

PROJECT MAGMA

MYTH II: SOULBLIGHTER

Version 1.7.2

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1. Introduction

Myth II version 1.7.2 is the latest installment in the 1.7 series of updates. Myth II 1.7.2 brings massive performance improvements, as well as several new features and numerous fixes for bugs that existed in previous versions of the game. Myth II 1.7.1 was primarily a bug fix update containing over 100 individual bug fixes. Myth II 1.7.0 was a feature and bug fix update, which brought exciting new features to Myth II, such as detail textures, smoother camera movement, an online plugin finder and more.

Myth II 1.7.2 is network compatible with Myth II versions 1.7.x, 1.6 and 1.5.1, but it is strongly recommended that all players use the latest version, in order to benefit from the game play bug fixes that are enabled only when all players are using Myth II 1.7.2.

A comprehensive list of changes in version 1.7.2 can be found in section "**5. Changes in Version 1.7.2**". Changes for version 1.7.1 are listed in section "**6. Changes in Version 1.7.1**" while the list of changes in version 1.7 are in section "**7. Changes in Version 1.7**".

Be sure to visit <http://projectmagma.net> for information on the game and discussion of the updates, <http://www.mariusnet.com> for online gaming and <http://tain.totalcodex.net> to download new maps and plugins.

2. Installation

You must already own a copy of Myth II: Soulblighter before using the Myth II 1.7.2 Update Installer. If you do not own a copy of the game, you may download the updated game demo from <http://getmyth.com>.

- a) Download the Myth II 1.7.2 installer for your operating system from <http://projectmagma.net>.
- b) Run the installer program and follow the instructions that will be presented to install Myth II from an original CD or to update a previous installation.

3. About Myth II

Myth is an addictive battlefield strategy game with great depth of gameplay that never grows stale. Unlike other games, Myth wastes no time with growing crops, collecting taxes and raising armies. It cuts right to the chase and focuses on the fighting itself. Nor is Myth a game purely for those with lightning reflexes and rapid key-pressing skills, as success depends just as much on intelligent foresight, planning and use of formations and terrain. Add to this an immersive solo campaign, the ability to play over the internet (even on a slow connection), plus a plethora of high quality 3rd-party plugins (along with tools to make your own) and you have a game that will keep you entertained for years to come.

4. Playing Online

Free online play is available through the MariusNet game server, where you can enjoy multiplayer Myth II action with players from around the world.

MariusNet supports guest accounts, but players are encouraged to register online at

<http://www.mariusnet.com>

To log on to MariusNet, simply go to the Multiplayer dialog in Myth II and select the MariusNet server before connecting to it. You may need to click the "Servers" button if you do not have MariusNet selected already.



5. Changes in Version 1.7.2

5.1 Major Improvements

- a) Massive optimizations to the OpenGL rendering code, especially when detail textures are enabled (2-5x speedup on modern hardware).
- b) A whole new rendering backend, DirectX10/11! This is likely to be the renderer of choice for users with modern AMD/ATI or Intel cards.
- c) New event-based input code guarantees that every character you type will be registered. This should finally fix the 'I can't type right in Myth' syndrome.
- d) Added a preference "Autosave Films (Multiplayer)" to automatically save all multiplayer films.
- e) Added type-to-see functionality to the new game, recordings and saved game lists.
- f) Myth will now save the overhead map size in preferences. Additionally, the default size of the overhead map will now be based on the game resolution.
- g) Fixed several causes of the endless "Waiting for other players..." dialogs which would also sometimes result in ghost players in post-game.
- h) Fixed two rare but annoying bugs where moving a unit could result in it being deselected instead.
- i) Eliminated up to two ticks of baked-in latency in the Myth net code. (One tick = 1/30th of a second.)
- j) Single-player new game dialog will now show custom plugin images again.
- k) Optimized gameplay code, resulting in 30% faster save game loads.
- l) New high resolution icons for Mac OS X Universal and Windows builds.

5.2 Game-play Bug Fixes

- a) Archers given the stab order via double click will no longer moonwalk.
- b) Units that are given an order at the exact moment when they are delivering a killing blow on an enemy should no longer ignore it.
- c) The castle gates will now open again on the TSG level Fall of Markon. (1.7.1 bug)
- d) Pressing T to lay a satchel charge while your dwarf is walking to attack a ground location should now work as expected.
- e) Clicking on ambient life while issuing a special ability attack that can only target enemies will no longer reset your selection. Instead, you will now target the ground beneath the ambient life.
- f) Explosions affecting a monster that is teleporting out will no longer result in incorrect scoring.
- g) Corrected Stampede and Hunting scoring such that a team that reached its current score earlier will now be ahead of teams that reached that score later.
- h) Having anti-clump enabled will no longer result in TFL-style scoring on certain game types.
- i) Fixed a bug where units standing knee-deep in water sometimes had their sounds skipped.
- j) Berserk monsters will now correctly respawn under Deathmatch. (1.7.1 bug)
- k) Fixed incorrect % (percent) totals appearing in the score display after uncontrollable units were detached (e.g. by script or as a result of the captain dropping).
- l) Fixed a moonwalking bug that could happen when a monster's target died.
- m) Damage received from unknown sources will no longer count as self-inflicted for scoring.
- n) Guided projectiles will no longer sometimes switch targets and do a full-circle if they barely miss hitting a monster that is not their target.



