Featherweight Getting Started

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| Revision | Author | Date | Comments |
| A | E. Metzler |  | Original |
|  |  |  |  |

# Specs

* LV 2013+

# Add to a project

1. Add a property to your project source directory
2. Add an extern to the branch of choice to a local directory called Featherweight. Only the bold part of the URL is required if adding to a Viewpoint project in SVN.
   1. [https://sc.viewpointusa.com**/svn/featherweight/trunk**](https://sc.viewpointusa.com/svn/featherweight/trunk) - releases only, most stable
   2. https://sc.viewpointusa.com**/svn/featherweight/tags/x.x.x** – a specific release, most stable
   3. [https://sc.viewpointusa.com**/svn/featherweight/branches/develop**](https://sc.viewpointusa.com/svn/featherweight/branches/develop) - newest features, very stable
   4. https://sc.viewpointusa.com**/svn/featherweight/branches/feature-xxxx** – feature in development, not stable
3. Commit
4. Update

# Where to start

[\\ROCHNAS02\Data\Engineering\In House Training\Presentations\_Brown Bag\Featherweight\Featherweight BBL.pptx](file:///\\ROCHNAS02\Data\Engineering\In%20House%20Training\Presentations_Brown%20Bag\Featherweight\Featherweight%20BBL.pptx)

Check out examples for very simple examples of implementing actors, connectors

## Successful projects for reference

Exelis WBIF

GWave

MITRE

MEPPI

VCTDAQ

# Actors

An interface to a specific resource such as:

* An instrument
* A database
* A piece of equipment
* A file

Kind of like a scalable AE

Takes requests, cannot be directly commanded to do something

# Connector

The interface between an actor and a caller

# Job

An internal action to an actor

Can be queued up within an actor

Can easily be replaced with VIs, but reduces file volume for simple actors

# Job Sequence

A predefined sequence of jobs

# Baked jobs

## FTW: Initialize

Called after critical startup jobs

Responds to launcher that the actor is fully initialized

## FTW: Event Handler

Waits for a request or user input

Default job when job queue is empty

## FTW: Error Handler

Executes when a previous job has an outgoing error

Logs the error, performs any other custom error handling, then clears the error and continues with the next job in the queue

## FTW: Shutdown

The last job that is executed when an actor is shutting down

Will stop the while loop, so no subsequent jobs will execute

# Best practices

Requests for asking an actor to do something

Publish data when an actor needs to tell the world about itself (status/state usually) as opposed to queries

Use actor init for deserializing configuration string only

Perform actor launch critical jobs before FTW: Initialize and use **FTW-Actor-OnError-BeginShutdownSequence.vi** to shut down if critical steps error