TWR SIM+ - SIMU PAR

Aerodrome control tower simulator [pd]

Features

- ATC simulator suitable for all types of air traffic control (ACC, APP, TWR)
- editable aircraft performances
- easily configurable and editable scenarios (areas, fixes, routes, ...)
- real data from AIP, easy updates
- simulation time and weather information window
- broad scale of setting and modification possibilities
- standalone or networked use
- interface for third party data feeds

- unified GUI for all roles (PP and ATCO)
- pseudopilot control via command line and mouse inputs
- intuitive and simple commands
- sequence of commands with events
- editable command macros
- simple route planning
- enhanced Aircraft info window for aircraft details and control

- main radar window and independent second radar window with individual settings
- configurable radar revolution (refresh rate) for each radar screen
- measuring tools, range rings, trajectory prediction

- integrated Voice Communication System with call/bell feature

- 3D graphical visualisation
- realistic Sun, Moon and stars movement considering simulator time and date
- realistic day and night sky lighting
- various types of clouds
- fog and visibility setting
- possibility to extend visualisation to three screens/windows
- models of many aircraft and vehicles
- binoculars
- target tracking
- possibility to show target callsign and trajectory in visualisation

- Precision Approach Radar window
- possibility to set PAR location at the airport
- configurable help lines and parameters
- switch between units (NM,ft and km,m)
- synthetic target information (switchable)
- blip size according to aircraft type and distance
- realistic clutter with definable clutter areas

- simple use and installation
- no special HW required
- ideal for multi screen workstations
- continuous development and upgrades

User interface

The user interface consists of several parts:

- Main window which includes:
  - Radar screen
  - Aircraft information window
  - EFIS (electronic flight information system)
  - Weather information window
  - Target list
  - Point/Area/Route list
  - Command line and command history
  - VCS window
  - Debug window
  - Menu and Toolbar
- 3D Tower view
- Map overview (second radar window)
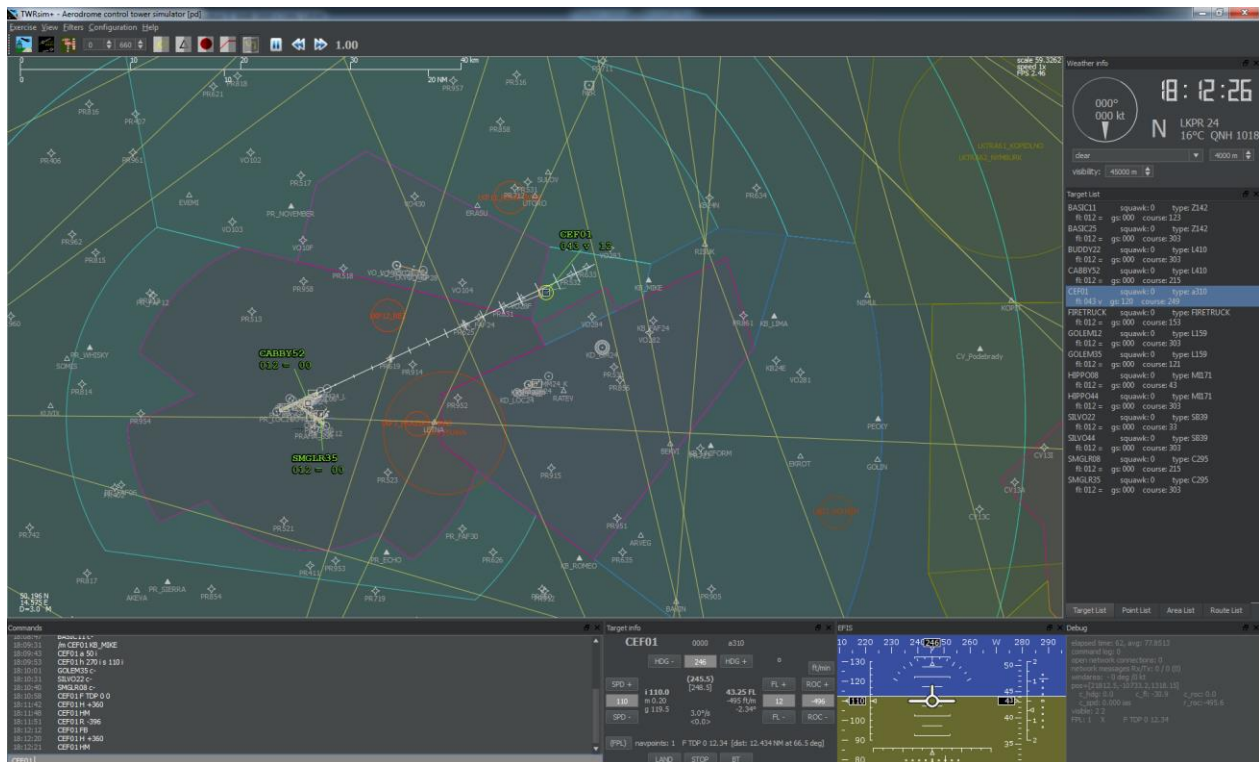- Precision Approach Radar (PAR) view and PAR configuration window
- Help and configuration window