5.3 Graphics/Rendering Improvements

- a) Eliminated sprite/mesh flickering (only available with OpenGL 2.0+ and DirectX10/11 renderers.)
- b) Slightly improved camera smoothness (yes, even more smooth than 1.7.1!) by use of a higher resolution timer.
- c) Automatic guessing of optimal texture cache size.
- d) Overhead map blips will now fade together with the overhead itself, when it is toggled on or off.
- e) Models' media surfaces are no longer self-reflective. E.g. the water on a bridge model won't reflect itself.
- f) Fixed a bug where the use of an incorrect OpenGL texture clamping mode caused dark lines to appear at the edges of some model polygons.
- g) Fixed a rarely occurring bug with the shockwave effect (used by warlock fireball explosions, among other things) that resulted in a brief screen flashing effect.
- h) Fixed the issue where the last frame from a previous game would be briefly displayed when starting a new game with some graphic cards under OpenGL.
- i) Support for the new resolutions 1360x768, 1366x768, 1400x900, 1400x1050, 1920x1400, 2048x1152, 2048x1280, 2560x1080, 2560x1440, 2560x1600, 2560x1920 and 2560x2048.



5.4 Map Making Changes

- a) Overhead text will now default to white to improve readability.
- b) The LPGR map action will now be able to turn a group back on after turning it off.
- c) Delete monster CTRL will no longer result in damage received being recorded for the owner player.
- d) The TUNI map action `units_are_on_terrain_types` test will now work correctly when used in conjunction with radius / polyset filters.
- e) Fixed several cases where a TUNI map action would succeed if the filtered monster count is 0, when it should instead fail.
- f) Fixed a projectile leak that would happen when using a "fade out" MA on an invisible monster.
- g) Fixed a problem that could cause the "fade in" MA to not execute correctly.
- h) The extended monster flag "walks on water" will now work correctly when switching artifacts.
- i) The extended monster flag "mana isn't shown" will now also affects replays.
- j) Added new "Overrides Player Tints" flag for collection references to disable use of player colors.
- k) Increased `MAXIMUM_EXPLOSIONS_PER_MAP` to 64 from 24.
- l) Increased `MAXIMUM_LOCAL_PROJECTILES_PER_MAP` to 768 from 512.
- m) Increased `MAXIMUM_LOCAL_PROJECTILE_GROUPS_PER_MAP` to 256 from 96.
- n) Fixed issues with having more than 127 sequences in a collection. The new limit is 256.
- o) For people without a PageDown key, Shift-F5 now toggles the map-making limits display.

5.5 Other Changes and Fixes

- a) Chat text will now only auto-scroll for important messages, or if the current scroll position is all the way at the bottom. This makes it easier to read the chat backlog as new messages are arriving.
- b) Increased metaserver / game lobby chat backlog to 1024 lines (from 256).
- c) Fixed error message when the wrong password is used to connect to the metaserver. (1.7.1 bug)
- d) Name spoofing or use of the angle bracket characters ('<' and '>') in a player's name will no longer cause the metaserver player info dialog for that player to be blank.
- e) Fixed several glitches in the appearance of icon popup controls (player icon selector, room selector).
- f) Holding down shift while checking 'MaxFPS' or 'VSync' now allows enabling both simultaneously.
- g) "TFL Style Gesture Arrows" and "TFL Style Selection Boxes" options have been merged.
- h) Ambient units will no longer prevent units from appearing on the unit trading dialog on some maps.
- i) Fixed issue where the unit trading dialog's points remaining count would not always be updated.
- j) Saved games and films that are missing plugins will now bring up the missing plugins dialog.
- k) Switching presets via the scroll wheel will now work after restoring a saved game.
- l) "Casualty" sound will no longer be played to neutral observers.
- m) Fixed a crash that would happen when loading "GoC2: Hills of the Crow".
- n) If you don't specify a port when joining a game by TCP/IP address, the default Myth port will now be used, rather than [Net.Hosting] PortNumber from poweruser.txt.
- o) Fixed listing of LAN games when you have a custom [Net.Hosting] PortNumber set in poweruser.txt.
- p) Fixed a logic error in the sound code where a sound channel could get interrupted when full.
- q) The OpenGL renderer, vendor and version information will now be recorded in the Myth log.
- r) Switched the shortcut for help from '?' to `cmd+'?'` (`alt+'?'` on Windows) so that the unmodified '?' keystroke could be used as a configurable control.
- s) Prologues will now be abortable only with space, escape, return or click instead of any key - same as cutscenes - to allow for alt-tab without cancelling a prologue.
- t) Myth will now ignore the 'network only' tag, which has long since passed its usefulness.
- u) Fixed several other causes of crashes and OOS bugs.

