled: [0] username(s) to switch to are direct members of local Administrators group |
| 474x | Exiting due to whitelist mismatch for NotesProgramDirectoryNew (4740) / NotesDataDirectoryNew (4741) |
| 4750 | [Whitelisting error detail], exiting due to RunAsService=[%] |
| 4751 | Whitelist signature does not match or has been tampered with |
| 4752 | Whitelisting: One or more file(s) do not match checksum |
| 4760 | Hash check failed (MCUpgrade Free Edition) |
| 4761 | Unable to delete and deploy licensed splash screen - exiting. (MCUpgrade Free Edition) |
| 4770 | Exiting due to running as SYSTEM and unsupported command line parameter |
| 4771 | Workspace optimization failed due to missing Administrative rights |
| 4800 | MCDeltaCopy run FAILED - aborting operation. |
| 4780 | !InitiatorLocalFallback! DISABLED |
| 4781 | SourceDirectoryInit not specified |
| 4782 | % download(s) failed from … |
| 4783 | UpgradeDirectory not specified in [...\MCUpgrade.ini] |
| 4784 | NOTE: Could not find/access source |
| 4785 | An error occurred during upgrade file copy |
| 4786 | No files specified for download |
| 4787 | An error occurred during upgrade file download |
| 4900 | Unable to compute days left until keyfile expires |
| 4901 | Keyfile has expired [%s] |
| 5000 | WAITING for other installation: Another Windows installation is already in progress |
| 5001 | WAITING for user: Failed to close all relevant windows - exiting due to GraceFulShutdown=1 |
| 5002 | WAITING for user: User deferred upgrade |
| 5003 | WAITING for user: User declined UAC elevation request |
| 5010 | Unable to get process creation time for found ExitProcess |
| 5011 | Found ExitProcess which has not exceeded ExitProcessMaxRuntimeMinutes |
| 5012 | ExitProcessMaxRuntimeMinutes not specified for found ExitProcess |
| 5020 | WAITING for user: ShortCutCreateOnly option is set and parent process unknown |
| 5030 | WAITING for file(s): DeferralFileMustExist |
| 6000 | Could not instantiate Administrative rights through rerun |
| 6001 | Could not rerun |
| 6002 | Insufficient rights for running with /upgrade option |
| Other | Most likely return codes from installers e.g., Notes client, fix pack or any other executable |

# Appendix E: List of MarvelClient Registry entries

| Entry | Description |
|---|---|
| HKEY_LOCAL_MACHINE\<br>Software\panagenda\MarvelClient\Upgrade\<br>**SourceDirectoryInit** | File or web source to download upgrade files from<br>Usually configured in MCUpgrade.ini, also see chapter Initiator |
| HKEY_LOCAL_MACHINE\<br>Software\panagenda\MarvelClient\Upgrade\<br>**SourceDirectoryInitLocalFallback** | Set to 0 to disable SourceDirectoryInitLocalFallback<br>Usually configured in MCUpgrade.ini, also see chapter Initiator |
| HKEY_LOCAL_MACHINE\<br>Software\panagenda\MarvelClient\Upgrade\<br>**SuccessfulUpgrades\%packagename%** | List of successful upgrades by ini:UpgradePackageName set to date/time of successful upgrade.<br>Used to suppress repeated installation of a same package. |
| HKEY_LOCAL_MACHINE\<br>Software\panagenda\MarvelClient\Upgrade\<br>**WindDefenderExcludeLast** | SHA-256 Hash of last applied WindDefender instructions, if any |
| HKEY_LOCAL_MACHINE\<br>Software\panagenda\MarvelClient\Upgrade\<br>**Installer** | Backup of PersonalFolder for IBM and HCL installers (installer log location)<br>During an upgrade, HKCU\Software\%Vendor%\Notes\Installer\PersonalFolder are set to ini:UpgradeDirectory to ensure proper log file collection (%Vendor%=IBM and HCL) |
| HKEY_LOCAL_MACHINE\<br>Software\panagenda\MarvelClient\Upgrade\<br>**Backup\Explorer** | No longer used since MCUpgrade 14.2.5 (still supported for backwards-compatibility)<br>See next entry used since including 14.2.5 |
| HKEY_USERS\S-*\<br>Software\panagenda\MarvelClient\Upgrade\<br>**Backup\Explorer** | S-* = any S-* entry under HKEY_USERS that does not match S-1-5-18, S-1-5-19 or S-1-5-20 and that does not end on _Classes<br>Used to backup pre-existing DisallowRun and RestrictRun settings prior to applying ini:DisallowRun### settings |
| HKEY_USERS\S-*\<br>Software\Microsoft\Windows\<br>CurrentVersion\Policies\Explorer\<br>**DisallowRun** | Set at the beginning of an upgrade according to ini:DisallowRun### settings,<br>Unset at the end of an upgrade (in any case = both success and fail) |
| HKEY_USERS\S-*\<br>Software\Microsoft\Windows\<br>CurrentVersion\Policies\Explorer\<br>**RestrictRun** | Set at the beginning of an upgrade according to ini:DisallowRun### settings,<br>Unset at the end of an upgrade (in any case = both success and fail) |

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