Figure 1: Main window

The radar screen shows the following:

- targets (aircraft, ground vehicles, …)
- points (waypoints, navaids, …)
- areas (sectors, CTR, TMA, CTA, FIR, …)
- routes (runways, taxiways, RNAV routes, air routes, SIDs, STARs, …)
- measure tools (measure vector, runway center line, range rings, …)

The radar target contains target actual position, speedvector, history points and label. The actual selected target is indicated by a ring around it.

The target label consists of the callsign, actual flight level, indication of vertical movement and the ground speed (x10 kts).
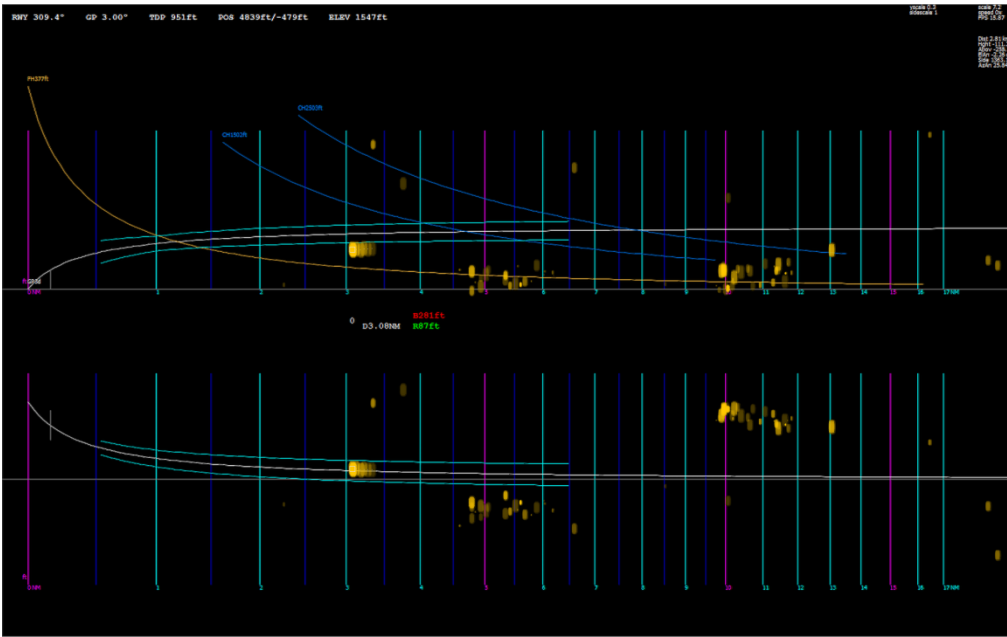

Figure 2: PAR window

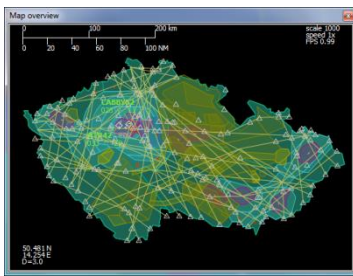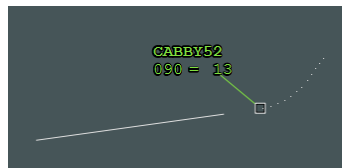

Figure 3: PAR config.

