

Adobe ColdFusion 8 Debugging & Monitoring

Sven Ramuschkat

SRamuschkat@herrlich-ramuschkat.de



ColdFusion 8 Debugger

What do I need?

- Eclipse 3.1+ with CF8 extensions
- Setup (see Adobe Livedocs)
 - Enable RDS and Remote Debug
 - Modify jvm.config as needed
 - Add RDS configuration in ColdFusion
 - Settings in Eclipse
 - Add Debug profile in Eclipse

ColdFusion 8 Debugger

The screenshot displays the ColdFusion 8 Administrator interface. The top navigation bar includes the ColdFusion logo, the text "ADOBE® COLD FUSION® ADMINISTRATOR", and utility icons for help, information, and a question mark, along with a "LOGOUT" link. A left-hand sidebar contains a tree view of settings categories: "SERVER SETTINGS" (expanded), "DATA & SERVICES", and "DEBUGGING & LOGGING". Under "DEBUGGING & LOGGING", "Debugger Settings" is selected. The main content area features a light blue header with the text "Click the button on the right to update Debugger Settings..." and a "Submit Changes" button. Below this is the section "Debugging & Logging > Debugger Settings". A descriptive paragraph states: "Enable the Allow Line Debugging option to use the ColdFusion Debugger that runs in Eclipse. Specify the port and the maximum number of simultaneous debugging sessions." The "Line Debugger Settings" section includes a checked checkbox for "Allow Line Debugging", a "Debugger Port:" field with the value "5005", and a "Maximum Simultaneous Debugging Sessions:" field with the value "5". The "Debugging Server" section contains a paragraph explaining that the debugging server runs as a separate process and can be managed from this page. Below this text are two buttons: "Stop Debugger Server" and "Restart Debugger Server". At the bottom of the main content area, another light blue bar repeats the text "Click the button on the right to update Debugger Settings..." and the "Submit Changes" button.

CF ADOBE® COLD FUSION® ADMINISTRATOR

Expand All / Collapse All

SERVER SETTINGS

- Settings
- Request Tuning
- Caching
- Client Variables
- Memory Variables
- Mappings
- Mail
- Charting
- Font Management
- Java and JVM
- Settings Summary

DATA & SERVICES

DEBUGGING & LOGGING

- Debug Output Settings
- Debugging IP Addresses
- Debugger Settings**
- Logging Settings
- Log Files
- Scheduled Tasks
- System Probes
- Code Analyzer
- License Scanner

Click the button on the right to update Debugger Settings... [Submit Changes](#)

Debugging & Logging > Debugger Settings

Enable the Allow Line Debugging option to use the ColdFusion Debugger that runs in Eclipse. Specify the port and the maximum number of simultaneous debugging sessions.

Line Debugger Settings

Allow Line Debugging

Debugger Port:

Maximum Simultaneous Debugging Sessions:

Debugging Server

The debugging server runs as a process separate from the ColdFusion Server. You can start, stop or restart the debugging server from this page, however, this is usually not necessary because the debug process is managed automatically when a debug session is started.

[Stop Debugger Server](#) [Restart Debugger Server](#)

Click the button on the right to update Debugger Settings... [Submit Changes](#)

ColdFusion 8 Debugger

What can it do?

- Demo 1:
 - Set breakpoints
 - View and modify variable values
 - Step through your code line by line
- Demo 2: Step into
- Demo 3: Watch expressions

Load Testing

- In order to completely understand the scalability limitations of your application, you must test it using multiple clients.
- Load testing tools enable you to generate multiple simultaneous requests.
 - Test using specific representative paths through the application that are representative of typical use cases.
 - As the testing progresses, gradually increase the number of "virtual users," measuring response times and/or throughput.
 - You continue testing until the server breaks or an intolerable response time is reached.
 - Packages and services are available from third party vendors to help you understand the limits of your application and perform capacity planning such as:
 - JMeter <http://jakarta.apache.org/jmeter/>

Using the ColdFusion Server Monitor

- ColdFusion 8 includes an Adobe Flex-based GUI for monitoring server performance.
 - Quickly identify common problems such as memory leaks, poorly performing pages and slow queries.
 - Configure alerts to take corrective action and/or send out notifications when specific problem thresholds are reached.
 - Take a "snapshot" of performance that outputs current memory status, load, and detailed information about currently executing threads.

Starting the monitoring process

- Launch the server monitor
 1. Launch the ColdFusion Administrator
 2. Select Server Monitoring > Server Monitor > Launch Server Monitor
[http://\[server\]/CFIDE/administrator/monitor/launch-monitor.cfm](http://[server]/CFIDE/administrator/monitor/launch-monitor.cfm)

Starting the monitoring process

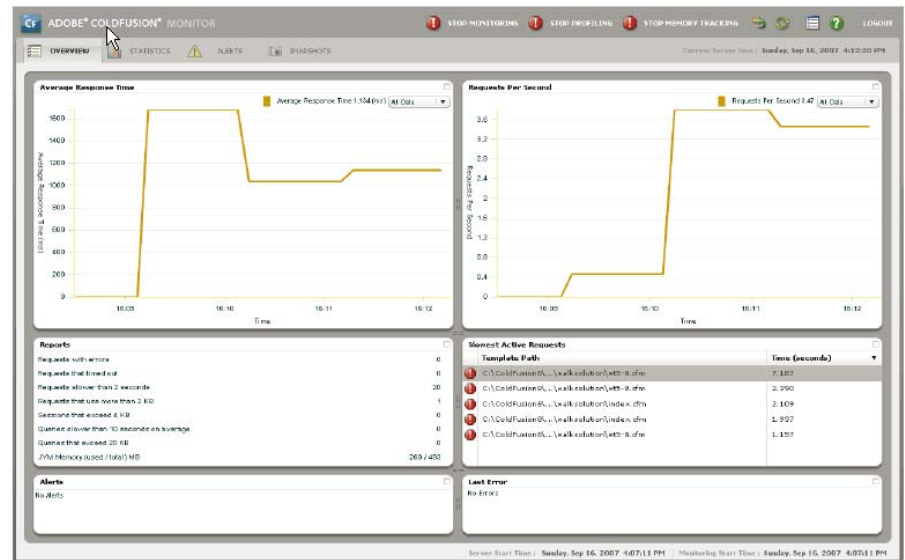
- In the executive dashboard, you will see the control bar:



- In order to start capturing statistics, you will need to click on one or more of the following buttons:
 - **Start Monitoring:** Clicking this button starts the process of gathering information about requests and is used to generate critical reports such as slowest requests, active sessions, and cumulative server usage.
 - **Start Profiling:** Clicking this button gathers information about how long it takes the server to process queries and requests – information that is critical in locating bottlenecks within your application. When profiling is activated you can drill into poorly performing requests or those consuming a lot of memory in order to determine why your request is misbehaving.
 - **Start Memory Tracking:** This feature causes ColdFusion to track information about overall memory usage, including how much is being consumed by queries, sessions, and shared memory scopes. Note that this process can be resource intensive and negatively impact performance.

The Executive Dashboard

- The Executive Dashboard, as depicted below, displays the following information about your server:
 - Average Response Time
 - Requests per second
 - Slowest Active Requests
 - Alerts
 - Last Error
 - Request / Query / JVM Reports



Questions?