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Subject: Changelist for scripts.dll 4.0

Posted by [jonwil](#) on Sun, 22 Jun 2008 07:55:47 GMT

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As you have no doubt heard, a new scripts.dll release is being made.

This will contain a bunch of new features and fixes written by the Tiberian Technologies team including code from Renegade Resurrection (and written by YRR), code by our shader and graphics expert Saberhawk and code from/written by the Black-Intel Team

Here is a list of changes already made to scripts.dll 4.0

Add newer nvidia cards to the graphics card list

Fix detection of zbias/depthbias

Change shader enable flag to a new "shader detail" slider (with 0 meaning "no shaders")

new memory manager, makes tracking down memory issues (memory leaks etc) easier (including leaks in renegade itself)

Change the name of bhs.dll to tt.dll to reflect the new name of the group.

Changes to the way d3d8.dll is loaded (its no longer called d3d8.dll) to fix issues with programs like TeamSpeakOverlay

Change to load the map mix file at map load time (allows adding new maps to the game/server without restarting)

Fix a crash that could occur on Vista/Server 2008

Fix a number of memory leaks in renegade

If you have a mouse with more than 3 buttons, you can now assign buttons 4 and 5 to any keyboard key in the same way

as you can assign buttons 1/2/3

Renamed "bhs.dll options" to "extended options"

Many bug fixes and cleanups to the code (too many for me to mention them all here)

Improvements to shaders.dll (less FPS drops, less "lag", less crashes etc)

Rewritten shader support (the old shader database editor and shader databases are going away, a new shader database editor with a new better shader database format will be added).

A number of new shaders from Saberhawk (I will let him go into details of the shaders)

This will be optional but if you want to and if you have the graphics hardware for it, you will get better looking vehicles than you get previously (and a better looking stealth effect)

advanced guard tower and obelisk script improvements to correct various bugs and issues

Some new scripts by campa.

New console command to reset shaders.dll (used for certain debugging and test purposes)

Major improvements to the screenshot code including getting rid of 99.99% of the "screenshot lag" (PNG is now the only supported screenshot format)

Support for remote screenshots for anti-cheat purposes

Cleanups to the exception handling (instead of generating a crashdump.txt, it now generates a windows Minidump which contains a lot more information about what caused the crash)

New engine call Get\_Fog\_Range which retrieves the current fog range

New engine call Do\_Objectives\_Dlg which displays a dialog similar to the existing chat history dialog but with the contents of a text file passed to the engine call. This is to be used to display e.g. objectives for a map that is different to "shoot the other guy"

New engine calls that do the same as the PLIMIT, MAXPLIMITD and PLIMITD console commands

Improvements to the shader state manager to make it faster

New engine calls and items in engine\_3d.cpp

D3DCOLOR GetD3dColor(Vector3& color); // Converts a Vector3 into a D3DCOLOR  
D3DCOLOR GetD3dColor(Vector4& color); // Converts a Vector4 into a D3DCOLOR  
TextureClass \*Create\_Render\_Target(int width, int height, WW3DFormat format); //Create a render target  
void Set\_Transform(D3DTRANSFORMSTATETYPE transform,Matrix4& m);  
extern bool \*FogEnable; //current fog enable value  
extern bool FogCustomColor; //is current fog color custom  
void ApplyZBias(unsigned int level); //set zbias  
void Clear(bool clear\_color,bool clear\_z\_stencil,Vector3& color,float z,unsigned int stencil); //clear device  
New engine calls and items in engine\_3dre.cpp  
extern ShaderCaps\* TheShaderCaps; //ShaderCaps pointer  
extern FontCharsClass \*\*Fonts; //fonts for StyleMgrClass  
Replaced old THUNK and IMPLEMENT\_THUNK with better ways of doing the same thing  
Added clamp and wrap to engine\_math.h  
New engine calls and items in engine\_net.cpp  
void Server\_Kill\_Connection(int PlayerID); //Drop a player from the game by cutting off their network link  
void Cleanup\_After\_Client(int PlayerID); //Cleanup after a player has been dropped  
New engine calls and items in engine\_obj2.cpp  
int Get\_Human\_State(GameObject \*obj); //Get the current state for a human object  
Improve the way the stealth state (i.e. that set by Commands->Enable\_Stealth) is sent over the network  
to reduce network bandwidth use  
Cleanups to the code for sending Set\_Model and Set\_Animation over the network, the code behind this now has less bugs  
Made the HUD console command turn off the player and team info, the custom HUD code HUD elements and the credits/time display  
Created new ini file called tt.ini. Pretty much all items from hud.ini except the custom HUD stuff and the custom dialog box color stuff is now in tt.ini.  
This allows the file check anti-cheat code to check tt.ini (which contains all the sensitive stuff) and not prevent use of custom HUDs  
Improvements to the custom scope code  
Changes to JFW\_Jetpack and JFW\_Jetpack\_Model to play an animation when in flying mode  
Change to JFW\_Escort\_Poke to only apply the shield changes for a certain player type  
Bug fixes to the ExpVehFac scripts  
Improved the custom keyboard config dialog to better match the way the normal renegade key config works  
Improved the nickname exploit fixes  
New hud.ini keyword DisableVehicleFlipKill which disables vehicle death when they flip over  
In hud.ini, as well as setting QuadXPos and QuadYPos, you can now set QuadXCenter and QuadYCenter. These new keywords allow you to create a quad that is positioned a certain number of units from the center of the screen (in x or y axis) e.g. for creating a box to go over where the time and credits are normally drawn. This (and the other changes made to the custom HUD code) should eliminate the need to produce HUDs that work at only one screen resolution.  
Fixed a buffer overflow in the custom HUD code related to the size of the section variable being too small.

