WicketCharts Wicket Component

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This component (`isis-wicket-wickedcharts`) integrates Wicked Charts. **Wicked Charts** is in turn an integration between Apache Wicket and the Highcharts JS charting library).

Please note that while this project and **Wicked Charts** are licensed under Apache 2.0 License, **Highcharts** itself is only free for non-commercial use. See the Highcharts website for further details.

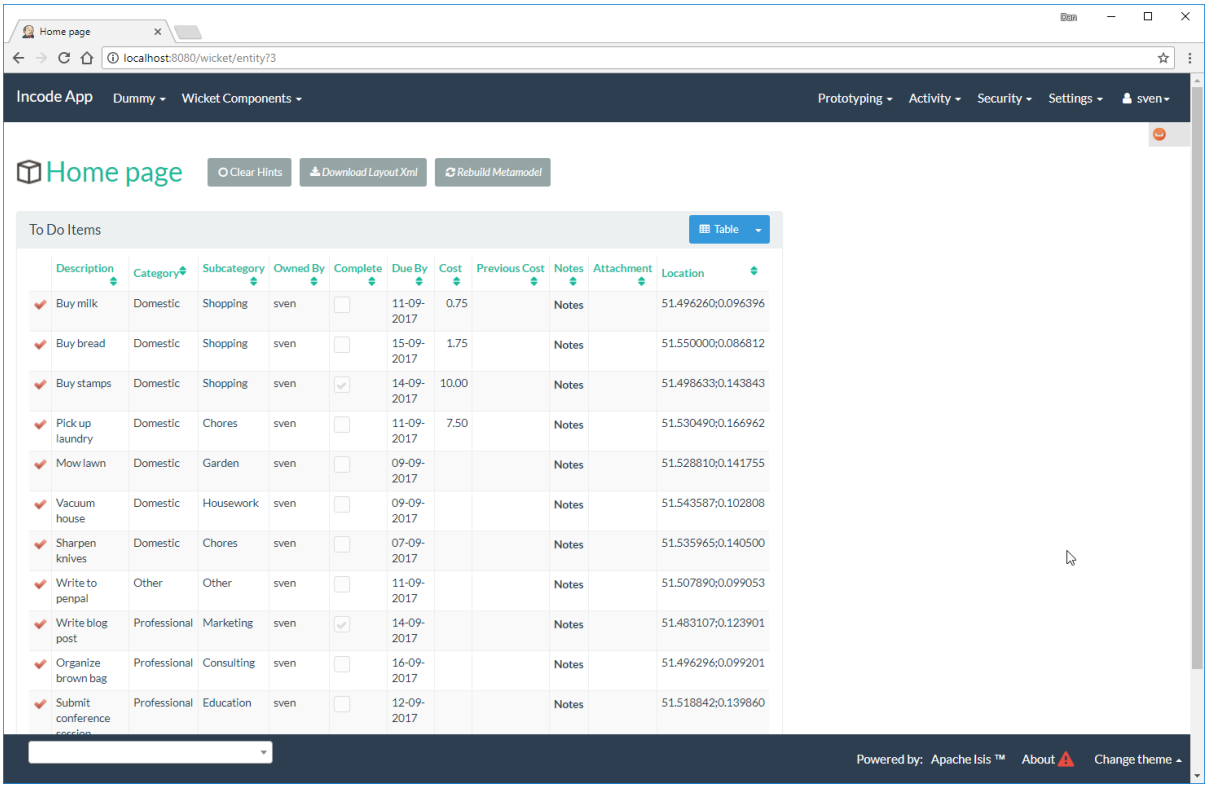
There are in fact two separate components:

- `summarycharts`: render a standalone collection with `BigDecimal` properties as a chart. (This component can be thought of as an enhancement of the base `summary` view provided by Isis Wicket viewer).
- `scalarchart`: renders a standalone scalar value (from an action invocation) as a chart