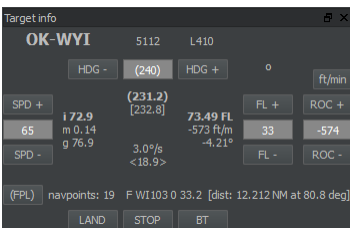Figure 4: Map overview

Figure 5: Radar target

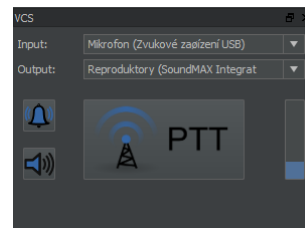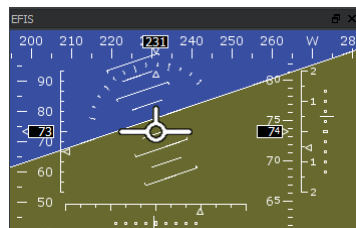
Figure 6: Target info / PP control and EFIS

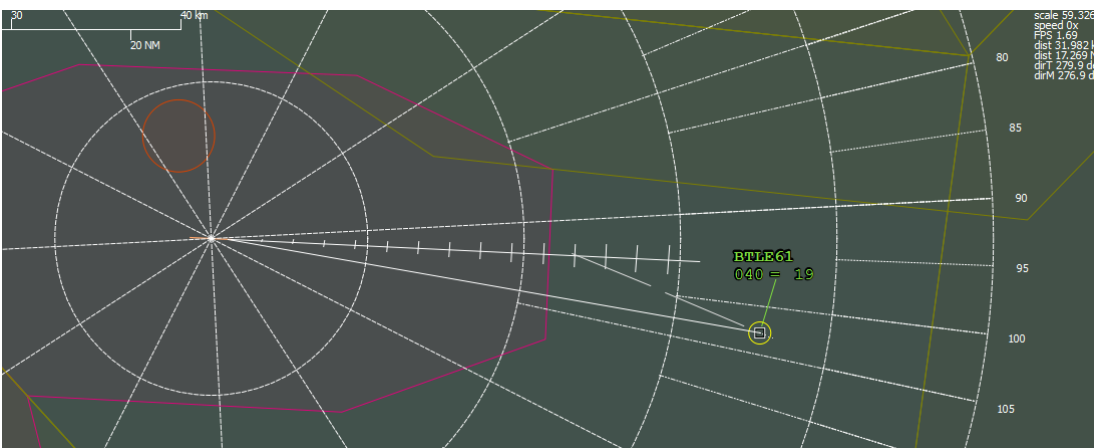
Figure 7: VCS window and PTT indication

Figure 8: Measure tools

Figure 9: 3D Tower view (daytime)

Figure 10: Working position example

Figure 11: Working position example

Minimal hardware configuration

x86 processor 1.8 GHz
1 GB of RAM
graphics card with 256 MB of RAM
  and OpenGL support
operating system Windows XP
screen resolution 1280x1024
extended desktop (recommended)
200 MB of HDD space

Credits

TWRsim+ - Aerodrome control tower simulator [pd]
(Version 1.479 Square edition)

Software by Petr Dvorak [pd] © 2007 – 2017
www.papadelta.cz

Application requires Qt libraries and Visual C++
Redistributable package for VS 2008.
Qt libraries are distributed under GNU LGPL v2.1.
No installation or third party software is required.