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Subject: Details of some of the features in 4.0

Posted by [jonwil](#) on Wed, 30 Sep 2009 13:43:58 GMT

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Now using windows minidump crashdumps for debug information

Fixed many bugs

Complete overhaul of shader system

Rewrite of many parts of the graphics system to remove all vestiges of the old DX8 bits.

4.0 doesn't have any of the bugs and slowdowns and problems that plagued 3.4.4

Fixed a number of bugs in various scripts

Changed JFW\_Jetpack and JFW\_Jetpack\_Model to play an animation on the object as well as changing the model

Corrected many issues in the HUD and custom HUD code

Renamed bhs.dll to tt.dll

Changed all names mentioning bhs (readmes, logs etc) to mention TT instead

Rewrote many hacks and crappy pieces of code

Make the custom sniper scope work more like the stock renegade sniper scope

Started using the latest version of visual C++ (2008 currently)

Rewrote the memory manager to be faster and cleaner (and to produce more debugging info on debug builds)

Changed the way we hook into renegade (and call renegade functions and access renegade variables) to be faster and cleaner.

New scripts JFW\_Set\_Info\_Texture and JFW\_Clear\_Info\_Texture to use the "info texture" feature of tt.dll

New script JFW\_Set\_Time\_Custom and JFW\_Set\_Time\_Limit\_Custom to change the time and time limit

New script JFW\_C4\_Sound\_2 which is the same as JFW\_C4\_Sound except it wont play if the C4 does no damage.

New script JFW\_C4\_Explode which triggers an explosion when a C4 is planted by a certain object

New script JFW\_3D\_Sound\_Custom\_2 which plays a 3d sound on custom

New script JFW\_Send\_Self\_Custom\_On\_Key which sends a custom to the object its attached to when a key is pressed

New script JFW\_Empty\_Vehicle\_Timer which will destroy an empty vehicle if it remains empty for a certain period of time

Fixed bug where weapons with infinite ammo (such as the pistol) dont start loaded

Fix bug where damage code miscalculates points in some cases

Fixed the invisible C4 problem on maps like Glacier Flying

Changed all projects to use precompiled headers for system includes and global definitions

Fixed repair bay on Glacier Flying and other such maps to work correctly

Fixed bug where if the nod power plant is down and the harvester is destroyed, the new harvester is spawned invisible

Changed weapon selection so that weapon cycle skips empty weapons

Lots of ladder fixes (as far as I am aware ladders work fine 100% now)

Stealth improvements (so it doesnt glitch up when you are stealthed and then unstealth for example)

Netcode improvements

Support for using the 2 side buttons (i.e. buttons 4 and 5) on mice with 5 buttons. You can use them in any place you can use the normal mouse buttons

Removed linux FDS support (makes developing 4.0 much easier and cleaner)  
Cleaned up screenshot code to eliminate screenshot lag and to work better in windowed mode  
New script Reborn\_IsDeployableTank\_2 which is a clone of Reborn\_IsDeployableTank but doesn't change the weapons at all  
Various optimizations to make 4.0 faster  
Remove support for shader plugins  
Make screenshots output to a more sane location and with a more sane filename convention  
Eliminate all support for tga screenshots  
New script JFW\_Custom\_Send\_Random\_Custom which, on receipt of a custom, sends a custom to another object if a random percentage is less than a certain percentage  
Fix some bugs in JFW\_Message\_Send\_xxx scripts  
Add a new feature to display the contents of a text file for a player (intended for e.g. objectives display).  
Add new script JFW\_Custom\_Objectives\_Dlg for the above feature.  
Make spawn locations (including powerups and players) more random  
Fix for bluehell  
Method to change the player limit at runtime  
Add feature so that the team, battlefield and server information dialogs have working scrollbars  
Fixes to the PT dialogs  
Improvements to the ExpVehFac scripts  
fix so that standing right next to the WF won't cause your vehicle to get destroyed by mistake  
Fix for joining the server after game over  
Starting credits fix  
Fix for PT not working on rejoin  
Fix for C4 disappearing when stuck to a vehicle  
Move various hud.ini keywords into tt.ini so that we can cheat check tt.ini.  
hud.ini contains the custom HUD stuff and the dialog box stuff.  
Improved anti-cheat that checks sensitive files and does other good stuff.  
Will not have any of the problems of RenGuard but WILL check all 3d models, among other things.  
Moved damage calculation to the server for anti-cheat purposes.  
change Chat\_Hook and Host\_Hook so that they can veto sending of the message to the client(s)  
Fixes for RA\_Helipad\_Zone to make it harder to exploit by bobbing up and down in it  
Fix JFW\_Health\_Regen and JFW\_Armour\_Regen to not repair dead objects  
Fix definition of JFW\_PT\_Disable and JFW\_PT\_Disable\_Death  
Add some scripts by camp  
Improve particle rendering (we have plans for a shader/GPU based particle renderer in the future)  
Added more debug code in netcode, graphics and elsewhere  
New console commands for shader debugging  
Renamed "BHS.dll options" to "Extended Options"  
Shader detail sliders on "Extended Options" dialog  
New script JFW\_Heal\_Zone\_2 which is like JFW\_Heal\_Zone but which only heals for a specific preset  
Disable Toggle\_Sorting console command  
Fix so you can't use a PT from inside a vehicle  
Fix so that proximity C4 won't detonate if placed next to dead enemy soldiers  
Fixes to AGT and obelisk scripts to fix obelisk walk and other bugs  
Fix client showing/switching to weapons they don't own