5.6 Platform Specific Changes

Windows Specific Changes & Bug Fixes:

- a) The “Classic” and “Modern” builds have been discontinued – All Windows versions are now fully supported by a single build.
- b) Added a new preference, 'Use Multi-Core', which allows Myth's threads to run on multiple cores. While Myth itself is not multithreaded, modern graphics drivers are, and in some situations very large FPS gains (2x or more) have been observed. NOTE: This option has not undergone significant testing, and therefore should be considered 'experimental' or 'beta' – It is disabled by default.
- c) All: Refined the choices for windowed/fullscreen: Now you can choose from:
 - a. **full screen.**
 - b. **automatic:** Windowed if the window fits on your desktop, fullscreen otherwise.
 - c. **windowed:** Like automatic, but when run at native/desktop resolution, enters a special “windowed-fullscreen” mode, which supports instant alt-tabbing as well as desktop composition on Windows Vista or higher.
- d) All: In single player, Myth will automatically pause and enter a reduced-CPU-use state when you switch to another app.
- e) All: SMACKW32.dll is no longer required for Myth to run (it's still required to play smacker cutscenes).
- f) All: Myth now defaults to windowed mode, and will automatically fall back to windowed mode if fullscreen mode fails.
- g) All: For users with international keyboards: Added new option “Sys Key Layout” to the control preferences to replace the functionality that used to be provided by 'Use DirectInput'.
- h) All: The myth_log.txt file will now be renamed after crashing to prevent it getting accidentally lost by carelessly or unknowingly relaunching the game.
- i) All: Myth will now display a message box encouraging the user to report a crash when it happens.
- j) All: Buffer overflow errors will now be routed through the regular crash handler.
- k) All: Fixed the issue of the camera occasionally continuing to move while Myth is not in focus.
- l) Windows 7: Added a workaround for the low-level hook timeout bug in Windows 7, which caused problems with the way Myth uses the Windows key (option key).
- m) Vista+: Disabled 'UAC virtualization'. This only affects users who install Myth in the “Program Files” directory. The 1.7.2 Installer will automatically migrate any virtualized files (save games, etc.) for the current user. If your Myth install is used by multiple Windows user accounts, that data will need to be moved manually from %userprofile%/appdata/VirtualStore/ .
- n) Vista+: Fixed the 'vista sound delay' bug.
- o) Vista+: Fixed fullscreen/windowed toggle.
- p) Vista+: Faster map restarts under OpenGL.
- q) XP+: Myth now respects user control panel preference for left/right mouse handedness.
- r) 9x: Myth no longer minimizes & maximizes itself during resolution switches.
- s) 95: Myth can now be launched in Windows 95 again!

Mac Specific Bug Fixes:

- a) Mac OS X Universal Binary build can now join LAN games hosted on Windows.

6. Changes in Version 1.7.1

6.1 Important Bug Fixes in Version 1.7.1

- a) Sounds will no longer sometimes play much louder than they should.
- b) Animated model shadows will no longer interfere with mesh stains.
- c) Shift-backspace will no longer be ignored while in text input mode.
- d) Improved precision in model collision detection code (fixes the Fetchball "invisible wall" bug).
- e) Game scoring will now be recorded precisely when the game ends, rather than a tick later. This fixes the rare occurrence where the final score would be inconsistent with the game end criteria.
- f) The bug where several units may become stuck together, unable to move, is now fixed.
- g) Having ambient units on the screen will no longer interfere with de-selecting units by pressing enter (when all your units are selected).
- h) Clicking on underwater objects will no longer sometimes result in your units getting de-selected.
- i) Mesh geometry should no longer sometimes change with detail textures on.
- j) The missing plugins dialog will now be updated when game settings change while it is open. It will either show the updated list of missing plugins or will be closed if the new game settings do not have missing plugins.
- k) Myth will no longer crash when starting a coop game that has too many veterans.

6.2 Game-play Bug Fixes in Version 1.7.1

- a) Fixed bug where a unit that was unstoned by healing would be unable to move until taunting.
- b) Fixed more cases of "heron turn bug" (where a unit would turn 90 degrees for no apparent reason).
- c) Fixed bug where you could make your units suicide by ordering to attack similar monsters and clicking on a berserk unit on your team.
- d) Scenery linked to model animation will now get priority when objects are included in explosions. Fixes the issue where the bridge may fail to collapse when playing The Forge.
- e) Fixed scoring issue where players would end up with negative number of units owned at end game, when units are made player controllable via script.
- f) Monsters that have left the mesh (for e.g. as a result of stampede teleportation) will no longer be selectable using presets.
- g) Monsters stopped by spacebar that become berserk will now behave berserk, instead of stopped.
- h) Berserk units will no longer be smart and run away from wights.
- i) Fixed bug where a Remove Artifact CTRL MA would affect the wrong unit.
- j) Units teleporting during explosions that deform the mesh will no longer sometimes appear at the wrong height above / below the mesh.
- k) Shift-option clicking on overhead to give units waypoints now works again (1.7 bug).
- l) Prevent crashes and other issues related to unit trading by ensuring that units that are currently being traded do not auto-attack nor take any damage.
- m) Projectiles that don't have the "Lifespan" checkbox checked in Fear will no longer be treated as if they had a lifespan of 65535 (and possibly disappear 36 minutes into the game)



- n) The unit trading dialog will now handle 0 cost units correctly.
- o) Switching artifacts while attacking will no longer cause some units to loop their attack animations.
- p) Monster sequences will no longer sometimes fail to be updated after an artifact switch.
- q) Projectiles that promote to units are no longer considered for omission when the projectile limit is almost reached.
- r) Keyframe calculations for units with very large sprites will no longer produce incorrect results.
- s) The "Appears in Netgame Type: Custom" Loathing flag will now work consistently between network games and films. Fixes OOS when watching Dream of Death films.
- t) Restored monster charge behavior to how it was in 1.6 and earlier. The 1.7 flag "can extend charge duration", which simulated the 1.6 behavior, is no longer needed. A new flag, "has limited charge duration" is added to emulate the 1.7 charge behavior.

