

Components

REST and Components

BigSense is a RESTful web service. To this end, the individual components that get called can often be seen in the URL itself. Take for example the following request:

http://example.org/Aggregate/Sum/DateRange/20120501/20120502/60.txt?Timezone=America/New_York&Units=Standard

From this URL we can see the **AggregateAction** class is called. All the other path elements of the URL such as **Sum**, **DateRange**, **20120501**, **20120502** and **60** are placed in an **ActionRequest** object and sent to that action. Everything after the first period indicates the **FormatTrait** to be used. In this case it's the tab delimited format (txt). Then, two additional **ConverterTraits** are applied: **TimezoneConverter** and **UnitsConverter**. There are other components that are used behind the scene such as **ValidatorTraits** and the **DatabaseHandler**.

Actions

Actions use the naming format `<Action Name>Action` for their class names. The name doesn't actually matter as they are glued into the framework using Spring as we'll see later. The actions do not perform any validation on their inputs. Those are taken care of by **ValidationTraits**. They simply assume the arguments are correctly formatted and of the right type and do what the call requires. This typically involves either reading or writing data to the database. The inputs to an actions `runAction()` method is an **ActionRequest** object and the action returns an **ActionResponse**.

Validators

Validators are called before the appropriate action. If two actions have the same input requirements, they can share the same validator. If the validator returns something other than the Scala **None** type, the error message is processed and sent to the end user without the action being run. If the validation passes, the action is then called.

Formats

TODO placeholder

Model

TODO placeholder

Security

TODO placeholder