



CONNECTING
THE WORLD

The logo consists of a dark blue globe with a grid of latitude and longitude lines, centered within a light blue circular border. The letters 'NF' are positioned above the number '23', both in a large, white, sans-serif font.

NF
23

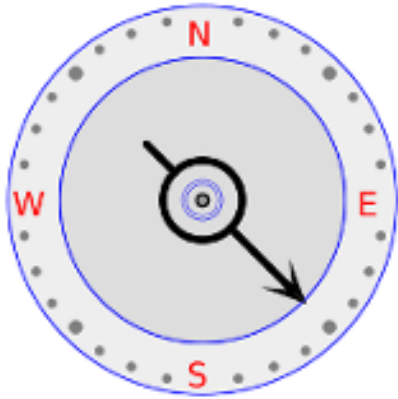
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Bajaux / Bajai Widgets

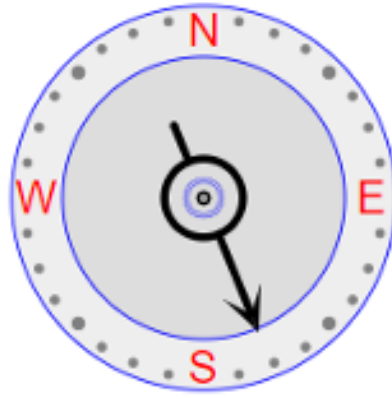
Andy Sutton
Software Engineer
@Tridium

... now over to Workbench

Standalone WebWidgets



BWidget impl



BWebWidget impl

The java widget uses eight static pictures.

[java source](#)

This javascript widget is a WebWidget (from the workbench palette) pointing to a js file in a module. It uses a single svg that is dynamically updated using jquery.

[js source](#)

They both have the same value source (a BRamp in fact).

Transparent Background

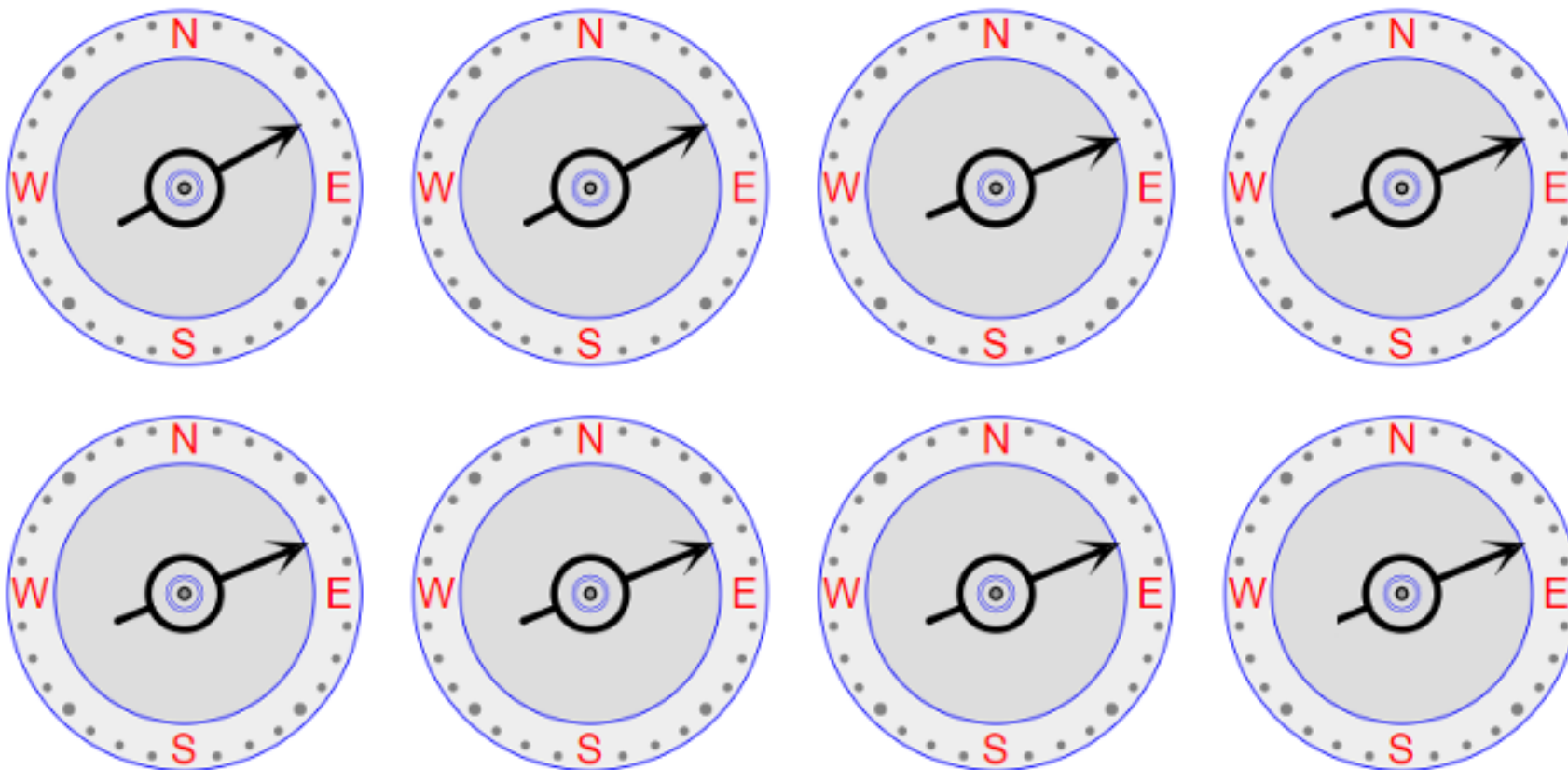
What's My
Background?