Changed the custom HUD radar code to make it operate more like the renegade radar code. As a result, the RadarRotate, DrawCompassLine, CompassLineColor and CompassLineWidth keywords are no longer supported.

RadarRotate is now permanently on and the CompassLine functionality is no longer supported at all.

Also, objects that are further away from you in the Z axis will now be drawn with a small blip, just like renegade.

Plus, radar markers and objectives will be drawn.

Changed the way shaders get applied to models. You can now apply shaders either via an extra "mapper argument" in the texture mapper (even for items with UV as the mapper) or you can match texture names to shader names.

ShaderCheckMaterial is no longer supported.

Dropped all support for shader plugins

Corrected a crash/bug where having a custom weapon name/image and getting into a vehicle caused problems

Corrected the credits display for the custom HUD when inside a vehicle

Corrected the display of your bullets when inside a vehicle

A fix for weapon animations for flying infantry so that it works properly

A fix for a bug with setting the soldier state when inside a vehicle

A fix for the PT chatbox so it wont scroll down when new chat is added unless you are already at the bottom of the box

Fixes for bugs that could allow someone to buy items they werent supposed to (server and client)

Removed the Toggle\_Sorting console command (as it can be used to cheat and has no real purpose otherwise)

A fix so that the list boxes on the "team information" and "battlefield information" screens now have working scrollbars

Fix bug on maps with a repair bay where C4 gets stuck to the repair bay arc

Make the repair bay arc effect work correctly on maps with a repair bay (no more arc in the middle of the level)

A better fix for making the harvester not spawn invisible if the power plant is down and a harvester flies in. This means no more ugly wheels sticking out of the cargo plane.

A fix to make the "harvester under attack" sound play correctly

Better fixes to make the harvester harvesting arms animation play

Make the location you spawn at more random

Bluehell fix

Fix so that you wont die if you are standing right next to the weapons factory construction zone on some maps and someone buys a vehicle

A fix so you cant use a PT from inside a vehicle

Fix a bug where proximity C4 can blow up if placed next to a dead enemy soldier

A fix for C4 disappearing if attached to a vehicle

Fix "obelisk walk"

A fix for a bug where sometimes it is possible to switch into sniper mode at the same time as you switch weapons.

A fix for a crash to do with calling certain console engine commands with certain strings.

A fix for some possible crashes caused by bad (or too many) network packets (the UDP fix)

A change to the loading of mix files on startup. As of now, any mix file without C&C\_ on the front will be loaded as will any of the stock westwood C&C\_ maps if they exist.

Add hud.ini keyword so that mods like Reborn and RA:APB can specify a new prefix instead of

C&C\_ to be used by the above mentioned mix file load code (does not affect the code that displays the list of valid maps in the map list)

Anti-cheat to detect damage related hacks

A fix to stop the client from using weapons they dont have

A fix to make explosions faster on the client

The Black-Intel points fix (not sure exactly how to describe this one)

Various fixes to the "weapon bag" code (i.e. the list of weapons that every vehicle and soldier has)

A fix for the bug where weapons with infinite ammo (e.g. the pistol in normal renegade) do not start loaded

A bug fix for an issue that happens if you join a server after it has just gameovered

