Tuner for PSP®(PlayStation®Portable)

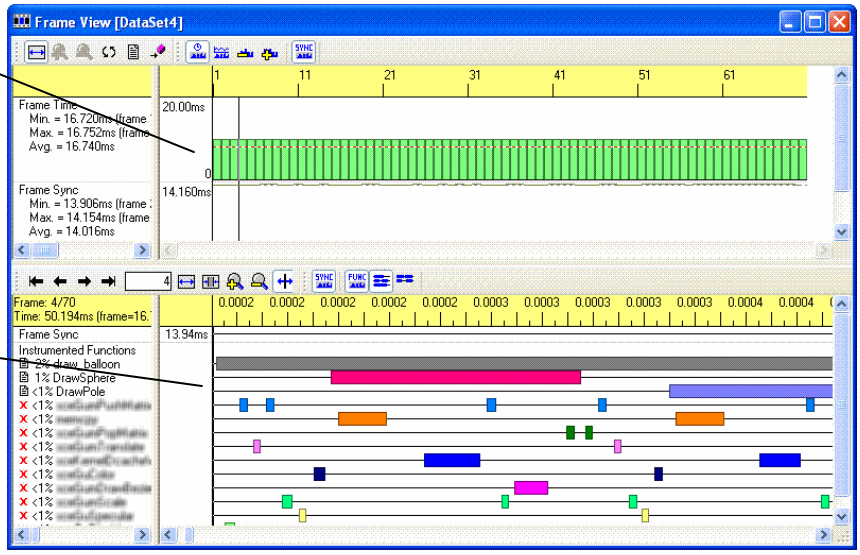
Tuner for PSP lets you capture and visualize program behavior so that you can eliminate conflicts and bottlenecks in your code. High performance games can now be achieved with less guesswork.

- Capture data while playing your game in real-time.
- Captures function times per frame (including the sync function), user markers and performance counters.
- Instrumenting functions on-the-fly so recompiling and redownloading is not required.
- Intuitive frame-based display of captured data highlights bottlenecks.
- Runs completely in software - no special hardware required.

Tuner for PSP is available separately or as part of the ProDG for PSP suite of tools.

Game view – simple color scheme allows bottlenecks to be easily identified

Frame view – highlights a single frame at a time



Capture modes

Tuner allows you to play your game in real-time. There is no need to modify your source code and even works with optimized release builds. Two data capture modes are supported: fill buffer and circular buffer.

Data captured includes

- **PC Sampling** - Tuner is capable of performing sample-based profiling by recording the value of the program counter (PC) at a rate of 25 kHz. This gives a general overview of which functions are being used the most during a capture. This information can then be used to guide the instrumented function trace to get absolute timings.
- **Function Instrumenting** - Once you have identified functions of interest, you can instrument parent or child functions on the fly with no need to recompile code or redownload your executable. This greatly reduces time to discover and investigate problems. Tuner also includes support for recursive instrumented functions.
- **Thread Trace** - Tuner records all the thread context switches that happen during a capture. Each thread is shown as a period of running or stopped. This information shows how much time is being used by each thread and how costly giving up your time-slice has been.

- **User Markers** - You can mark parts of your code with user markers so you can time your subsystem's contribution to a frame. Tuner also includes support for recursive user markers.
- **Performance Counters** – These hardware counters keep track of various system performance metrics. By capturing and displaying the counter values across your frame it's possible to highlight code causing performance hits (e.g. I/D cache misses, stalls, uncached loads and stores, etc.).

Advanced user interface

Captured data can be viewed in the game and frame view. In the game view all captured frames are visible and drops in frame rate are clearly displayed. Individual frames can then be selected to view the relationship between function times, user markers and the sync function. Double-clicking on functions in the frame view takes you to the source code with static pipeline analysis and hit counts per source/disassembly line. Captured data can be saved to file for later comparison with improved code.

Documentation

Comprehensive documentation is supplied in PDF and HTML formats. Technical articles and FAQs are available in the technical support zone of the website.

Technical support

Technical support is provided via e-mail and telephone during normal UK business hours. We also provide support via the technical support zone of our website 24 hours a day, 7 days a week.

Systems requirements

- Windows XP Professional
- Sony Computer Entertainment PSP Development Tools

For more information visit: http://www.snsys.com/psp/tuner.asp
To request trial versions of software e-mail: contact@snsys.com

SN Systems
1st Floor Hartwell House – 55-61 Victoria Street – Bristol – United Kingdom – BS1 6AD
T: + 44(0)117 929 9733 F: + 44(0)117 929 9251 www.snsys.com