## Gameplay

- Judo throw now disarms the enemy
- Can now judo throw after dodging an attack
- Can now jump over low attacks
- Knife throw damage is done when knife is removed
- Wolves now only use knockout\_shield hit points
- Jump kick has longer range vs wolves
- Wolves can only take damage from weapons and jump kicks
- Characters can now be knocked over by ragdolls, does not apply to wolves
- Can only strangle and slit throats from behind, from the front you now do a judo throw on startled enemies
- Active dodge delay recharges when hit or dodged
- Can no longer cut throats with staff
- Knife throw does less damage to enemies that are aware of the attacker
- Thrown weapons do extra damage to non-wolves
- Can no longer catch weapons in air
- Improved AI search pattern
- Improved chase AI to better predict where the target will go while out of sight
- New group AI so everyone doesn't attack at the same time
- Al is now alerted instantly by loud sounds
- Better attack target selection
- Al is better at getting up in combat
- Al can attack characters that are hanging from a ledge
- Disabled AI running for help
- Combat AI tweaks
- Increased leg cannon damage vs rabbits
- Player doesn't interact with unconscious or dead characters if live enemy is within 10 meters
- Better item throw targeting
- Hold down 'e' to sheathe or unsheathe both weapons
- Slow-mo is activated when the last opponent dies
- Damage vignette
- Screen flashes when player takes damage
- Added knife disarming to the tutorial
- Allow skipping of tutorial step with the n key
- Various other tutorial improvements
- Wolves no longer want to pick up weapons
- Characters sometimes drop weapons when ragdolled
- Al characters no longer jump kick
- Ragdoll if hit ground during jump kick
- Characters can now have armor to help protect from certain types of attacks

- Sleeping characters have to actually get up before doing anything
- Enemies move more quickly to investigate combat sounds
- Enemies know who hit them with thrown weapons
- Can kill enemies by pulling out a stuck knife when ragdolled or block stunned
- Characters killed by throwing knives make noise, cut throat is quieter
- Plants no longer ragdoll the player

#### **Editor**

- Can now set FOV on NPCs

http://wiki.wolfire.com/index.php/Editor Interface#Parameter Editor

- Can now visualize NPC's FOV

http://wiki.wolfire.com/index.php/Editor Interface#Parameter Editor

- Combined utility and light tabs in spawner
- You can now edit translation, scale and rotation in object parameter editor http://wiki.wolfire.com/index.php/Editor Interface#Parameter Editor
- Removed unused ribbon items and updated the ribbon
- Re-enabled "add" cursor to make it easier to see when you're going to add an object
- Now updates dialogue title in editor on #name change in scene .xml
- Add text input listener support into angelscript (check aschar\_docs.h for more info <a href="http://wiki.wolfire.com/index.php/Scripting">http://wiki.wolfire.com/index.php/Scripting</a>)
- Make default values in dialogue txt placed under the title
- Progress on simplified dialogue editor, instead of showing the raw dialogue scripting, it shows the dialogue like a screenplay, and you can switch between them in recording mode using shift-up and shift-down. NOTE: The dialogue editor is no longer meant for editing the text that is being said, instead it should only be used to edit the locations of cameras, characters and so on, use a text editor to make changes to the text.
- Change input model in dialogue editor to be event based, this should make keyboard input work as expected in the dialogue editor
- Adding key to print all current objects in scenegraph
- Static NPCs can no longer be pushed around
- You can now make dialogues that only trigger on click

http://wiki.wolfire.com/index.php/Editor Interface#Trigger the scene

- Scripts can now ask the level for all objects that a given abstract object is colliding with (e.g. what hotspots is a player in, what players are in a hotspot) (check aschar\_docs.h for more info <a href="http://wiki.wolfire.com/index.php/Scripting">http://wiki.wolfire.com/index.php/Scripting</a>)
- Fix color picking on lights to start at current light color
- Hooked up newlevel and loadlevel buttons in editor ribbon

http://wiki.wolfire.com/index.php/Editor Interface#Home

- Show more info about selected object

http://wiki.wolfire.com/index.php/Editor Interface#Object Selection

- Testing sky tint and sky brightness level parameters
  <a href="http://wiki.wolfire.com/index.php/Editor">http://wiki.wolfire.com/index.php/Editor</a> Interface#Level Parameters
- Added file browser for level select on editor page
- Can control if dialogue icon is visible in-game through its properties
- Removed some files that no longer exist from the spawner
- Allow levels to load from WriteDir level folder
- Hotspots can receive script messages
- Ragdoll keys now only affect player
- Add the ability for the player to be invincible
- "Make\_all\_aware" makes characters permanently omniscient, can't escape from AI if they start out aware of you
- Can use select-similar on path points
- Create a property called "armor" and set it to "metal" to give that character metal armor
- Press f11 to print all level objects into console window