A bug fix for an issue with the amount of starting credits you get when you join

A change to the "next weapon" and "previous weapon" code so it will skip weapons that are empty. You can still use the number keys (1 for pistol, 2 for rifle etc) to access these weapons. This code will also not skip weapons that have a zero ammo count (e.g. a mod that has binoculars)

new script JFW\_3D\_Sound\_Custom\_2 Like JFW\_3D\_Sound\_Custom but it uses the position of the player who sent the message to this script as the position to play the sound at.

new script JFW\_Custom\_Objectives\_Dlg which uses the new do\_objectives\_dlg engine call to display an objective for the player that sent the custom to this script

new script JFW\_Send\_Self\_Custom\_On\_Key Same as MDB\_Send\_Custom\_On\_Key but sends to the object with JFW\_Send\_Self\_Custom\_On\_Key on it.

new script JFW\_Custom\_Send\_Random\_Custom Same as JFW\_Custom\_Send\_Custom except it only sends the custom if a random calculated percentage is greater than a specified percentage

new script JFW\_C4\_Explode A script that goes on a C4 object and, if the soldier who placed the C4 is of a certain preset, it creates a certain explosion preset

new script JFW\_Set\_Info\_Texture A script to set the "info texture" (a texture displayed as a full screen texture similar to a scope that is used to provide information to the player) for the player that sent the custom to this script

new script JFW\_Clear\_Info\_Texture A script to clear the "info texture" for the player that sent the custom to this script

new script JFW\_Set\_Time\_Custom Sets the game time when sent a custom

new script JFW\_Set\_Time\_Limit\_Custom Sets the time limit when sent a custom

new script JFW\_C4\_Sound\_2 same as JFW\_C4\_Sound except it plays the sound when damage > 0 instead of damage >= 0

new script JFW\_Empty\_Vehicle\_Timer>

JFW\_Empty\_Vehicle\_Timer\_Registrant("JFW\_Empty\_Vehicle\_Timer","Time:float,TimerNum:int");

new script JFW\_Heal\_Zone\_2 Will heal objects of a certain preset whilst they are in the zone

new script Reborn\_IsDeployableTank\_2 same as Reborn\_IsDeployableTank but does not change the weapon settings for the object at all

Fix for JFW\_Health\_Regen so it wont heal objects that are dead

Fix a bug with JFW\_Message\_Send\_Custom and JFW\_Message\_Send\_Custom\_Team so the scripts send the correct message

Correct a bug with JFW\_Time\_Remaining\_Sounds

Make JFW\_Vehicle\_Lock only kick someone out if that person is the driver (corrects issues with transports)

Correct a bug with RA\_Helipad\_Zone where it was possible to hover up and down and refill faster than you were supposed to be able to

The old RenAlert file checking code is gone, as is the old hud.ini CRC check, to be replaced by the new file checking anti-cheat code mentioned below

In addition to this list of changes already made, the following changes are currently planned/in progress for 4.0

New file checking anti-cheat code

Further work to track down and eliminate as many memory leaks as possible

Resource downloader

A new shader database editor

Support for all the new features on linux

Fixed broken connection message on linux.

Fix auto player renaming on linux

Fix any remaining crashes or slowdowns or other issues related to people with old PCs/graphics cards

Ship the First Decade renegade EXE file as a no-cd crack to avoid copy protection issues.

Add any scripts by Jerad2142 that are done in time

Add any scripts by Danpaul88 that are done in time

Finish the Scene Shader support (i.e. bloom etc)

A new shader database, normal maps and shader files so that the new shaders are actually used in normal renegade.

Further new shaders from saberhawk (some of which are for normal renegade, some of which are for mods like APB and Reborn)

Finish the fog code

Finish the "shader level of detail" system

A change to stop objects that are 100% hidden by other objects from being drawn (something called Occlusion Culling)

A set of hooks and patches to allow objects in w3dview to have shaders applied to them (so you can preview shader settings without opening the game)

A fix to the code that handles D3DRS\_ZBIAS to make it better

A change to make every object in the game world have a shader applied to it (similar to what C&C3 and other games do). And for those who say "that will make things slower", it wont, its actually going to be a speed improvement.

A fix for the "sniper scope lag" on the client

A change to prevent the issue where a player can get out of a vehicle just before its killed and deny the other team/player some of the points for the kill

Note that I do not have any ETA for when 4.0 will be released (or when it will enter beta testing) so dont ask.

Any questions about this changelog or any requests for features not on the list should be posted here if you want the TT team to see (and possibly act) on them.