6.3 Platform Specific Changes in Version 1.7.1

Windows Specific Bug Fixes:

- a) All: Enabling OpenGL 3D fog will no longer result in a 'white screen of death' with ATI video cards.
- b) All: Fixed the bug that would sometimes cause certain game sounds to get delayed.
- c) All: Cutscenes will no longer sometimes quit if 'use DirectInput' is enabled.
- d) All: In the event of a crash, the crash film will now be saved along with a stack trace in the Myth log.
- e) Modern: Having the task bar on the left or top of the screen will no longer cause it to be visible in game after alt-tabbing.
- f) Modern: Myth will now boost the system timer resolution (so opening Windows Media Player will no longer be necessary to boost FPS on some systems).
- g) Modern: Fixed a bug on Windows Vista when transitioning to windowed mode.
- h) Modern: Resolution switch failure will no longer result in quit.
- i) Modern: Fixed the ability to go fullscreen on some Intel Integrated cards on Windows Vista.
- j) Modern: Allow running multiple Myth II instances from separate installs (same as Mac version).



Mac Specific Bug Fixes:

- a) In windowed mode, the title bar will no longer get positioned behind the menu bar as a result of centering the window with some resolution settings.
- b) [Renderer.OpenGL] UseDepthTest INI file setting will now default to FALSE for Mac PowerPC build for performance reasons. It can still be manually enabled via the poweruser.txt file.
- c) Different default INI file settings will now be used for GeForce4 Ti video cards on PowerPC Macs, to improve performance.



6.4 Performance Improvements in Version 1.7.1

- a) Faster game loading times as a result of optimizations to the tag loading algorithm.
- b) Faster GEOM map action execution times as a result of optimizations to the map action code.
- c) Improved OpenGL rendering performance when a dialog is visible.
- d) Under OpenGL, the color map texture will now only be updated if a game tick has elapsed or the observer camera has moved.
- e) Restoring a saved game should now be slightly faster.
- f) Waiting for other players dialog will no longer cause high CPU usage.
- g) Fixed potential delay when save a recording for the first time after loading Myth.

6.5 User Interface Changes in Version 1.7.1

- a) Switching artifacts via the scroll wheel will now show inventory menu.
- b) Units of the player who saved the film will now show player's name.
- c) Game difficulty will now be shown in status bar for all games.
- d) Console menu will now exhibit time-based fading.
- e) Fixed issues with interface transparency under software rendering.
- f) You can now shift-click in text fields to grow the text selection.
- g) Fixed issues with selection in multi-line text fields.
- h) Having a chat prompt open will no longer block Casualty (and similar) messages from appearing.
- i) Fixed a bug in which the saved game date could be displayed incorrectly.
- j) The saved game's date is now shown relative to the screenshot location.
- k) Saving the last replay will now select the renamed replay in the list.
- l) Trying to save the last replay as "Last Recording" will no longer result in its deletion.
- m) The following colors can now be customized by interfaces using the "internal dialog elements": progress bar color, edit text focus box color, checkbox text color and radio button text color.
- n) The headshot area will no longer crop the status bar text when the unit has no headshot sequence.
- o) Fixed a bug where the Unit Trading checkbox could become enabled while Planning Time was off in multiplayer game settings.
- p) An error message will now be displayed if the metaserver disconnects during the login sequence.
- q) The plugin chooser window is now wider to prevent long plugin names from becoming cut off.
- r) The find player window is now wider to prevent long search results from becoming cut off.
- s) Control boundaries have been expanded in the player stats dialog to prevent wrapping.
- t) Increased the number of characters that can be displayed in the status bar from 256 to 1024.
- u) Fixed several redraw issues affecting some custom interfaces.
- v) Various minor interface tweaks to alignment and display of controls.

6.6 Other Bug Fixes and Improvements in Version 1.7.1

- a) Corrected zoom level for widescreen monitors.
- b) Neutral observers can now see underwater units.
- c) Fixed crash that would happen if you set the [Net.Hosting] PortNumber poweruser.txt setting.
- d) Inventory key is now latched. (i.e. does not repeat.)
- e) Player drop messages will now be displayed when watching films.
- f) Fixed the issue where going to a player using player search may send you to the wrong room.
- g) MAXIMUM_MONSTER_DEFINITIONS_PER_MAP has been increased to 128.
- h) Fixed a subtle bug in the rendering of submerged objects in OpenGL.
- i) Non-reflective media will once again be rendered correctly.
- j) To prevent detail texture add-on conflicts, detail texture tags from the same archive file as the detail map will now take priority when loading.
- k) Several fixes to timer-related logic that failed after the system timer exceeded 2^{31} .
- l) Model surfaces that have invalid (non-power-of-two) textures will no longer be rendered.
- m) Model textures that are larger than 256x256 will now also work with the software renderer.
- n) Math map action now supports fixed-values and will correctly report success/failure conditions.
- o) Game version and build number will now be sent to the metaserver upon login.
- p) The .info command in the game lobby will now say if the game is behind a password.
- q) Monsters saved with Fear 1.7.1 will no longer use terrain costs for impassability via a hidden flag.
- r) Overhead text will now appear above a unit's selection box rather than above its current bitmap.
- s) Fixed several buffer overflow vulnerabilities when handling packets from the metaserver.
- t) Fixed a cause of OOS when watching 1.3 films.
- u) Playing or watching a game that uses plugins will no longer prevent the Tutorial from loading.
- v) Game time will now be shown instead of "GAME OVER" text if paused.
- w) Fixes for various crash bugs that could happen with previous versions.
- x) Added support for resolutions: 1280x1080, 1440x1024, 1440x1080, 1600x768 and 1600x900
- y) Increased maximum game speed to 64x.