# **Graphics**

- New snow shader
- Updated plant shading to make it more unified and so it uses similar algorithms and lighting as everything else
- Updated lava effects, making it look more liquid
- Added non-linear-scaling detail maps can see on edged cube.xml
- Added head and torso movement while talking
- Improved shadow bias to reduce shadow artifacts like acne, peter panning, leaking
- Dynamic lights now affect plants
- Dynamic lights and ambient light multiplier now affect detail objects
- You can now add fog to levels, check level parameters to try it out
- Flames fade as they get perpendicular to camera
- Cypress trees now have custom normals for a smoother look
- Enemies don't writhe as long when killed by thrown knife
- Characters writhe around a bit if killed by sharp weapon
- Improved alpha to coverage usage by increasing alpha contrast, so it just smooths out edges
- Improved weapon sticking in characters
- Campfire uses much fewer ribbons
- Adjusted campfire flame decal
- Lethal sharp strikes are extra bloody
- Don't animate standing up if transitioning straight from sleep to throat cut
- Replaced old rabbit knife with a new, prettier one
- Staff materials read better
- Cypress tree texture upgrade
- Better blood on weapons
- Sky cubemaps are 16bpp HDR to avoid banding

- Can damage writhing characters to put them out of their misery

### Performance

- Improved animation retargeting performance
- Fixed performance issue with transforming many objects at once
- Batch temporary "AddLine" rendering, improves performance when selecting all objects in level for example
- Improved performance on particle rendering by using VBOring
- Implemented character occlusion culling
- GPU skinning now works again. If you see animation bugs and disabling "GPU skinning" in graphics menu fixes them please report it.

# Settings

#### http://wiki.wolfire.com/index.php/Configuring Overgrowth#Settings

- Added in Raw Mouse Input setting under Input, turn it on if you're having mouse issues
- Added Use ambient light volumes setting to Graphics
- Added Motion blur slider to Graphics
- Added Disable detail maps toggle to Debug
- Added Albedo Only setting under Debug for some \*\*extremely\*\* low graphics settings
- Added No Lights or Decals setting under Debug
- Added "Clear local write cache" and "List files that would be cleared from cache" buttons under Debug menu

#### Other

- Lots of new music, check it out in the Lugaru campaign
- Added cli arguments "clear-cache" and "clear-cache-dry-run" for clearing the local write directory cache files
- Added in portals that connect several levels to test linking levels together for a campaign idea, check out Red Shards in editor to test it
- No more log messages when loading models

## Bug fixes

- Made staff weapon blunt
- Can no longer dodge or block while dragging bodies
- Active ragdolls now make sounds on impact
- Potential fix to problem of game crashing in SendMessageToAllObjects
- Only display media mode option in editor mode

- Camera shake is now handled in character script, fixes camera shake in pause menu
- fixed cavearena COL model so you can no longer climb on an invisible wall in cave arena
- Fix crash on input event of unrecognized key
- Fixed particle compiling issue on Mac and Linux
- Fixed problem with false hotspot triggers on level reset
- Characters killed by arena hotspots no longer recover when the next round starts in the same match
- Escape no longer shuts down the game when in the main menu
- Fixed problem with wall-jumping, should fix infinite walljumping glitch
- Make sure all gui windows are closed when going back to main menu (fixes crash if parameter window is open)
- Fix crash on clicking mouse button index above 5
- Fix problem with characters getting stuck picking up weapons
- Leg cannon reach not extended by weapons
- Fixed problem with incorrectly visible character attachments and blob shadows
- Fixed some issues with dragging bodies
- Dialogue now resets when level resets
- Ledge hanging stops when starting dialogue
- Fix skeleton physics memory leak
- Characters can't see each other through plants again
- Fixed double mouse cursor in split screen
- Fixed problem with trying to drag body while attacking with knife
- Fixed bug where arms go crazy if you initiate dialogue while dragging body
- Fixed plant shaking which was broken for a while
- Fixed problem that could cause "sparkly" grass, because some pixels were discarded in depth prepass and not final pass
- Fixed some weird animation when flipping at walls or ledges
- Fixed shading problem on mirrored objects
- Fixed issue with too-sharp specular reflections
- Fixed crouch movement with spear or staff
- Potential fix for audio not playing sometimes on some machines
- Added physics override to facepalm and handneck dialogue poses to get rid of the rubbery effect
- Fixed digits for participants in dialogue editor in world
- Fix to make characters rotatable when editing dialogue
- Fix ability to select first row in dialogue editor
- Fixed overbright not being saved properly in color picker ui
- Fix clickability of participant nodes when creating a new dialogue
- And much, much more