This is also a standard WebWidget
from the Workbench palette

BackgroundWidget.js

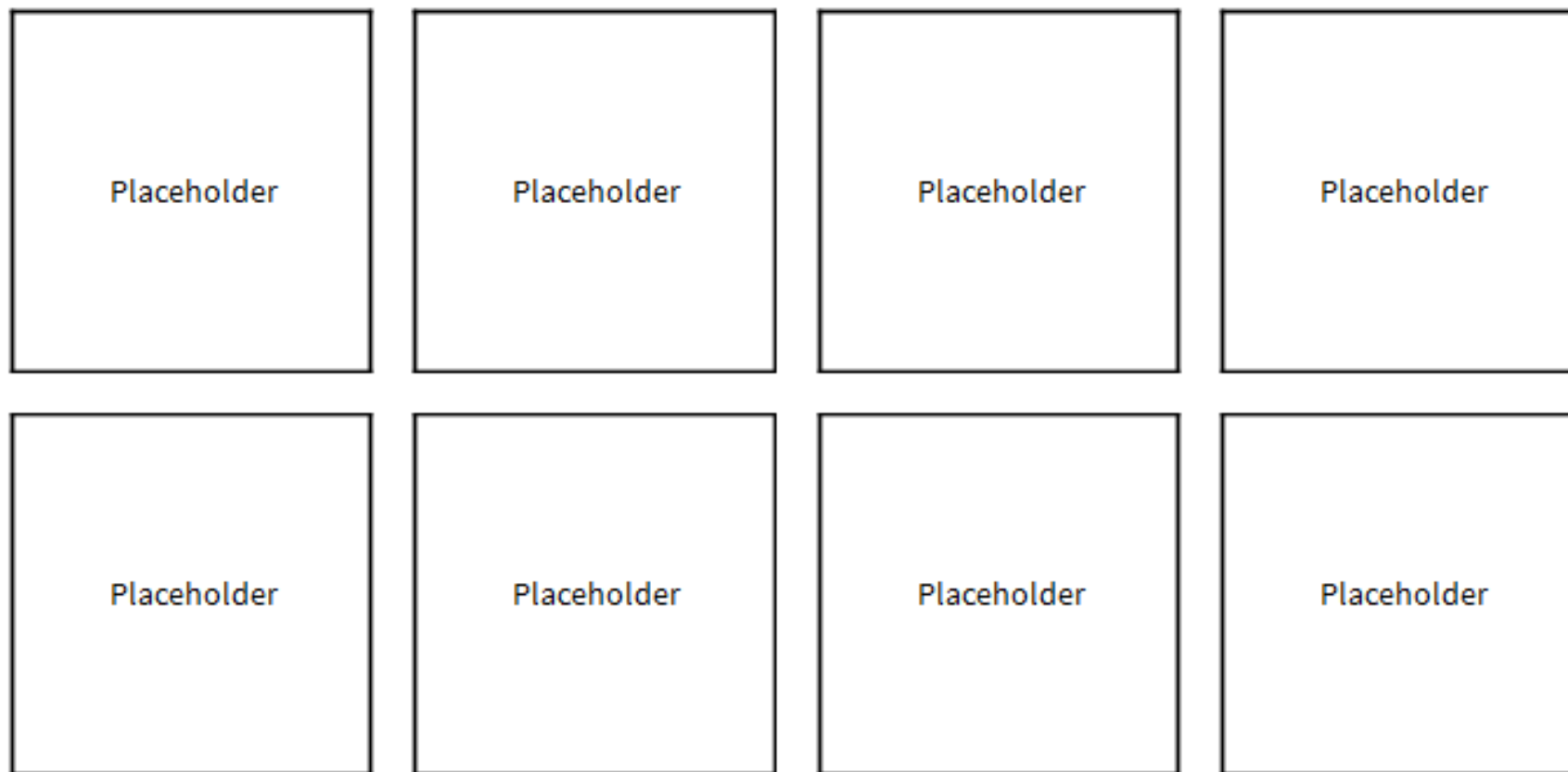
transparent.css

Lots of WebWidgets



Takes a long time to go into and out of the page.
And a long time to go into and out of Px edit mode.

