LIVE VIEW PLUGIN
FOR RFACTOR
documentation
for version 2.6

Document version 2.0

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SimRacing PL

INTRODUTION

LiveView plug-in is born to save racing session results periodically. It makes possible to generate live standings during sessions. It is native solution to provide data for LiveView system released as part of Simracing League System and as stand-alone one.

Note, that this plugin only saves data into local file system. To get it working with web solutions, you have to use another tool which will upload data generated by the plugin. This job can be done by LiveViewReporter (see support forum)

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Support

Support and answers on LiveView related questions is provided on forum:
http://prs.simracing.pl/forum/f130/

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Simracing League System

rFactor's LiveView plugin and LiveView Reporter were written and dedicated to work with Simracing League System. SLS is a system to handle own leagues, providing results, standings and much more. SLS is distributed for free as web based application using mySQL 4.0 or greater. It supports all known racing simulations (GPL, NR2003, LFS, GTR, GTR2, Race, Race07, GTL, rFactor).

Live View

LiveView was developed as part of Simracing League System to show live standings during race event. Now, LiveView is released also as stand alone system. It is based on php parsers and Flash visualization.

For more information see:
http://liga.simracing.pl (our league system, system for testing RCs)
http://prs.simracing.pl/forum/f53/ (SLS and LiveView support forum, including utilities like LiveView Reporter)

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INSTALLATION

Requirememnts

- rFactor 1.250 or 1.255
- Microsoft Visual C++ Package – only for systems where this package is missing, ie W2003 server

Installation

To install this plug-in, copy content of rFactor directory found in archive into your rFactor root directory
Installed files:
root: LiveViewPlugin.ini
plugins\LiveViewPlugin.dll
support\LiveViewPlugin\documentation.pdf
support\LiveViewPlugin\history.txt

Note: due to undefined rfactor server behavior when the last driver leaves the server, please set "Pause While Zero Players" variable in multiplayer.ini to 0 (zero). Otherwise it is possible that plug-in will not report empty server.

Uninstallation

To uninstall/disable this plug-in, simply remove:
- liveviewplugin.dll file from plugins subdirectory

To clear out other files related to this software remove
- LiveViewPlugin subdirectory from Support subdirectory
- remove LiveViewPlugin.ini from rFactor's root directory

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CONFIGURATION

To configure this plugin, use LiveViewPlugin.ini which should be placed in rFactor's root.
This file should looks like this:

--- begin of file --

```
//[LiveViewPlugin configuration file
//(c)2006-2008 Michal Kozusznik]

SaveDir=UserData\LOG\Results\
Period=15
SkipLaps=0
FCY_Log=0
```
--- end of file --

Save dir is the path where plug-in will save the results.
It may be useful if your www based system is installed on the same machine as rFactor server.
The path may be relative (to rFactor's root) or absolute (contain drive letter)

Period is a time span in seconds with which the results will be saved. Do not set it to too small value, especially if you want to use it with some FTP uploader (like LiveView Reporter).

SkipLaps makes detailed lap data will be not reported into result files. It saves data traffic if you don't need lap data on webpage.

FCY_Log enables logging of Full Course Yellow occurrences.

If configuration file is missing, or single parameter is missing, default values are used (listed in file example).

IMPORTANT: The last line MUST be finished by new line character (Enter).

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HOW DOES IT WORK

The dll with defined by ISI interface is attached to rFactor game or dedicated server and called when racing event starts. rFactor application provides some data for this dll, which makes possible to do some calculation or simply write this data into file.

LiveView plug-in writes data each X secs, where X is defined in configuration file or 15 secs if this file is missing. 15 seconds is enough for live standings generated on websites.

Plugin stores result file into path defined in configuration file. If configuration is missing UserData\LOG\Results is used. File name has following format:

PLRNAME_yyyy_MM_dd_hh_mm_ss_trackname_SN_live.txt

where:
PLRname – name of PLR file used by a the server. (excluding .PLR suffix).
yyyy_MM_dd_hh_mm_ss - session start datetime
trackname - name reported by game. All double comas, slashes and backslashes found in track name are replaced by underscore character
SN - session short name. S1/S2/S3 - practices 1, 2 or 3, Q1/Q2 - qualifications 1 or 2, SW - warm-up, SR - race

Note, that file is firstly stored with name with suffix .tmp. Then when whole file is saved, it is renamed to final one, with suffix .txt.