7. Changes in Version 1.7

7.1 Major Improvements in Version 1.7

- a) Support for high-resolution detail textures under OpenGL. This is an optional feature and can be enabled under preferences with the checkboxes "Landscape Textures" and "Anisotropic filtering".
- b) Improvements to the in-game camera provide smoother movement and allow it to update faster than 30 times per second, providing a more enjoyable playing experience.
- c) The overhead map can now be resized by shift-clicking and dragging it to make it larger or smaller. To restore it to the original size, simply shift-right-click (or shift-control-click). This feature is not available in software mode.
- d) Missing plugins can now be found automatically, if they are available on The Tain. This is done through a new dialog that will show missing plugins when trying to join a red game. This feature is not available on the Mac PowerPC build.
- e) Support for high-resolution Quicktime cutscenes. High-resolution versions of the original Myth II cutscenes are available to download from The Tain. Once downloaded, simply place these into the "cutscenes" folder inside the "Myth II" folder and they will be shown instead of the original low-res versions. This feature is not available on the Mac PowerPC build.
- f) In the plugin activation dialog, you may now search for a plugin by name.
- g) When a team captain drops during Unit Trading, the new captain will now be able to trade units.
- h) The maximum length of in-game chat messages has been increased.
- i) Veterans will now persist in multiplayer co-ops games, even if players drop or new players join.
- j) In single player mode, active plugins will now persist between Myth sessions.
- k) Increased maximum plugins allowed to 1024 from the previous limit of 512.
- l) New and improved program wide CPU limiting code.



7.2 Game-play Bug Fixes in Version 1.7

- a) Fixed an issue where units would sometimes refuse to obey your orders and would keep attacking in large melee fights.
- b) Fixed the bug where herons would sometimes turn before healing themselves.
- c) Fixed pathfinding bug where Trow would zig-zag when ordered to attack a unit behind enemy lines.
- d) Fixes for some causes of the Trow "magic dirt" bug, where a unit (usually a Trow) that is half surrounded by enemies "magically" can't escape, even though it plainly should be able to.
- e) Fixed a bug in which units performing special (T) attacks ignored movement commands.
- f) Fixed bug in which some melee units would repeatedly "hump" their targets in-between swings.
- g) Fixed a bug where charging units kept running even though no longer attacking.
- h) Stoned monsters that get healed no longer need to taunt before they can move.
- i) Fix for unit tint sometimes having no effect in multiplayer.
- j) The correct monster effect modifiers will now be used for fire damage logic.
- k) Fixed bug that caused units that walk on water to not be selectable when created.
- l) Flying units made visible via an entrance effect will have the correct height over ground now.
- m) Dropping the last artifact will now properly restore the monster type.
- n) Fix for cycling through presets if your currently selected preset dies.
- o) Fixed various game-play related crashes, freezes and OOS bugs.



7.3 Interface Bug Fixes & Enhancements in Version 1.7

- a) In text fields, text can now be selected by dragging.
- b) In text fields, cursor can be positioned by clicking.
- c) In text fields, cursor can be moved to start or end of line using either Home/End or Ctrl-A/Ctrl-E keyboard shortcuts.
- d) Removed the 1/3-second delay before chat is sent in the metaserver and game lobbies.
- e) Removed 1/3-second delay before a clicked control bar button would activate.
- f) Control bar buttons will now animate (briefly) when pressed.
- g) Double-clicking on control bar or status bar will no longer cause a click on the mesh.
- h) The selected replay will no longer be reset after viewing it.
- i) The selected replay will now display the version of the game it was played with.
- j) You may now use shift up-arrow to toggle display of the chat backlog in game.
- k) New preference for caps lock: Ignored, Selection Boxes, Health Bars, Player Stats or Chat Backlog.
- l) Added support for resolutions 800x480, 1024x600, 1280x720 and 1440x960.
- m) Added new game lobby commands: .help, .plugins, .info and .userid.
- n) For passworded red games, you will be shown the reason the game is red when attempting to join it, rather than being first asked for the password.
- o) Fixed "team game" message overwriting "veterans" message in coop game description.
- p) Fixed issue where garbage would sometimes get displayed instead of a player's name in metaserver lobby chat.
- q) Network prefs will no longer reset to Gimble or Willow Creek when meshes from active plugins should instead remain selected after restarting the game.
- r) A new preference option to use TFL-style selection boxes (thicker lines) is available.

7.4 Platform Specific Changes in Version 1.7

Mac Specific Changes:

- a) Support for mighty-mouse and 2-finger track pad scrolling in the user interface.
- b) Support for selecting the monitor Myth will use. (Universal Binary version)
- c) Device dialog re-written in Cocoa. (Universal Binary version)
- d) Fixed a cause of OOS related to unit trading. (Universal Binary version)
- e) Fixed display of game ping times in metaserver lobby. (Universal Binary version)
- f) Fixed LAN network game discovery. (Universal Binary version)
- g) Various improvements to Windowed mode on the Mac.
- h) Custom folder icons for Myth folders will no longer cause issues.