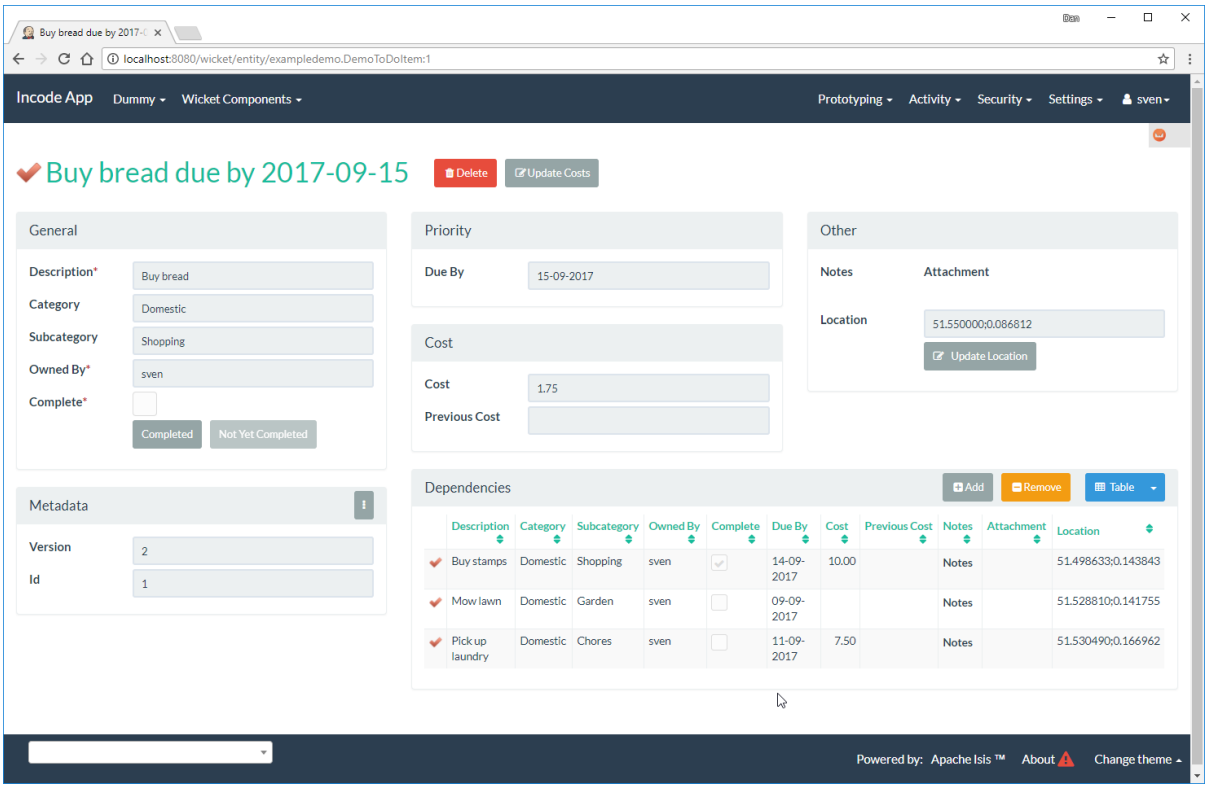
Screenshots

The module's functionality can be explored by running the quickstart with example usage using the `org.incode.domainapp.example.app.modules.ExampleDomWktSummerNoteAppManifest`.

A home page is displayed when the app is run:

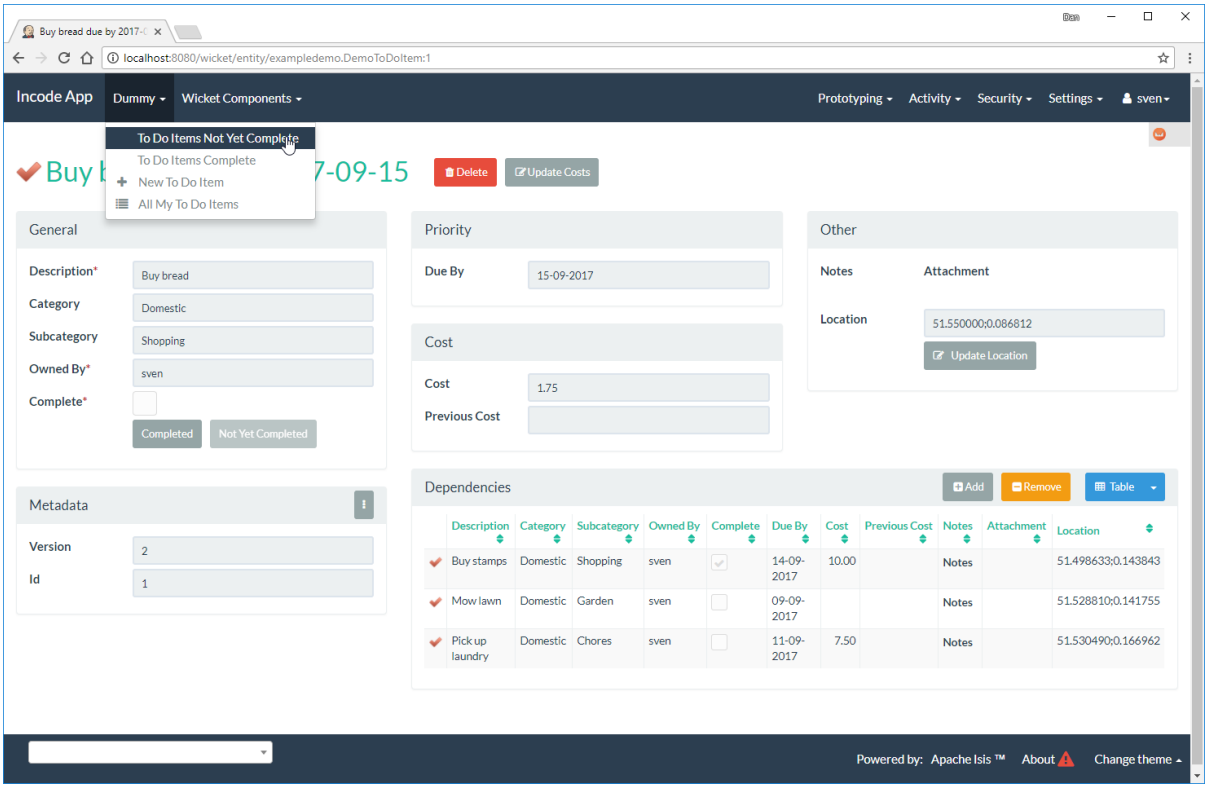


Note that the example entity (todo item) has two numeric (`BigDecimal`) properties:

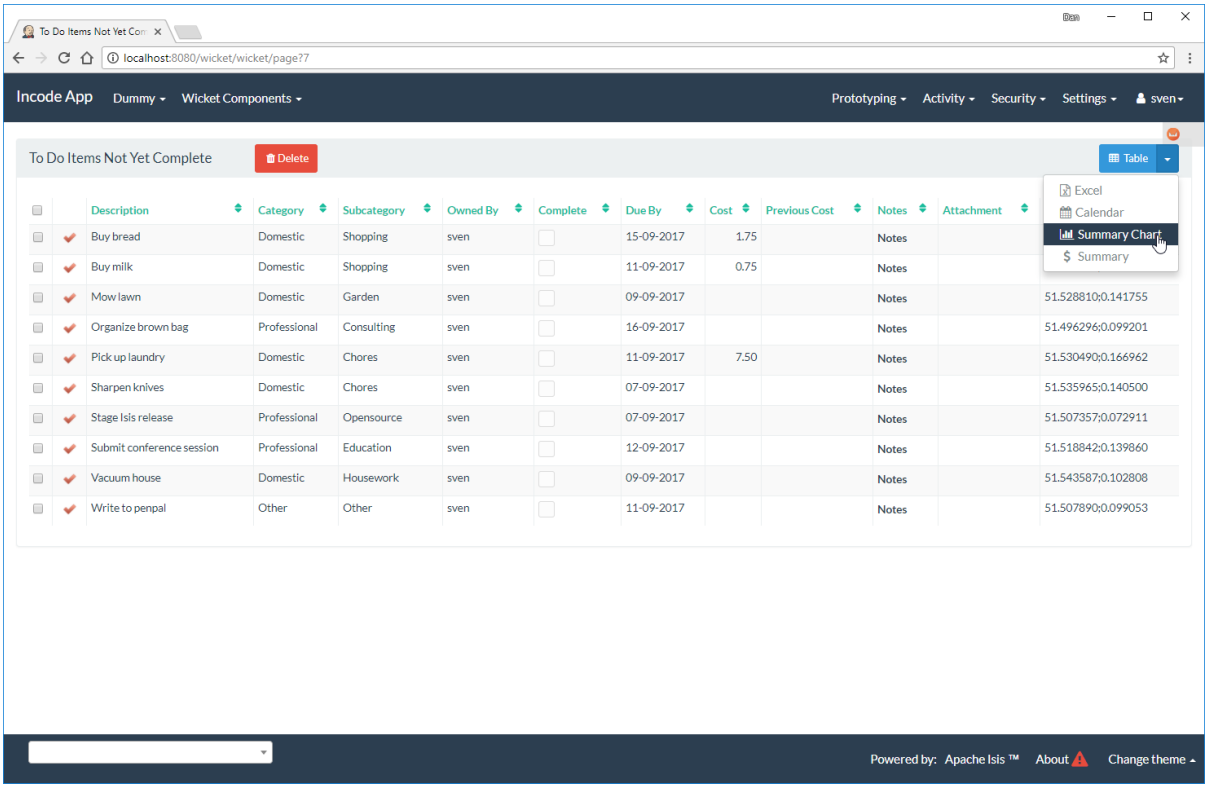


Summary Charts

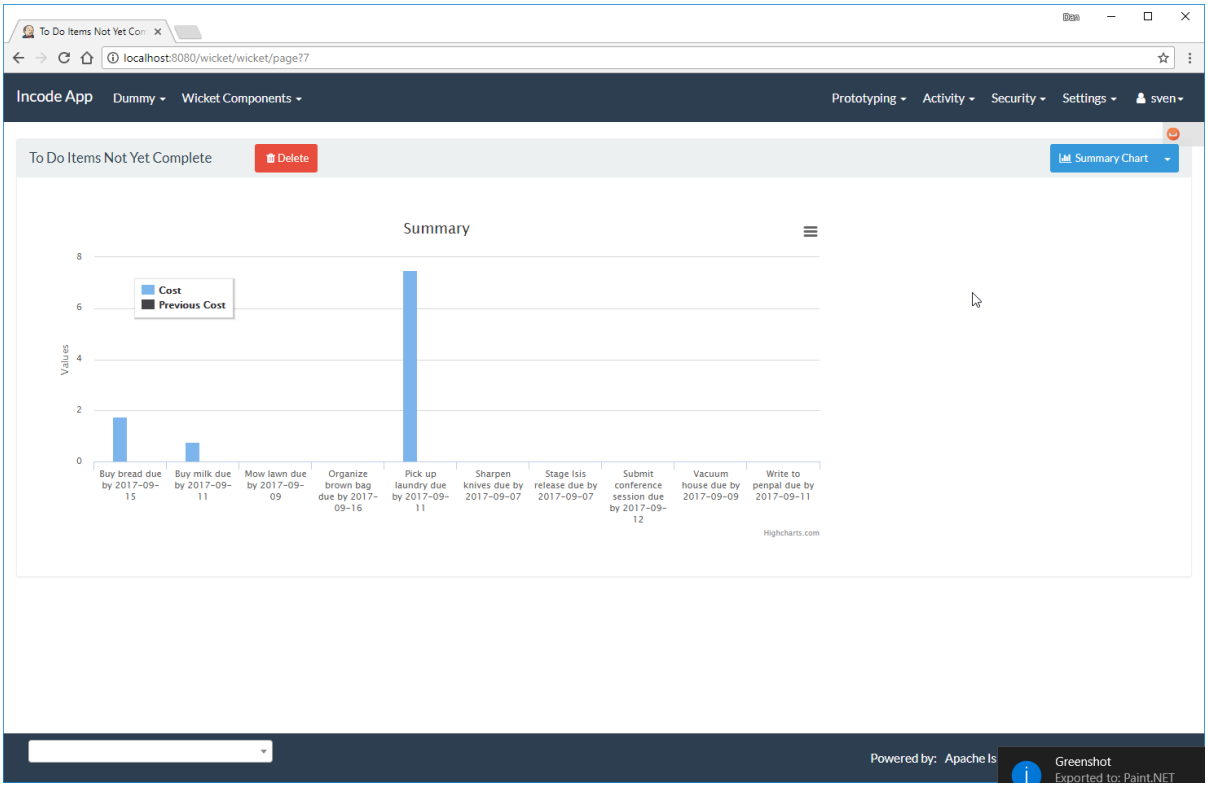
Invoking an action that returns a collection of entities:



... shows an additional button to view those entities in a summary chart:

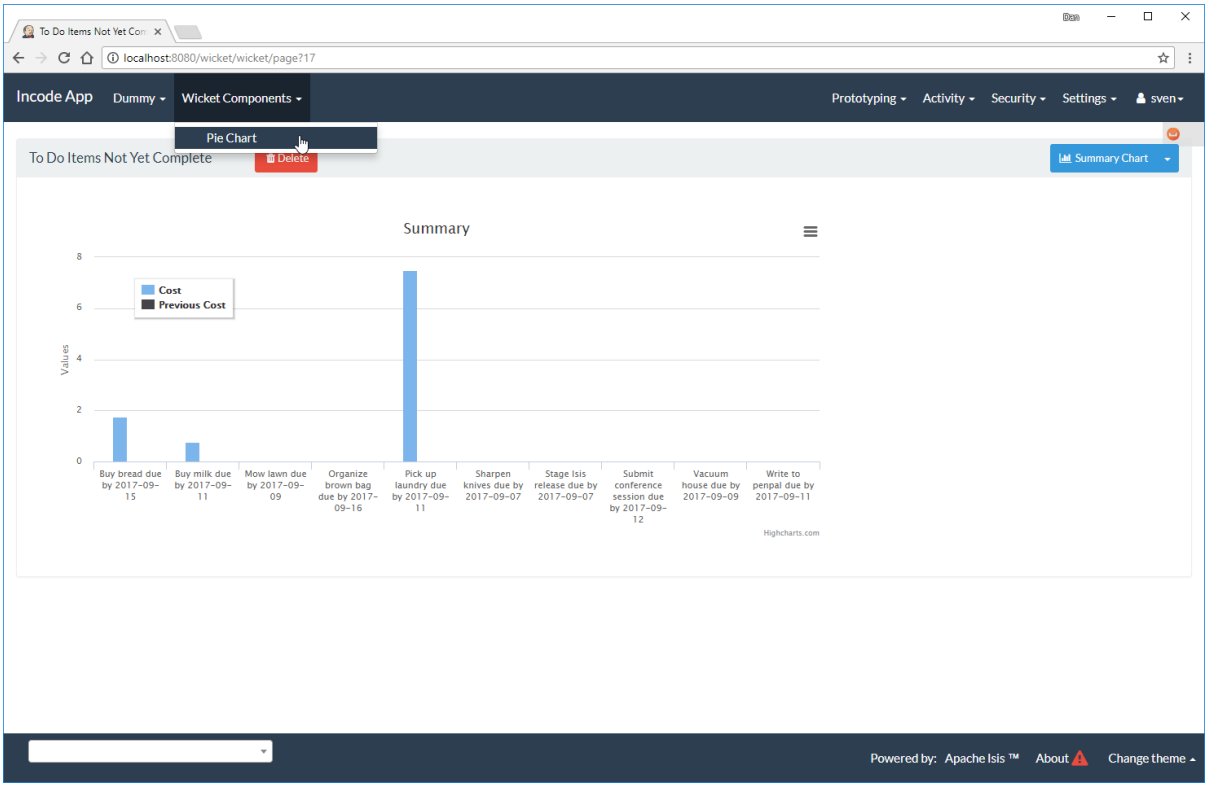


Clicking on the button renders a chart where the values of all numeric (`BigDecimal`) properties are plotted:

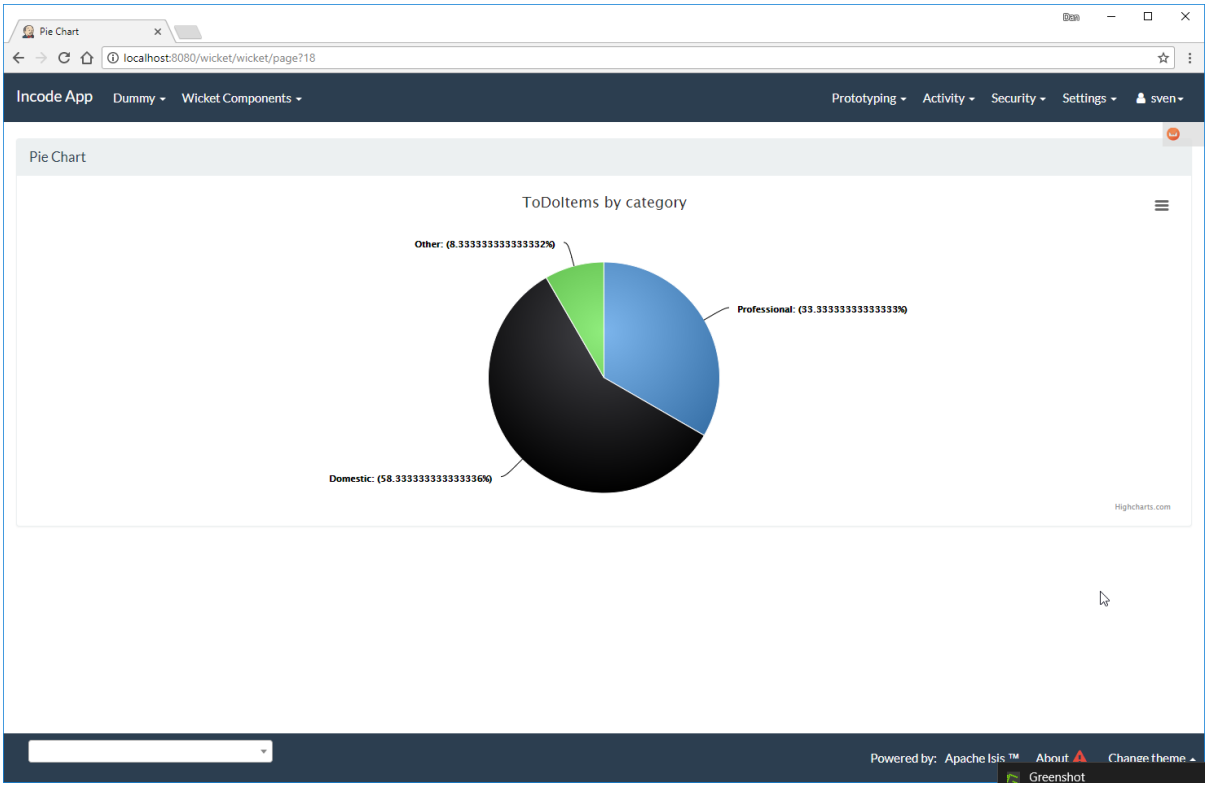


Scalar Charts

Arbitrary charts can be returned from any action. For example this action:



... renders a pie chart splitting out the example Todo entities by their category:


Pie Chart
localhost:8080/wicket/wicket/page?18
Incode App
Dummy
Wicket Components
Prototyping
Activity
Security
Settings
sven
Pie Chart
ToDoItems by category
Other: (8.3333333333332%)
Professional: (33.333333333333%)
Domestic: (58.333333333333336%)
Highcharts.com
Powered by: Apache Isis™
About
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API & Usage

Summary Charts

There is no special usage; a standalone collection of any entity with one or more properties of type `BigDecimal` will be rendered using the `summarycharts` extension.

Scalar Chart

Any action returning the `WickedChart` value type should be rendered as a chart. The `WickedChart` value type is simply a wrapper around the wicked chart's `Options` class:

```
import com.googlecode.wickedcharts.highcharts.options.Options;

public class WickedChart implements Serializable {

    private Options options;

    public WickedChart(Options options) { ... }
    ...
}
```

Any chart supported by **Wicked Charts** (see their showcase app) should work.

How to configure/use

Classpath

Add the component to your project's `dom` module's `pom.xml`:

```
<dependency>
    <groupId>org.isisaddons.wicket.wickedcharts</groupId>
    <artifactId>isis-wicket-wickedcharts-cpt</artifactId>
</dependency>
```

Check for later releases by searching Maven Central Repo.

For instructions on how to use the latest `-SNAPSHOT`, see the contributors guide.

Known issues / Limitations

Although the `WickedChart` class (in the `scalarchart's API) has value semantics, it will (currently) not render as a chart if used as an entity property. Such a property should be persistable, however. Therefore a workaround is to hide the property and instead provide an action to show the chart.

For example:

```
public class MyEntity {

    private WickedChart chart;
    @Property(hidden=EVERYWHERE)
    public WickedChart getChart() { ... }
    public void setChart(WickedChart chart) { ... }

    public WickedChart showChart() {
        return getChart();
    }
    ...
}
```

Dependencies

Maven can report modules dependencies using:

```
mvn dependency:list -o -pl modules/wkt/wickedcharts/impl -D excludeTransitive=true
```

which, excluding Apache Isis itself, returns these compile/runtime dependencies:

```
commons-codec:commons-codec:jar:1.7
com.googlecode.wicked-charts:highcharts-wrapper:jar:2.0.1
com.googlecode.wicked-charts:wicked-charts-wicket7:jar:2.0.1
```

For further details on 3rd-party dependencies, see:

- Apache Commons (Codec)
- Wicked Charts

It also includes a Javascript dependency on Highcharts.

Note that the Highchart License is commercial and must be purchased (unless in use for a personal/open source project).