Fix various memory leaks  
add tt.ini keyword DisableVehicleFlipKill, set this to true to disable vehicles from being blown up when flipped over  
HUD console command now hides all hud elements  
Replace bandtest.dll with a new dll from us that contains what used to be in d3d8.dll (those bits we didnt replace) and other code we need to load early.  
Load shaders.dll from bandtest.dll  
Make sure sniper scope is only turned on for the weapons it should be  
Fixes to make renegade run better on windows Vista/server 2008/Windows 7 including working correctly in limited user mode  
Removed SH\_FileVerificationControllerScript script  
Do not load mix files for maps other than stock maps unless the map is loaded (faster loading for people with lots of maps)  
New tt.ini keyword MapPrefix to set the map prefix (for mods)  
Fix JFW\_Vehicle\_Lock to not lock the vehicle if there is someone in it  
Fix JFW\_Escort\_Poke script  
Fog related changes and improvements  
Fix parameters for JFW\_Custom\_Send\_Custom and JFW\_Custom\_Send\_Random\_Custom  
Disabled WOL quick match (as its been broken since forever)  
add hud.ini keywords to change the weapon chart image colors  
Change the way the advanced game listing is sorted to properly support favorites and stuff  
Force shadow size to be power of 2  
New script JFW\_Custom\_Multiple\_Send\_Custom\_2  
Fix up turret lag fix code  
Fix sniper lag  
Changed 4.0 to not use std:: classes and headers anywhere  
Updated to use a newer d3dx dll  
Code to give players custom tags with a server console command to set the tag  
A bunch of fixes for widescreen resolutions  
Add some scripts by Danpaul88 including scripts for AR  
Fix to send max health/shield over the network  
Fix bug with secondary fire using wrong muzzle  
Fixed Test\_Cinematic  
Changed some dialogs to not hardcoded the team names anymore (team select dialog e.g.)  
Support mouse wheel in the sidebar  
Added some scripts from Zunnie  
Added some scripts used by RolePlay2  
hud.ini keywords to set various dialog colors not previously settable  
More netcode crash/exploit fixes (i.e. places where bad packets could crash the code)  
added anti-stealth-hack code  
New script JFW\_Custom\_Spawn\_Zone to spawn a zone on custom  
Change RA\_Credit\_Theft\_Zone to not trigger if the thief is in a vehicle  
Add engine call to change default presets for GDI/nod  
New script JFW\_Spawn\_Zone\_Created to spawn a zone on create  
Made APB Mad tank script ignore friendly base defenses  
Made APB nuke silo terminal script trigger the "you dont have the required security to access this terminal" dialog if the enemy accesses it  
New script RA\_Base\_Defense\_Chargeup which is for weapons that charge up (Telsa coil)