Windows Specific Changes:

- a) When using Direct3D, in-game text will no longer be corrupted by alt tabbing out of the game.
- b) Affinity is now limited to one Core/CPU, which fixes some networking issues.
- c) Fixed a bug where sometimes the Myth window would not appear in the taskbar (Modern version).
- d) Fixed a bug where Myth would become unplayable if Myth was minimized when a game started or ended. (Modern version)
- e) The Myth window will now be centered on the screen when Myth starts. (Modern version).
- f) Alt-Tab will now work even if Myth is the only app running (Note: "Use DirectInput" must be off for this to work). Closing some other window while Myth is minimized will no longer immediately re-activate the game. (Modern version)
- g) In full screen mode, the cursor will no longer be able to leave the primary monitor. (Modern version)
- h) During a single session of Myth, the window position will now be remembered. (Modern version)
- i) Under OpenGL or Software, if your Myth resolution matches your Desktop resolution, then Myth will run in "Pseudo Full Screen" mode, which allows instant alt-tab. (Modern version)
- j) Myth will only go into "Windowed" mode if the window will actually fit on your desktop. (Modern version)
- k) If Myth is running in a window, you can now hit Alt+F10 to toggle "On Top" mode. (Modern version)
- l) Real time gamma updates in the preferences screen. (Modern version)
- m) Mouse-wheel zooming (if enabled in prefs) is now smoother.
- n) The smacker cutscene from "A Long Awaited Drinking Party" will now play correctly.
- o) The Software renderer will now display in 16 bit color (was 15 before). (Modern version)

7.5 Graphics Improvements in Version 1.7

- a) Under OpenGL, use depth testing to achieve correct rendering of models which intersect the mesh.
- b) Under OpenGL, use perspective correct texture mapping to eliminate texture distortion.
- c) Under OpenGL, fonts now look like they do under software - stronger and better anti-aliased.
- d) OpenGL performance optimizations for modern graphics cards.
- e) A new preference for VSync has been added to the OpenGL renderer.
- f) A new preference called "texture cache" allows you to manually specify the amount of VRAM OpenGL should use to cache textures and sprites. A good rule of thumb is to set this number to be approximately 75% of your graphics card's total memory.
- g) Added support for 1280x1024 and 1600x1200 resolutions under 3dfx. Unsupported resolutions will no longer be shown for 3dfx.
- h) Improved FPS calculation and display.
- i) Render memory limit will now be shown on Shift-PageDown.

7.6 Bug Fixes, Features and Stuff that doesn't fit into the above in v1.7.

- a) Fixed Last Recording corruption bug.
- b) Improved error messages when plugins fail to load due to tag limits.
- c) When viewing a film, the initial camera will show a team with players.
- d) Under vTFL, flags will now count as obstacles - true to the original.
- e) Meshes flagged "complete" will no longer print warning if there is no overhead map.
- f) An artifact's override monster will now affect the headshot shown.
- g) Fixed incorrect reporting of end-game statistics in some cases.
- h) Increased maximum overhead map dimensions from 384x384 to 4096x4096.
- i) Local projectiles limit is now shown using the Shift-PageDown mapmaking feature.
- j) TUNI map action for "units selected" no longer triggers in films and net games (OOS fix).
- k) Fixed saved games to be portable between different platforms.
- l) Allow toggling rendering of detail textures by hitting f11 or PageUp (only if enabled in prefs).
- m) Numerous fixes to control preferences; various settings now work right when changing input sets.
- n) Can now ally with > 10 teams by holding shift (like detach).
- o) Eliminated teams will no longer be able to open alliance menu.
- p) Double-clicking a slider, such as gamma or sound, will now reset it to default.
- q) Fixed buffer overflow vulnerability when receiving player info packets from metaserver.
- r) Clicks no longer go to the overhead map while it is fading out.
- s) "3D Fog" setting will no longer be reset if you switch to Software Rendering and back.
- t) The "MaxFPS" value will no longer be lost when turning MaxFPS on / off.
- u) Fixed issue with post-game stats appearing while loading a saved game.
- v) Various fixes for crashes and hangs and several code optimizations.
- w) Fixed a cause of OOS when watching 1.3 films. All films from the Myth 2 Done Quick challenge now play without going OOS.



8. New Map Making Features (1.7 - 1.7.2)

This section describes the details behind the new mapmaking features and improvements in Myth II 1.7.2. For map-making changes that are specific to version 1.7.2, see section “5.4 Map-Making Changes”. Some of the features described below require updated versions of the Fear and Loathing tools, which are included with the Myth II 1.7.2 installer.

1. The LOCK map action.

This map action should now work in Myth II scripts in the same way as it does in TFL. Previously, this action was always broken in Myth II.

2. CTRL to set unit overhead text.

A new CTRL map action has been added to set (via script) some text that is to be displayed above the head of a unit. The current limit for the number of such simultaneous text messages that are displayed is 64, and this limit is visible at run-time using the Shift-PageDown mapmaking debug feature.

To use it, first create a String List in Fear containing the text messages that you wish to be displayed above a unit's head. Then, in a CTRL map action, use the following parameters:

Tag	Type	Info
otxt	Field Name	The String List tag that will be used to set the overhead text.
otsi	Integer	The index in the String List of the text that will be displayed. <i>Optional parameter. Default value is 0.</i>
otft	Field Name	The Font tag that will be used for the overhead text. <i>Optional parameter. Default value is <code>_screen_font_high_resolution_tag</code></i>
otsh	Flag	If true, text shadow will be used. <i>Optional parameter. Default value is false.</i>
otcl	Integer (list of exactly 3 values)	Specifies the color of the overhead text that will be used, in the form of values from 0 to 65535 for red, green, blue - in that order. <i>Optional parameter. Default color is black.</i>
otim	Integer	Number of ticks the overhead text will last. <i>Optional parameter. Default value is 300.</i>

3. New map action to control in-game fading.

A new map action has been introduced that allows to (via script) fade the game area in or out, with parameters to specify starting opacity, duration, as well as the fade color. Only a single fade may take place at any time.

