Fujitsu Semiconductor
Embedded Solutions Austria

Factsheet
CGI Studio Analyzer

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# Identify Performance Optimizations directly on Target Hardware

CGISTUDIO
Analyzer

CGI Studio Analyzer is a tool for measurement and analysis of Candera graphics application performance. Measurements can be performed on simulation or directly on target hardware. The measurements can be displayed and analyzed in various ways. Live monitoring of target systems allows immediate analysis of measurements and identification of performance bottlenecks.
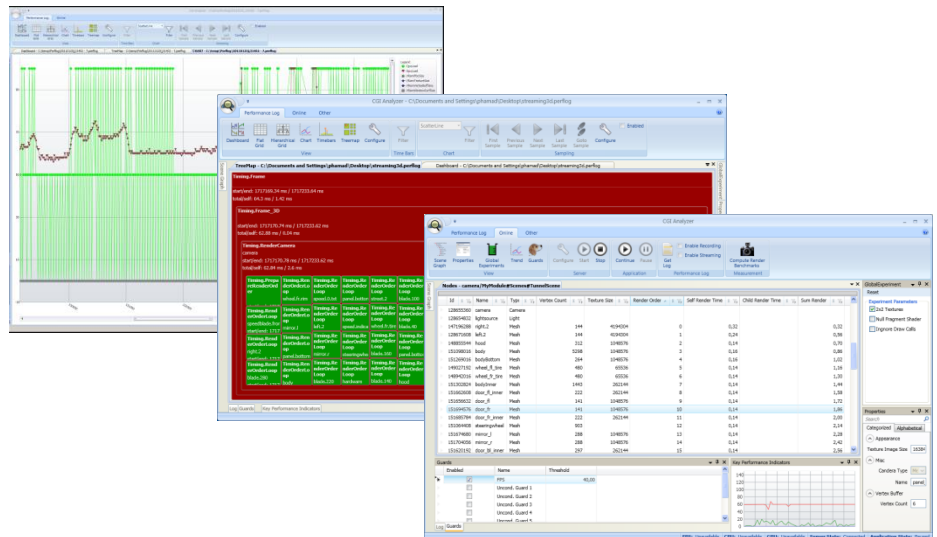
## Beneficial return with Analyzer
- Support for efficiently tracking down performance bottle necks
- Works on a level above OpenGL, specifically tailored for Candera applications
- Open measurement framework – developer can record and analyze customer-specific performance indicators

## Measurement and Displaying
- Measure performance and store in performance log
- Open performance log and analyze performance
- Display a performance log
  - Display of recordings in flat grid
  - Display of recordings in hierarchical grid
  - Display of recordings in chart
  - Display of recordings in tree map
  - Display of recordings in time bars view

## Sampling
- Novel way of navigating data

- A sample is a set of recordings
- Possibility to navigate between samples
- Several sampling strategies
  - Duration sampling
  - Event sampling

## Live Monitoring and Experiments
- Online-Mode: Live-Monitoring of performance data
  - Live-monitoring of target system
  - Immediate analysis of measures
- Experiments
  - Supports analysis of performance bottlenecks
  - Immediate response off counter-measure effect
  - Global Experiments
    - 2x2 Texture replacement: Determines texture bottlenecks
    - Null-Shader replacement: Determines shader execution bottleneck
- Scene Element based measures
  - Provides detail information about bottleneck caused by designs

- Render duration for each element in scene
- Cumulated render duration for element groups
- Scene Graph Inspection
  - Provides information about the scene graph structure per active camera
  - Provides information about scene graph nodes
- Guards
  - Allow pausing of Candera application, if FPS drop below specified level
  - Allow pausing if Candera application through statement in application code

## Performance Dashboard
- Export of performance log data to Excel or CSV format
- Performance Dashboard
  - Display overview of currently open performance log

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