Make RA\_Base\_Defence\_Powered properly check that the power is enabled  
Make gap generator script check power before working  
New script JFW\_Submarine for subs in APB  
New script JFW\_Water\_Level for water level for JFW\_Submarine  
Make APB AA base defence scripts not target subs  
New scripts JFW\_Repair\_Zone\_Boats, JFW\_Repair\_Zone\_No\_Boats and JFW\_Boat to deal with naval units only repairing at naval yards and non naval units only repairing at repair bays  
Fixes to make 4.0 work better under PIX  
Make spy power plant zone bring radar down  
New script JFW\_Radar\_Low\_Power to make radar go down when power goes down  
All dlls now use the DLL version of the CRT  
Upgraded to newer libpng and zlib versions  
New script RA\_Conyard\_Controller\_Improved\_2  
hud.ini keywords to change the geometry detail limits  
Add base defence scripts that ignore stealth  
Make fire0anim and fire1anim fields for vehicles work  
New script JFW\_Vehicle\_Visible\_Weapon which basically sets the animation frame for the vehicle to the number of bullets in the gun (e.g. for vehicles with rockets or missiles visible on them)  
New feature where vehicles remain teamed when player leaves (intended to solve an exploit where people get out just before the vehicle dies to deny the other side points)  
Add tt.ini keyword to make the above feature optional  
Add hook so that you can hook into the Think pathway (and run something every frame)  
Add tt.ini keyword to change draw distance  
A bunch of spy fixes (to make spies better)  
Beginnings of new resource downloader, auto-map-downloader etc  
Beginnings of totally new SSGM  
Support more texture formats in dds files  
Removed swap scores on game end if the losing team is out of players.  
Fix XWIS delay on .pkg files  
Added possibility for players to send messages to the host by typing "/host <message>".  
New script JFW\_Radar\_Jammer\_Sound for radar jammer sound  
Fix radar jammer scripts  
Fix RA\_Damaged\_Credits  
Make spies get the allied ore dump  
Fix JFW\_Pilot\_Repair  
New script JFW\_Model\_Animation  
C4 no longer gets defused when the owner leaves the game  
Added KICK2 console command to force-kick a player  
New script JFW\_Startup\_Custom\_Self  
Add tt.ini keywords to disable nuke and ion beacon weather effects  
Add tt.ini keyword to disable reload when weapon is empty  
New script JFW\_Moon\_Is\_Earth and functionality. This will cause the moon code to read texture named fullearth and partearth instead of fullmoon and partmoon.  
For maps that are set on the moon  
Fix JFW\_2D\_Sound\_Damage  
Change to not reload a weapon when the weapon is full already  
New scripts JFW\_Set\_Skin\_Custom, JFW\_Set\_Armor\_Custom, JFW\_Message\_Send\_Powerup, JFW\_Soldier\_Powerup, JFW\_Vehicle\_Regen\_3

New script JFW\_Points\_Custom  
New hud.ini keyword to change the decal limit  
hud functionality to display the center bullet and health counts separate from the rest of the HUD.  
hud.ini keyword to disable this new object  
Feature to store registry keys and data files (logs, thumbnail files, screenshots, crashdumps etc etc) in locations that non-admin users can write to.  
Hack wolapi.dll to read and write from above locations  
Hack game to load wolapi.dll from local ren folder  
Hack LE to load new ttle.dll file  
Added "worst FPS" diagnostic  
Send serial hash over the network for possible ban use  
Various fixes connected to vehicles with damage meshes and damage caused on the FDS  
Change RA conyard script to repair less if power is low  
new tt.ini keyword that will allow PTs marked with the regular "I am a PT object" flag to load the sidebar instead of the PT  
Add build date for scripts to the crashdumps  
Make QUIT and EXIT console commands do the same thing. On client they will do what EXIT does now, on FDS they will do what QUIT does now  
Make sidebar/PT dialogs close if the soldier using them is killed  
Removed BAN, KICK and ALLOW console functions, to be replaced with something better later  
New custom ConstructionYardGameObj object for a construction yard building controller  
Added new PT pages for air and naval (to be used by the new building controllers that are being done)  
Change how PT data is sent over the network to make it use less bandwidth and to suck less  
New script RA\_Credit\_Theft\_Zone\_Timer for adding a timer before the thief can steal  
Added option to disable audio when renegade does not have focus  
Removed bandwidth-based player limits.

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