A new map action has been added for in-game fading with the tag 'fade'. It takes the following parameters:

Tag	Type	Info
dura	Integer	The fade duration. If set to 0, the current fade is turned off. A positive value specifies that it is a "fade out" - which means that the screen will become more opaque over time. A negative value specifies that it is a "fade in" - which is the reverse of a "fade out". The absolute value of the parameter specifies the number of ticks the fade effect will last.
durs	Integer	Specifies the starting duration of the fade. Provides the ability to start a fade mid-way.
colr	Integer (list of exactly 3 values)	Specifies the color to which (or from which) the screen is to be faded. For a "fade out", this is the final color that will be reached when the fade terminates. For a "fade in", this is the starting color. The values specify the red, green and blue components for the color, in that order. The values must be between 0 (no color) and 65535 (full color). For example, 0/0/0 is black while 65535/0/0 is red.

4. The "Can Target Flying Units" extend flag now actually works.

5. Projectiles that promote into units.

Projectiles may now be set to promote into units. This is done in (the updated) Fear, in the same way as promotion to projectiles or projectile groups are set. Simply select the Unit to which the projectile promotes in the drop-down menu.

The unit type must already exist on the map, as per charm rules. If the location of the projectile is on impassable terrain, or is too high above the ground, the unit is immediately killed. Otherwise, a new unit is created, and given to the owner of the projectile. This also works for projectiles created as a result of a unit's death.

6. Detail textures.

Support for detail textures is a new mapmaking addition. Using a new mapmaking tool called Oak, mapmakers may paint their meshes with detail textures.

Detail textures are only supported under OpenGL, and may be turned on or off by the user, through the preferences. If detail textures are turned on, the game looks for a 'dmap' tag that has the same id and dimensions as the color map of the mesh being played. If it exists, all 'dtex' tags referenced by the 'dmap' are loaded, and the mesh is rendered with detail textures.

7. Charging units.

Previously, a bug existed that allowed units to keep charging when they were no longer attacking an enemy. Since the feature was meant to work the same as in TFL (which did not have this bug), this behaviour is no longer the default.

Instead, if you wish to emulate the old (pre-1.7) behaviour of charging units, this is possible by setting the new "Can Extend Charge Duration" flag on the monster.

8. Alternate projectiles for projectile group parts.

You may now specify an alternate projectile on a projectile group part. It will be created only if the primary projectile fails to be created as a result of a random number check against the appearing fraction. If the alternate projectile is specified, it will be then created in this circumstance.

9. Artifacts may now be set to NOT override the monster's effect modifiers.

A new flag has been added for artifacts, which makes an artifact have no effect on a monster's effect modifiers. This flag has no effect on artifacts that override the unit's monster tag.

8. Specifiable visibility type on LPGRs.

You can now set a visibility type on an LPGR in Fear. The possibilities are:

- visible to everyone (default)
- visible to owner only
- visible to team only
- visible to allies only (which includes the owning team)
- visible to enemies only

9. CTRL to make monsters drop their currently held objects.

A new CTRL map action has been added to instruct monsters to drop the objects they are currently holding, exactly in the same way as done by Shift-I.

This is done by specifying the 'drop' flag parameter on the CTRL map action.

10. Map action flag "Deleted on Deactivation"

A new map action flag has been added, "Deleted on Deactivation". When the flag is set, the map action will be deleted when it becomes deactivated. With this flag, you can avoid using extra MUNG actions to delete actions that are no longer needed.

11. Change the word "None" for monster inventory item 0.

You can now override the text shown in the inventory menu for the option where the monster holds no artifact. Previously, this text would always be "None".

To override this text, simply make sure that the monster spelling string list for the monster has 3 entries. The third entry will be the text that will be displayed in the inventory menu for index 0.

12. Monster flag "Cannot be healed" will now prevent negative-damage healing.

The monster flag "Cannot be healed" was always available in Fear, but no one has actually ever bothered to implement it in the game. It is now implemented - but is used only to prevent negative healing as a result of negative damage attacks.

13. New object flag "Not Accelerated By Damage".

This new object flag only affects projectiles. When set, a projectile's object will take damage, but will not be accelerated (moved) as a result of the damage.

14. OBCO to hide all projectiles of the given type.

A new OBCO map action has been added to hide all projectiles of a given type.

This is done by specifying the 'hial' flag parameter on the OBCO map action, in addition to the 'type' parameter. It is the reverse of "Reveal All" flag.

15. Added closest_waypoint flag for MOVE which allows more than 4 waypoints.

Imported from M3, the closest_waypoint 'clos' flag will select the closest waypoint to go to, relative to the center of all the specified monsters, from the list of waypoints. Only one destination waypoint will be set for each monster.

16. Can now specify Win/Loss post-game music on a per-mesh level.

Two new drop-down menus are now available in Fear when editing a mesh. The "Postgame Success" item specifies the ambient sound that will be played on a win, while the "Postgame Failure" item specifies the ambient sound that will be played on a loss.

