Base Expert

VideoFile

VideoUtil

global_config

AggQueue

«interface»
FramesDataset

FrameImagesFolder

RemoteVideo

RemoteAPIUtility

+ field: type

BaseAnnotator

+ field: type

ExpertPipelineStep

ExpertManager

+ pipeline

Use

Extends

Extends

Extends

ExpertPipeline

Extends

Extends

Depth Expert

ArangoStep

DepthStep

DepthManager

DepthAPIUtility
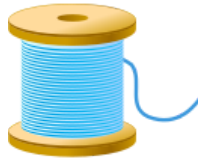
DepthAnnotator

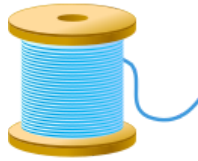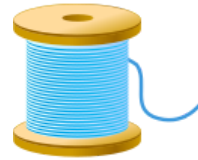CLI - Main Thread

Schedular - Using
ArangoStep
Wait for new movies
And post them to
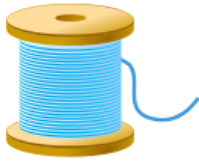AggQueue

DepthStep
Waits on queue for
new
movies to analyze

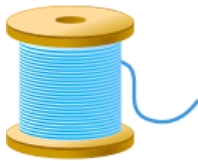AggQueue

Nebula 3
Expert Framework

ExpertApp is
the framework that
runs the expert, wait
on the pipeline,
forwards the movies
to the expert and
provide api for
operations and
monitoring

Logger

ExpertApp

+ field: type

+ method(type): type

Pipeline

+ field: type

+ method(type): type

Pipeline hold everything
needed for workflow
pipeline: pub/sub, waiting
movies etc'

BaseExpert holds
resources needed to
operate the specific
experts, upon
receiving
a movie

BaseExpert

+ logger

+ predict(id, params:

MovieDB

TokensDB

MovieS3

**Database
Connector**

Extends

SpecificExpert

+ field: type

+ method(type): type

Nebula 3
Expert Threads

Web CLI (FastAPI)
main Thread

ExpertApp

Queue

Pipleline
Subscription
Thread