Result file is saved in format similar to one known from GTR game. Detailed description of the format is provided bellow. All decimal numbers uses dot character as decimal separator.

Note, that rFactor v1.250 and v1.255 reports DarkCloud, Raining, OnPathWetness, OffPathWetness and Wind but values of these parameters are always set to 0 (zero).

-- begin of file --

```
//[SLS reporter (c)2006-2008 Michal Kozusznik]
[Header]
Game=rFactor
Version=2.6                       // version of plug-in

[Server]
ServerPLR=DedicatedServer         // name of .PLR file used by current server
                                  // (excluding .PLR suffix)
LobbyName=Your Server             // Server Name shown in Lobby
ModName=F1 1979                   // name of the mod running on the server
Aids=(0,0,0,0,0,0,0,0,0,0,0)      // array of helps enabled on the server. See below

[Session]
Scene=Essington GP Circuit        // track name provided by rFactor
TrackAIW=ESSINGTON_LONG.AIW       // AIW used with this track
TrackLength=4710.6914             // track length in meters
StartTime=2006-12-15 18:33:29     // session start time in format yyyy-MM-dd hh:mm:ss
SessionTime=45.012802             // session time progress in seconds
LengthLaps=8                      // session length in laps. -1 if not defined
LengthTime=60                     // session length in time (minutes). -1 if not defined
DarkCloud=0.00                    // cloudiness of the scene (0-100 %)
Raining=0.00                      // amount of raining (0-100 %)
AmbientTemp=27.0                  // temperature of environment
TrackTemp=32.5                    // temperature of track
OnPathWetness=0.00                // amount of water on driving path
OffPathWetness=0.00               // amount water out of driving path
Wind=(0.0,0.0,0.0)                // wind speed
```

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```
Session=Race                    // name of session. Available values:
                                // Practice1 | Practice2 | Practice3 |
                                // Qualification1 | Qualification2 | Warmup | Race
GamePhase=GreenFlag             // Phase of game. Available values:
                                // Preparing | Recon | GridWalkThrough | FormationLap
                                // Countdown | GreenFlag | SessionOver
                                // FullCourseYellow | SessionStopped | Unknown


YellowFlag=None                 // State of yellow flag process. Available values:
                                // None | Pending | PitsClosed | PitLeadLap
                                // PitsOpen | LastLap | RaceHalt | Unknown
SectorYellowFlags=(0,0,0)       // in witch sector temporary yellow flag appears.
                                // 0 means no flag. Other values means YF
FCY_Log=(……)                    // log of Full Course Yellow. See bellow


[Slot000]                       // there is no guarantee that number of
                                // slot is linked with driver!
Driver=MaXyM                    // driver name (driver's profile name)
Vehicle=Giancarlo Fisichella    // name of car. I guess it is Description value
                                // from veh file.  are mess in various mods.
VehicleClass=CTDP F1 2005SE     // Class name of the vehicle.
                                // Use this rather than Vehicle to name car type
IsAI=0                          // 1 if driver is AI. Note, if driver leaves car during
                                // race, it will be displayed as AI
Position=1                      // Driver's position (works for all sessions)
Laps=0                          // laps of driver. Increased when driver begins the lap
InSector=1                      // Number of sector (1, 2 or 3)
                                // in which a driver is located
Sectors=(17.934, 27.416, -1.000)    // times of current sectors. -1 – no time.
                                     // See bellow for more
BestSectors=(17.797, 27.399, -1.000)// best sector times. -1 – no time.
                                      See bellow
LastLapSectors=(17.934, 27.416, -1.000)   // sector times of last (previous) lap.
                                          // -1 – no time.  See bellow
BestLap=78.475                  // best lap time in seconds. -1 if time is unknown
LastLap=-1.000                  // last lap time in seconds. -1 if time is unknown
Pitstops=3                      // number of pitstops (this value may not be correct!)
InPits=0                        // whether driver is in pit lane area
TimeGapToLider=0.000            // time may be negative but also positive
                                // for drivers in pits
LapGapToLider=0
TimeGapToPrev=0.000             // time may be negative but also positive
                                // for drivers in pits
LapGapToPrev=0
LapDistanceTravelled=164.176    // distance from S/F line to point where car is located
                                // now (meters). Value may be negative when driver is
                                // in pits or car is in garage


