



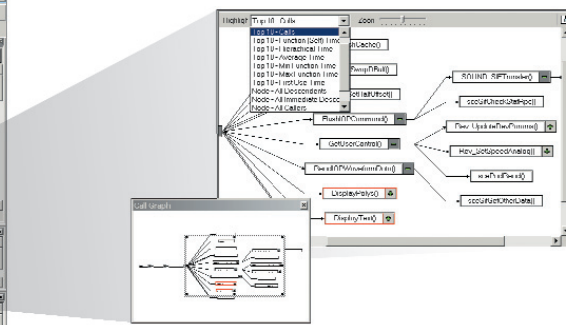
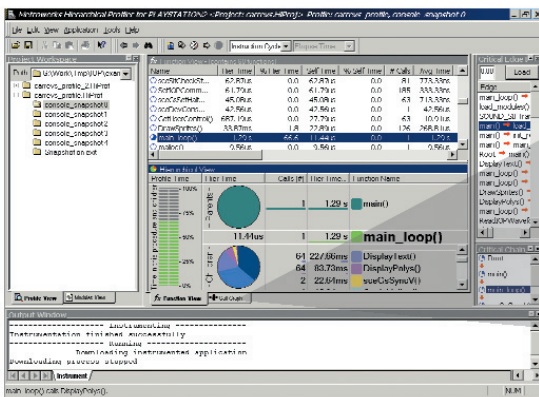
# CodeWarrior™ Analysis Tools for PlayStation®2

## Overview

Creating a great game doesn't stop when the code is written. Graphically analyze and optimize your game with CodeWarrior™ Analysis Tools (CATS) for PlayStation®2. Using the code coverage tool to measure code execution, the hierarchical profiler and the IOP profiler to find bottlenecks, you can optimize your code for the highest possible performance.

## Benefits

- > The Hierarchical Profiler (HiProf) is an effective solution for tuning an application and showing code inefficiencies, saving valuable time during the QA process.
- > CATS enables you to profile your binary application without needing to pre-process and re-compile your game, saving you valuable development time
- > Code Coverage Tool measures and analyzes test suite coverage of your code, improving quality assurance
- > The Hierarchical Profiler provides an unparalleled granularity in pinpointing performance bottlenecks, enabling your game code to run faster and more efficiently.



## Hierarchical Profiler

- > Enhanced profiler controls and options
- > Tracepoints now supported for C++ programs
- > Show execution time based on function call architecture
- > Provide call tracking from routine to routine
- > Select time stamping measurement or cycle counting measurement
- > Source-line level profiling
- > No preprocessing or recompiling required
- > Much more accurate than sampling-based profilers

## Call Graph

- > Enhanced GUI for easier navigation
- > Call-graph window, showing graphical display of procedure call tree
- > Zoom button allowing easy navigation in the call-graph window
- > Highlights allowing you to quickly identify such features as top ten calls, node attributes and critical chains

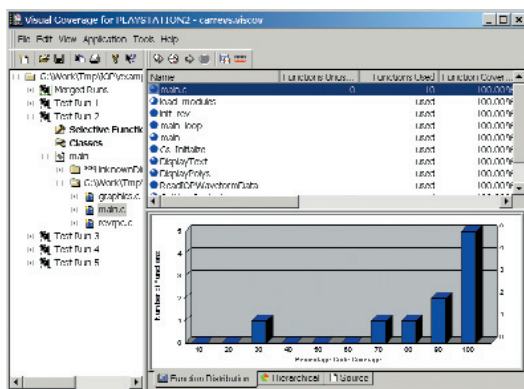


# Warrior Analysis Tools for PlayStation®2

Function	Module	Hits	% Hits
(idle)		2305	48.071
JAPFilter	revtest_driver	1771	36.934
-	Multi_Thread_Manager	348	7.268
Distortion	revtest_driver	187	3.9
-	padman	49	1.022
-	Interrupt_Manager	46	0.958
-	IOP_SIF_rpc_interface	24	0.501
-	sio2man	11	0.229
CopyWaveform	revtest_driver	11	0.229
-	Module_Manager	9	0.188
RevSpeed	revtest_driver	8	0.167
InterpolateValue	revtest_driver	7	0.146
ConvertData	revtest_driver	4	0.082

## IOP Profiler for Audio and Peripheral Controls

- > Measure performance of the code running on the IOP processor
- > Profile IOP modules at function level
- > Simultaneous profiling of all modules
- > Profile while running an entire application or a single IOP module
- > Take profiling snapshots and see information displayed in a table
- > Easily export IOP performance information to analyze it graphically



## Code Coverage

- > Tool ensures thorough review of tested and untested code for a better end-user experience
- > Thorough insight into:
  - Function Coverage
  - Code Coverage
  - Class Coverage
  - Line Coverage
  - Call Pair Coverage
- > Closely examine portions of code
- > Selectively exclude coverage for specified modules
- > Generate reports in text or HTML format
- > Syntax color highlighting
- > No preprocessing or recompiling required

## Supported Tool Suites

You must have CodeWarrior Development Tools for PlayStation®2 to use this product.

## Freescale Developer Technology Game Organization Services and Technical Support

- > Freescale online support is available 24 hours a day, 7 days a week and provides the ability to:
  - download product updates
  - check the status of support requests
  - view your account information
  - access online knowledge base for frequently asked questions
- > Technical support is available via telephone and email during regular business hours

## Minimum System Requirements

- > Windows® 2000/XP
- > 1.5 GHz or faster Intel® Pentium® IV processor or AMD equivalent
- > 512 MB RAM
- > 400 MB plus space for user projects and source code
- > CD-ROM drive
- > Sony Computer Entertainment Development Kit DTL-T10000
- > Sony Computer Entertainment software development kit

## The BCI Advantage

The CodeWarrior Hierarchical Profiler uses Binary Code Instrumentation (BCI) technology, rather than source-code modification, to provide time-stamping and cycle-counting. Here's why:

- > BCI is much more accurate than sampling and less invasive
- > BCI does not modify source code
- > You don't need source code to use the Hierarchical Profiler, and third-party executables (libraries) can be instrumented as well
- > BCI works best with source and symbolic code

- > BCI shows you the times associated with functions and individual lines of code
- > BCI instruments code through time-stamping or cycle-counting
- > See the total time of each instruction and how it contributes to the application's overall runtime
- > BCI examines the time taken by individual lines of code
- > BCI provides a combination of time-stamping and cycle-counting
- > You can use the strengths of each to cancel the other's weaknesses for complete profiling

**Learn More:** For more information about Freescale products, please visit [www.freescale.com/games](http://www.freescale.com/games).

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