17. New type of Myth file: Add-on.

Add-on files are always loaded by Myth II, similar to Patch files, but do not cause any change in the tag checksums. This means that players with different sets of add-on files may play together on the internet.

Only certain types of tags are allowed in add-on files: 'obpc', 'form', 'stli', 'font', 'inte', 'temp', 'dmap', 'dtx'.

The "version" field in the add-on file header specifies the load order of add-ons. It must be a positive integer of value 2 or higher. It is meant to define the load order of different add-ons. An add-on with a high value in the version field will load after an add-on with a low version number.

18. Exporting stained color maps after a game.

It is now possible to save the stained color map after a game (thanks to Renwood). To do this, simply create a *stained_maps* folder in your Myth II directory, and Myth will save the stained color map to this directory after each game. To turn this off, simply rename your *stained_maps* folder to something else. *Warning: If you accidentally leave this on after you have finished, it will continue to consume more disk space with every game played.*

19. New math map action.

20. Customizing user interface colors.

Interface creators can now customize more colors in the Myth II interface. This is done by editing colors in the "internal dialog elements" collection. Specifically, color #9 is now used for the progress bar color, #10 is the edit text focus box color, color #11 is for checkbox text and color #12 for radio button text.

9. Power User Preferences

Myth II 1.7.x provides a new mechanism for setting certain preference settings that are not available in the standard preferences user interface. These settings can be set by creating a special "poweruser.txt" file in the Myth II preferences folder.

The format of the file follows a structure that consists of headers, in square brackets, and individual preference settings as key/value pairs. The following listing is an example of such a file:

```
[Section1.Name]
SomePref1=100
SomePref2=False
[Section2.Name]
SomePref3=some value
...
```

The following sections and keys are supported in Myth II 1.7.2:

[Net.Hosting]	
Key	Description
PortNumber	Port number used when hosting games. May be useful to bypass firewalls that block specific ports.

[Net.PluginLookup]	
Key	Description
WebUrl	URL used when looking up missing plugins. By default, Myth II 1.7 uses The Tain to find missing plugins, but this setting allows the user to specify a different URL to be used.

[UI]	
Key	Description
DebugControlBounds	Draws rectangles to indicate dialog control bounds - useful for those wishing to create custom interfaces. The default value is False.

[Renderer.DirectX11]	
Key	Description
ErasePreviousFrame	Erase the previous frame before drawing a new one. This prevents the 'hall of mirrors' effect seen under models and at mesh edges. The default value is False.
ClearColor	If ErasePreviousFrame is enabled, the color used to fill the screen (RGB).
MSAASamples	Enables multisample antialiasing with the specified number of samples. Typical video cards support 2, 4, or 8 samples. The default value is 1.
TripleBuffer	Enables triple buffering, which can smooth out the frame rate and prevent stuttering when V-sync is enabled. The default value is True.

[Renderer.OpenGL]	
Key	Description
ErasePreviousFrame	Erase the previous frame before drawing a new one. This prevents the 'hall of mirrors' effect seen under models and at mesh edges. The default value is False.
Use32BitTextures	Use 32 bit textures instead of 16. Currently only affects the colormap texture, but in the future will control all textures used by OpenGL. Defaults to True if landscape textures are enabled, False otherwise.
UseAppleClientStorage	Use the GL_APPLE_client_storage extension when appropriate. Mac only. The default value is True.
UseDepthTest	Use depth test to ensure correct rendering of models that overlap or intersect with the mesh. The default value is auto-detected to be False on some systems to provide better FPS, while set to True on all other systems.
UseShaders	Use shaders (OpenGL 2.0+) for increased performance. Defaults to True if the machine supports shaders (OpenGL 2.0 or higher), except on Intel cards where it defaults to False.
UpdateCMapChunked	Whether Myth will update the color map in chunks, or by sending the full texture. The default value is auto-detected to be False on some systems to provide better FPS, while set to True on all other systems.
ReuseContext	Specifies whether Myth will re-create the OpenGL context for every game or re-use the first one that was created. Defaults to False for Windows Vista or later, True otherwise. Supported in Windows Modern only.
ClearColor	If ErasePreviousFrame is enabled, the color used to fill the screen (RGB).

10. Credits

1.7.2 Team

Core Programming Team:

Alexei Svitkine, Core Programming, Linux Port
David Bregman, Windows and Graphics Programming
Andrew Lauritzen, DirectX 11 Graphics Backend

Additional Help From:

John Fernandes-Salling, Loathing Improvements
David Reta, Updated Interfaces, Updated Mapmaking Documentation, Quality Control
Rowan Davies, High-Resolution Icons & Updated Demo Epilogue
Michael Sheets, Updated Interface Graphics
Andrew Sumner, "Overrides Player Tint" Flag

Special thanks to all the testers who helped with finding bugs and testing features.

1.7.1 Team

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David Bregman, Windows and Graphics Programming

Additional Help From:

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David Reta, Interface Fixes and Tester Extraordinaire

Special thanks to all the testers who helped with finding bugs and testing features.

1.7 Team

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David Reta, Tester Extraordinaire
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Special thanks to all the testers who helped with finding bugs and testing features.

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Paul Jaeger, Programming
Bill Keirstead, Mac OS X Programming
Kyle Maclean, Programming
Michael Sheets, Interface Graphics & Tags
Andrew Sumner, Programming & Tag design
Alexei Svitkine, Programming & Demo

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Bo Lindbergh, 1.5.1's Mac keyboard layout code

