

# WickedCharts 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.

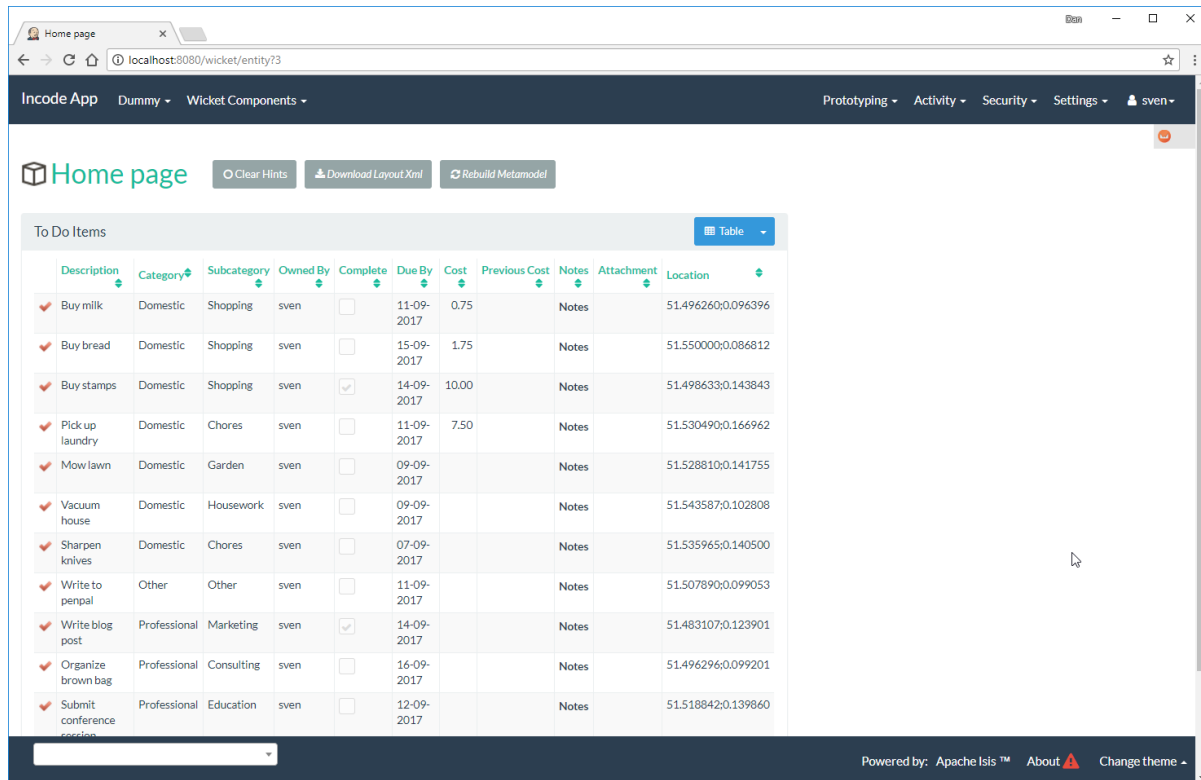
There are in fact two separate components:

- `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

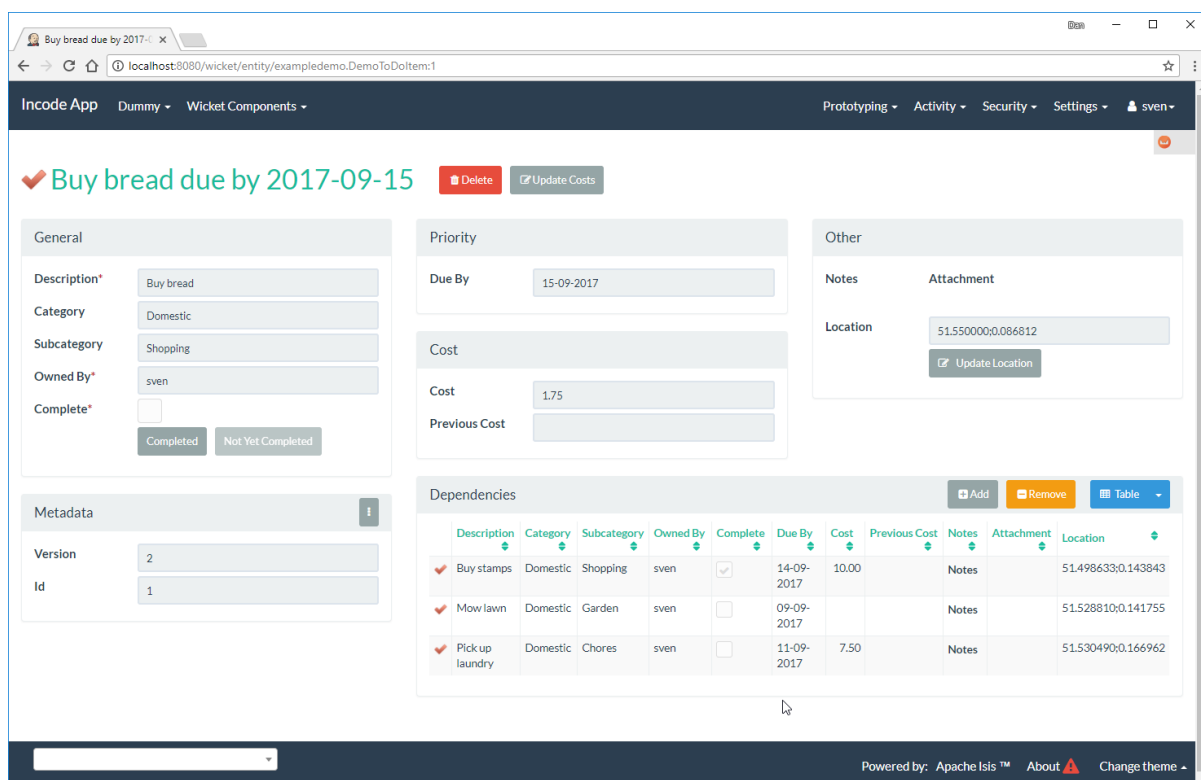
# Screenshots

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:

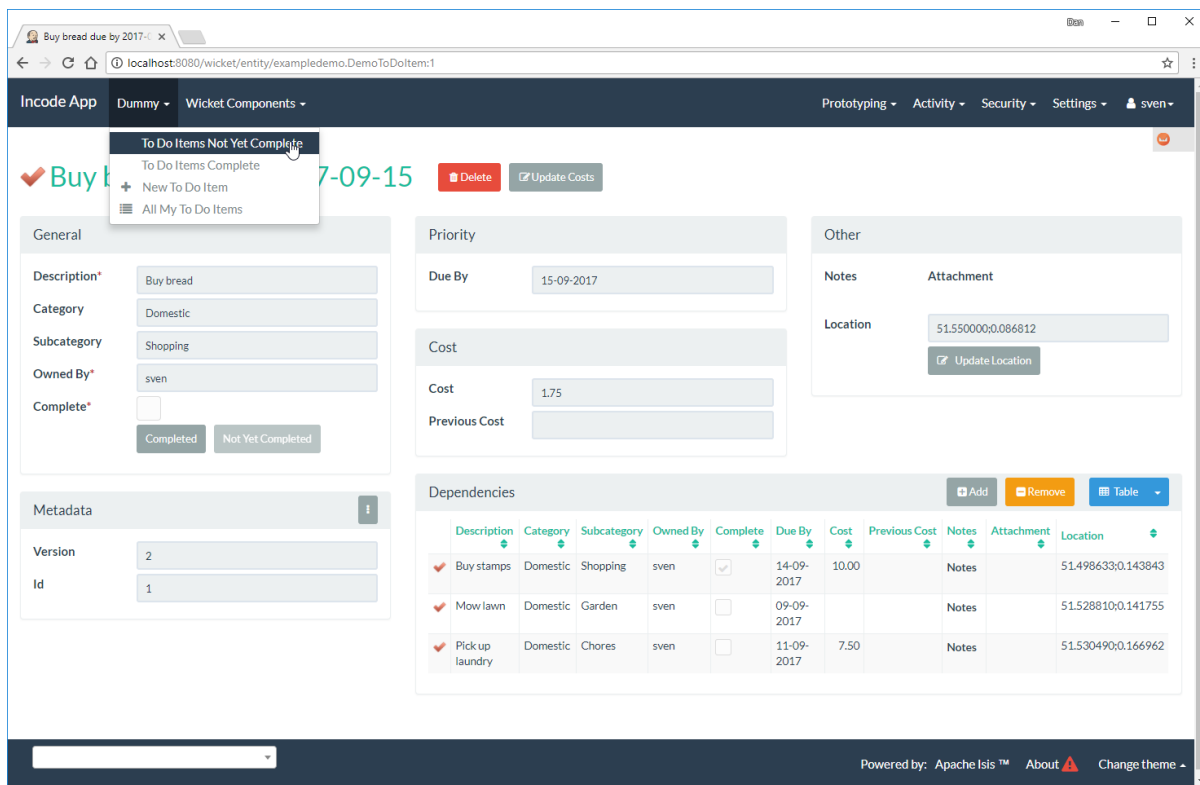


Note that the example entity (todo item) has two numeric (**BigDecimal**) properties:

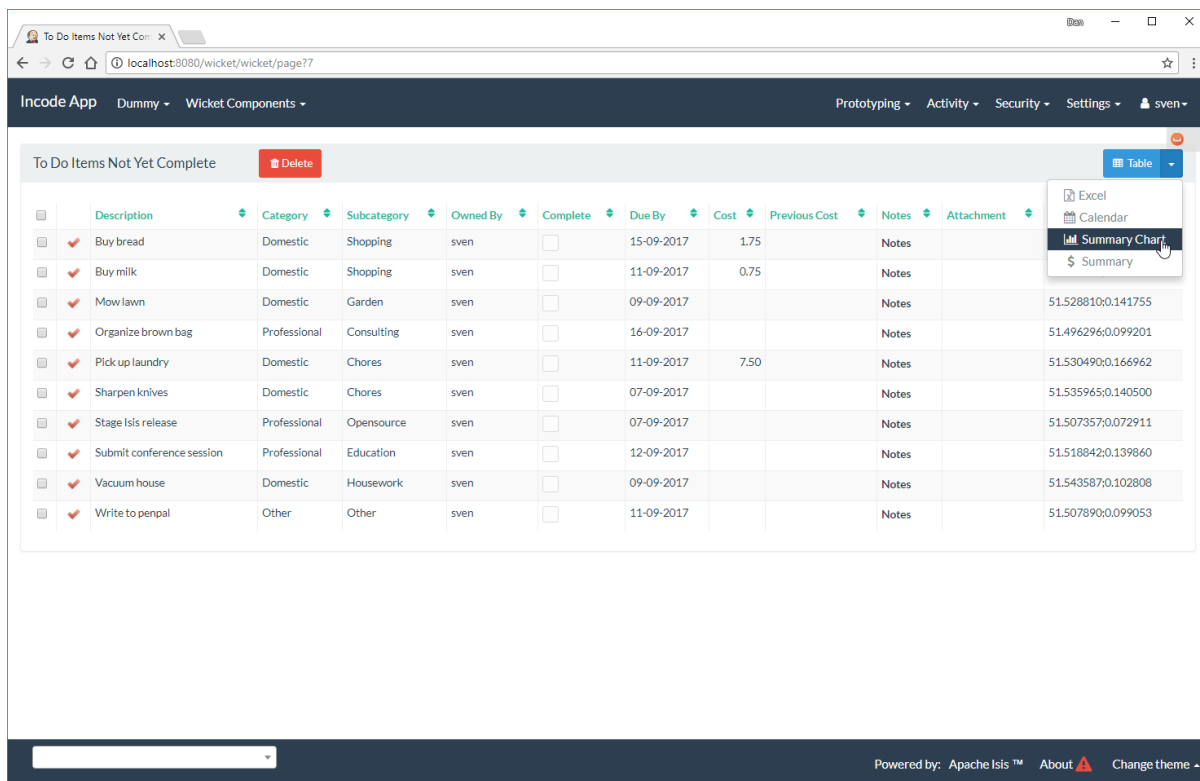


# Summary Charts

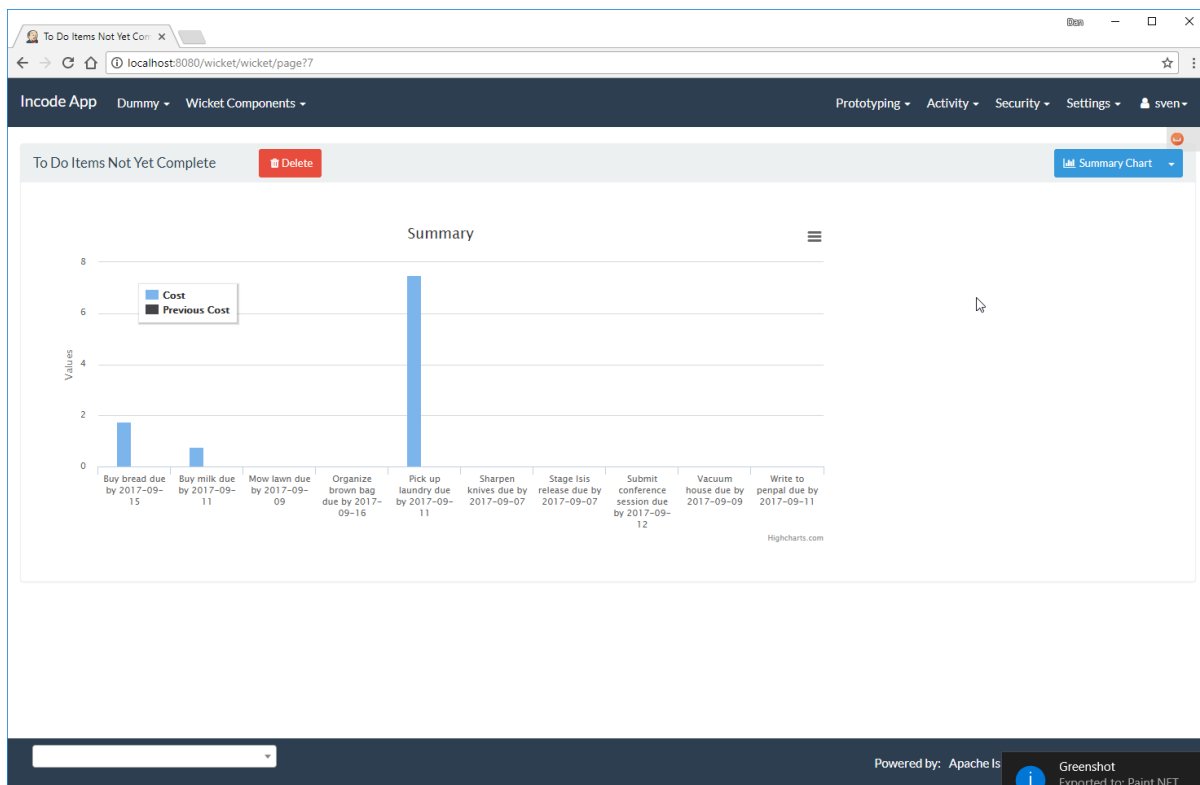
Invoking an action that returns a collection of entities:



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

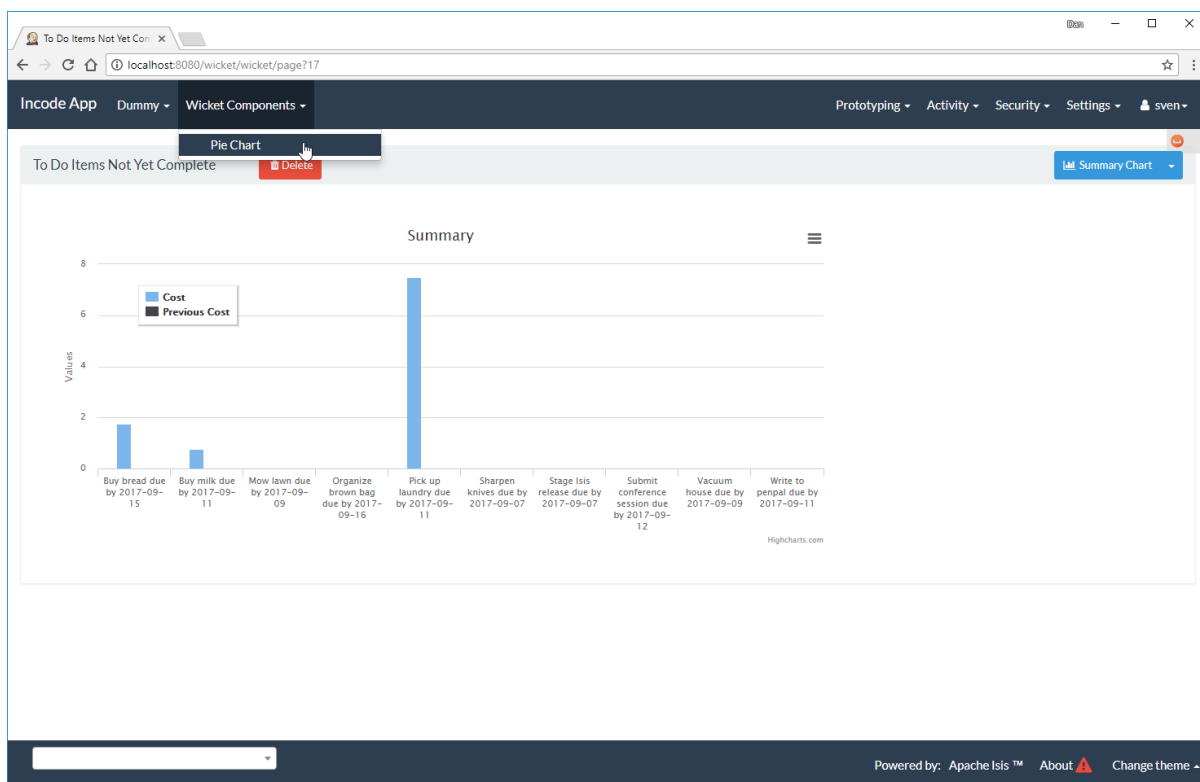


Clicking on the button renders a chart where the values of all numeric (**BigDecimal**) properties are plotted:

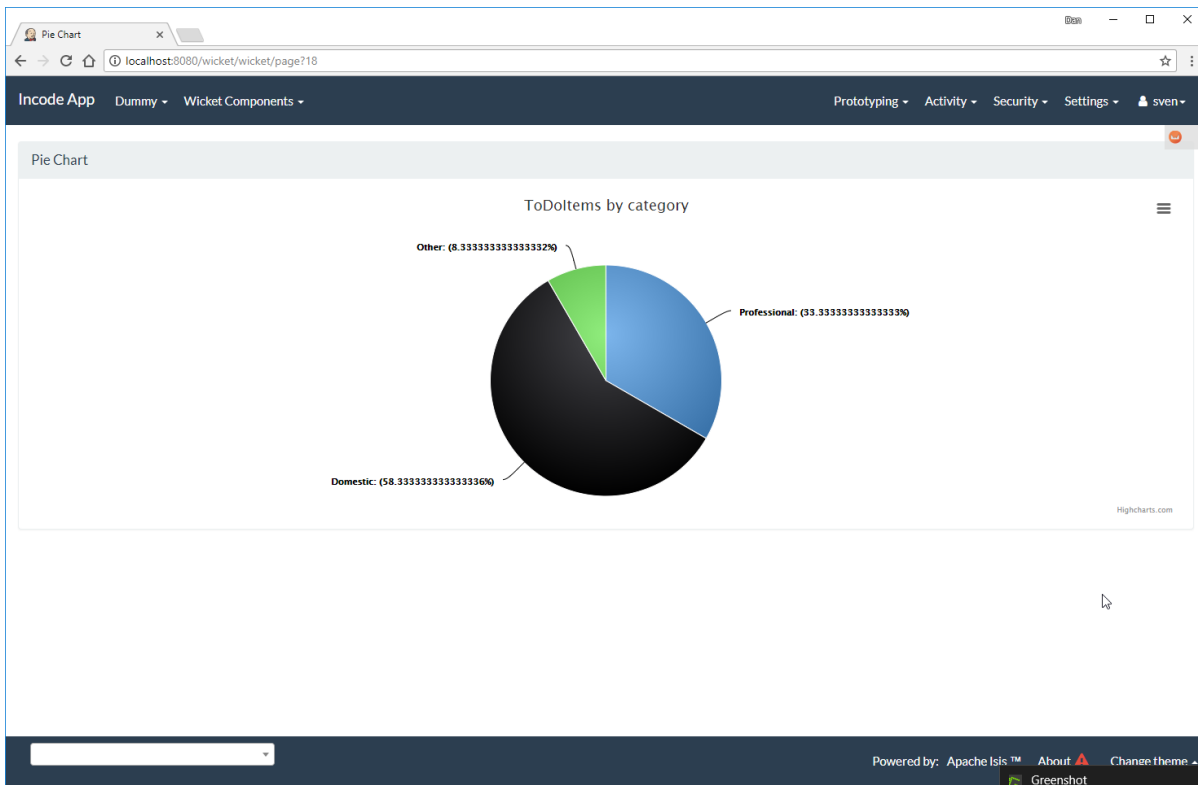


## Scalar Charts

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:



# 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>
  <version>1.15.1.1</version>
</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).