

FusionReactor Webinar: Setting up and Using the FusionReactor Enterprise Dashboard

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Introductions



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(Focused on server troubleshooting)

Agenda

- Foreword
- Quick demo of the FR Enterprise Dashboard (ED)
- FR editions supporting the ED
- Choices for implementing the ED (*where, how, pros/cons*)
- Detecting/handling unresponsive instances monitored by the ED
- Other notable aspects of the ED
- Questions & answers

Foreword

- Audience: presumed to already be using FR
 - May or may not yet be using FR 6. Dashboard same in FR 5
 - May not be using ED, or not fully leveraging it
 - I'm willing to bet even those who regularly use the ED will learn new things!
- As always, features apply to any Java/CFML server that FR can monitor
- I use “machine/server” interchangeably here, and mean either real or virtual
- Some topics may have been presented in more detail in other webinars
 - Troubleshooting..., Post-mortem Troubleshooting, Hidden Gems in FR, etc
- Preso is being recorded, so you'll be able to revisit details

Quick Demo

Observing many FR instances from a single screen

- Watching overall health of one or more FR instances, on one/or more machines
- Watching a subset of key metrics for an instance
- Drilling down to detailed FR UI for an instance
- Watching groups of instance/machines
- Disabling ED monitoring of a given instance

Basic elements of ED status indicators

- MCRD “pipes”: memory, cpu, request activity, db activity
- “warning lights”/status messages
 - Conn, slow, long, mem, qty, time, db, act
- Colors of boxes: blue (ok), yellow (warning), red (problem)
- Notifications about server (if any, number appears on box)
- More on such ED basics (icons, warning lights, metrics, etc.) starting at:
 - docs.fusion-reactor.com/display/FR62/Enterprise+Dashboard#EnterpriseDashboard-ServerIcons

FR editions supporting the ED

- The FR ED is offered in all editions but FR Standard
 - So it's in FR Enterprise and Ultimate, as well as Trial (and Developer) editions
- The FR ED can monitor all but FR Standard instances (so the 4 above)
- There are still more features these 4 add, over Standard (beyond scope of this talk)
- More on FusionReactor Developer edition:
 - fusion-reactor.com/news/fusionreactor-developer-edition-ultimate-features-and-insight/
 - Intended solely for development use

Choices for Implementing the ED

Where it can be setup

- Again, the ED feature appears in all FR editions that support it
 - See “globe” logo at top of FR instance
- ED is also available within FRAM instance
 - What is FRAM?
- Why one might implement the FR ED in a FRAM instance (vs a “regular” FR instance)
- How the ED can watch any FR instance it can reach (and authenticate to)
 - So ED can view instances on same machine or another/others
- Why one might implement ED on FRAM, on a machine without any FR instances

Summary of ED implementation choices

1. In FR instance (the UI for FR installed into a given Java/CF/CFML instance)
 - Can watch itself and any other FR instance
 2. In FRAM instance, on a machine with other FR instances
 - Can watch those or any other FR instance
 3. In FRAM instance, on machine having no other FR instances
 - Can watch any other FR instance
- (Again, all the above applies to FR editions other than FR Standard)

Adding instances to ED, automatically and manually

- Automatic: option offered during add of instance from FR Instance Manager
- Manual: using “Manage Servers” option in ED (globe) menu
 - You must know FR instance’s URL and port, and FR admin password
 - And that URL/port must be accessible from the machine running the ED
 - More: docs.fusion-reactor.com/display/FR62/Manage+Servers
- Via JVM args
 - Available FR ED-specific JVM args, to register an instance with an ED
 - Useful when scripting an FR instance implementation, such as for AWS
 - More: docs.fusion-reactor.com/display/FR62/Using+FusionReactor+in+AWS

Detecting/Handling Unresponsive Instances Monitored by the ED

Overview of “unresponsive instance” detection

- FR ED constantly reaches out to monitored instances
- It will detect when a monitored FR instance is not responding
 - Will indicate visually in ED
 - Can optionally be configured to send email, script a reaction (more in a moment)
- Note that this is not about the FR ED calling a URL in your app
 - But about the FR ED calling the FR instance it's monitoring
 - May get response to that, even if your app may not itself be responsive
 - Of course, some app problems do lead to overall instance unavailability
- Let's talk first about configuring notification and detection

Configuring notification, detection

- ED can be configured to send email notification of detection
 - Sends one when instance is detected as being unresponsive (“down”) and then back “up”
 - Note: you will only get “up” message if ED is in the instance which itself went “down”
 - Email configuration in FR menu (top left), then “settings”
 - More: docs.fusion-reactor.com/display/FR62/Settings
- You can even configure “when” an instance is deemed “unresponsive”
 - After how many seconds, of how many failed “heartbeat” checks
 - See “Enterprise Settings” in ED menu
 - More: docs.fusion-reactor.com/display/FR62/Enterprise+Settings
- Now, about scripting a response...