FinishStatus=None               // driver's status: NONE means he didn't went out
                                // from pits or goes without problems.
                                // Other statuses: DNF, DQ, Finished


Lap=(A,B,C,D,E)                 // array of detailed lap data
Lap=(A,B,C,D,E)                 // see bellow for description
….
…
[Slot001]                       // next driver
....
[END]                           // end of file, to make sure that whole file
                                // has been saved or uploaded into ftp, etc
---------------------------------------------- end of file -----------------------------------------------------
```

Aids

This variable contains 11 values, which represents 11 assists (disabled or enabled)

Assists are stored in following order: Steering help, Break Help, Traction Control (TC), Antilock Brakes (ABS), Spin Recovery, Invulnerability, Auto Pit, Opposite Lock, Auto Clutch, Stability Control and Auto Shift. Zero value means disabled. Other (positive) values represents maximum allowed level of an assist.

FCY_Log

This value may contain pairs of time values:

FCY_log=(X1-X2,Y1-Y2…)

Where: X1 is Full Course Yellow start time, X2 is restart race time; and so on. Numbers are decimal formatted with 3-digit precision. Note, logging must be enabled in configuration. Otherwise it will contain no values.

Sectors

Sectors are filled in following way:
- If driver starts 1st lap, all sectors are -1
- After finishing 1st sector (driver is in second one), time of 1st sector is shown
- After finishing 2nd sector (driver is in third one), time of 1st and 2nd sector are shown
- After finishing 3rd sector (driver is n 1st sector again) all sectors are shown
- When driver finished 1st sector, only 1st sector is shown. Others get -1 value
- Etc

BestSectors

Contains best sector times collected during single session. If all sectors has values others than -1, sum of these values gives optimistic prediction of driver's best time.

LastLapSectors

Contains sector times of the last (previous) lap done by driver.

Detailed lap data

is similar to format known from GTR. Single lap contains 5 values

Lap=(A,B,C,D,E) where

A – lap number, indexed from 0 (zero)

B – integer, lap time

C – decimal, time of sector 1

D – decimal, time of sector 2

E – decimal, time of sector 3

Values B-E may be set to -1 if driver didn't finish the lap yet.

Values C-E may be set to -1 if driver cut corner in this sector

In case of practice, qualification and warm-up sessions, only full/valid laps are stored. Means, laps without laptime are not reported.

Note, that lap details may be not present in the result file in relation to plug-in settings (SkipLaps).

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Closing server

When the game quits the race or dedicated server application is closed, new file is generated:

PLRNAME_yyyy_MM_dd_hh_mm_ss_disabled_SN_live.txt

File name format is the same as for common session but:
- new time is generated – it is closing datetime
- 'disabled' string is used instead of track name

Here the content of this file:

--- begin of file ---
```
//[SLS reporter (c)2006-2008 Michal Kozusznik]
 [Header]
Game=rFactor
Version=2.6                    // version of plug-in

[Session]
CloseTime=2006-12-15 18:44:00
Session=Inactive

[END]
```
--- end of file ---

Known issues

Unfortunately there are some issues. Mostly related to rFactor abilities.

1. LengthTime is given by game in wrong way. Probably it contains also pause between sessions or something like this. When this amount of time is small, it will disappear during calculation. But sometimes may be visible, for example may turn into 123 min when 120 min of race is set.

2. LenghtTime is set to -1 when drivers are on formation lap (doesn't matter what type of start is defined).

3. FinishStatus is set to NONE also for drivers who didn't start the race (they stay in boxes)

4. Pitstops may show untruth values. The same as PITS tag in rFactor result file. Maybe due to buggy tracks

5. LapDistanceTravelled may have negative values if car is in boxes. But on pit lane it will have positive value

6. Vehicle contains description of vehicle defined in DESCRIPTION field of veh file. Because of naming inconsequence different mods will show different information. To report car type use VehicleClass field which gives closer information. At least it is related to mod to which the car belongs.

7. It is possible that "inactive session" content will not be written into file in case of unexpected crash of game/server.

APPENDIX B: EULA

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The Authors refers to the group of creators of the Software, represented by Michał Kożusznik.

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