Scripting a reaction to unresponsive instance

- If it makes sense, can script how FR ED should react to unresponsive instance
 - May want to trigger restart of the instance, or something more refined
- Can run any cmd/bat/exe (Windows) or cmd/shell script/binary (Linux)
 - Script to be run is specified when FR instance is added to ED
- Scripts can even cause action on remote servers (in Windows or Linux)
 - In Windows, requires separate free tool (psexec)
 - technet.microsoft.com/en-us/sysinternals/bb897553
- More:
 - docs.fusion-reactor.com/display/FR62/Using+Monitored+Server+Scripts
 - **Manual:** docs.fusion-reactor.com/display/FR62/Using+FusionReactor+Enterprise+Scripting

Other Notable Aspects of the ED

Other notable aspects of ED

- Levels at which ED considers warning/problem state are also configurable
 - See “Enterprise Settings”
 - Useful if you are getting frequent indications of red/trouble, which really are not (for you)
 - More: docs.fusion-reactor.com/display/FR62/Enterprise+Settings
- Notification indicator (if any number appears on box)
 - Again, about other known issues on the instance (as can be viewed in FR also)
 - Simply made viewable within FR ED
 - More: docs.fusion-reactor.com/display/FR62/Notifications
- Trick: if you ever can't recall password for a given FR instance, if it's in an ED and you can log into that, you can open the FR instance from the ED
 - Remember, the password for the instance had to be provided when added to ED

Grouping instances/servers

- FR instances can be grouped in ED any way you choose
 - Groups can represent those in a location, or running an app, or running a given version, etc.
 - An instance can be put in one or more groups
- Color coding reflects overall health of all the instances in that group
- Just another powerful way the FR ED lets you watch many instances at once
- Especially helpful in Network Operations Center or other IT dashboard scenarios
- More: docs.fusion-reactor.com/display/FR62/Manage+Groups

FR mobile apps (IOS and Android)

- These connect to an FR ED
 - Assuming the ED URL can be reached from device, and admin password is provided
- They present the ED, and options to drill down
- They also present a subset of details from FR instance drilled into
 - web metrics, requests, etc.
- More:
 - fusion-reactor.com/mobile/
 - docs.fusion-reactor.com/display/FR62/Mobile+App
- There is also an available AIR ED
 - As a desktop app, provides option to popup on alerts
 - More: docs.fusion-reactor.com/display/FR62/Air+Dashboard

Key FR ED resources

- Those already mentioned:
 - *docs.fusion-reactor.com/display/FR62/Enterprise+Dashboard*
 - *docs.fusion-reactor.com/display/FR62/Enterprise+Settings*
 - *docs.fusion-reactor.com/display/FR62/Manage+Servers*
 - *docs.fusion-reactor.com/display/FR62/Manage+Groups*
 - *docs.fusion-reactor.com/display/FR62/Using+Monitored+Server+Scripts*
 - *docs.fusion-reactor.com/display/FR62/Using+FusionReactor+Enterprise+Scripting*
 - *fusion-reactor.com/mobile/*
 - *docs.fusion-reactor.com/display/FR62/Mobile+App*
 - *docs.fusion-reactor.com/display/FR62/Air+Dashboard*
- Consider also:
 - *docs.fusion-reactor.com/display/FR62/Configuration+for+Enterprise+and+High-Availability+Environments*

Conclusion

- The ED lets those with many FR instances watch them from a single screen
- Can assess overall health, drill down to key metrics, or all the way to full FR UI
- Can setup ED in regular or FRAM instances, to watch FR on any machine
- Can group related instances, to watch them as a whole
- ED can be configured to notify you of unresponsive servers, or script a reaction
- Can view ED in web, mobile apps, and/or AIR desktop app
- If you have multiple FR instances, the ED helps you better monitor/manage them!

Other upcoming webinars

- Others being planned
- Registration: www.fusion-reactor.com/webinars
 - Recordings of past webinars also offered there

Other FR resources

- **FR web site: *fusion-reactor.com***
 - Downloads
 - Docs, videos, technotes, forums, and much more
- **Email: sales@fusion-reactor.com, support@fusion-reactor.com**
- **Phone: (978) 496-9990 (sales)**
- **Consulting assistance: cfconsultant.com**
- We welcome your feedback on these or the other webinars, or any you would like to see

A photograph of several people in a dimly lit office or control room. They are seated at desks with large computer monitors. The primary subject is a man in the foreground wearing glasses and a dark shirt, looking intently at a monitor. His hand is near his chin in a thoughtful pose. Other people are visible in the background, also focused on their work. The scene is illuminated by the glow of the monitors and desk lamps, creating a professional and focused atmosphere.

Questions & Answers