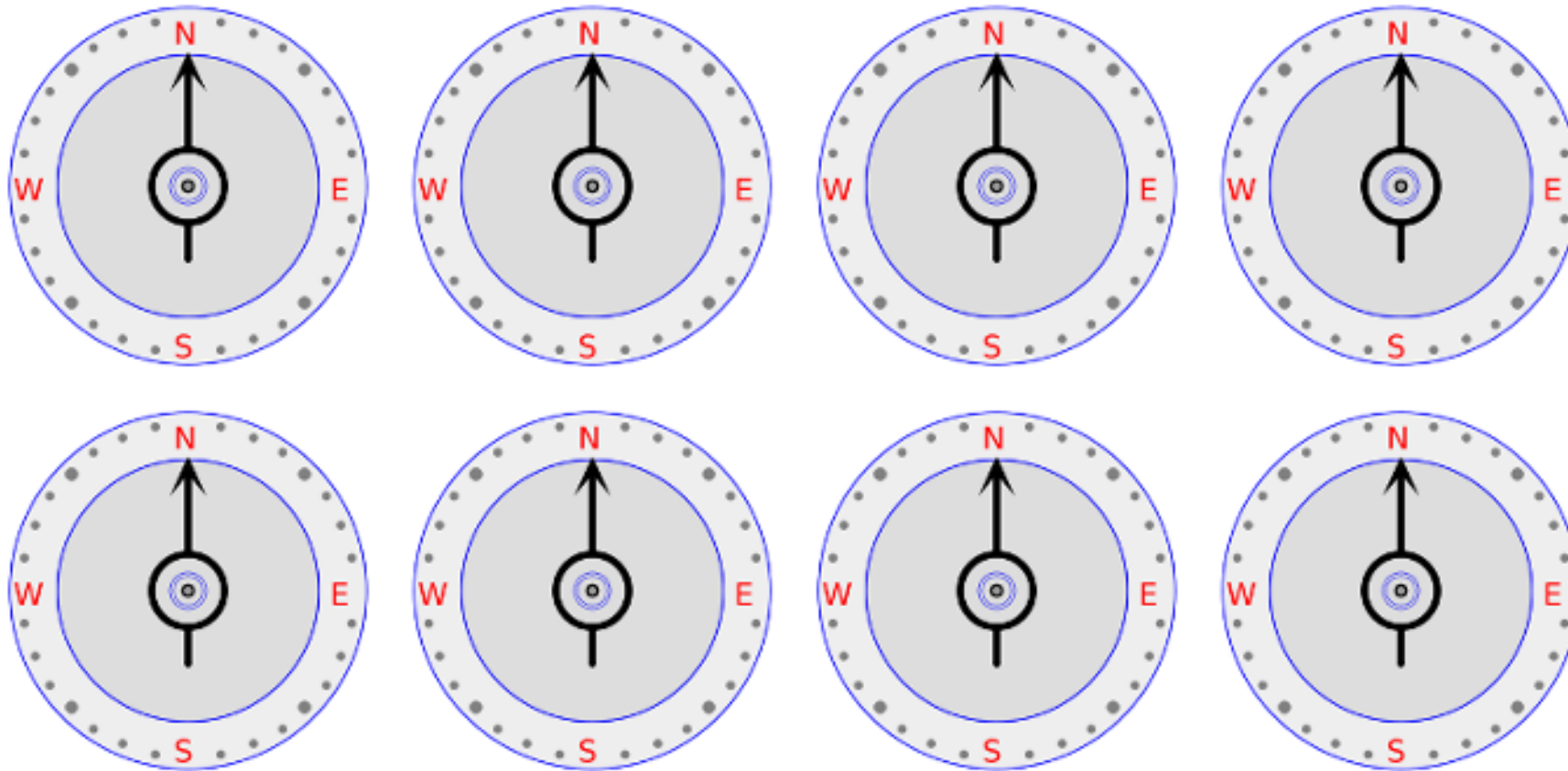
Placeholder Widgets



Placeholder widget

Placeholder agent

Placeholder Widgets #2



Or why not use the java compass widget as the placeholder?

Widget with js agent

Tridium Time
08:53:55

We have the same basic java widget, but now it has a javascript widget as an agent on it.

BBaseDigitalClock

Agent impl



ClockWidget.js

HxPx Implementation



The original clock widget



With a basic HxPx agent

The widget will appear in the browser with a basic HxPx agent

Basic HxPx impl

The HxPx widgets only update every 5s.

Controlled by system property: `hx.poll.freq=5000`

Inadvisable to reduce this - very hard on the jace.

HxPx Implementation #2



We have the same basic java widget, but now it has a javascript widget as an agent on it.

BBaseDigitalClock

Agent impl



ClockWidget.js

Widget with custom binding

Tridium Time
11:19:57

Now we're going to mix things up a bit!

We have the same basic java widget, but now it has a custom binding.

BBinding impl

Although the widget renders in the browser, it does not update. Standard px media does not cater for custom bindings.

Widget with custom binding UxMedia



So now we're in a UxMedia page.

And we've added a javascript implementation of the binding.

TypeExt impl

js binding impl

Drag/drop into UxMedia will give you a warning if the widget is unsupported.

Properties

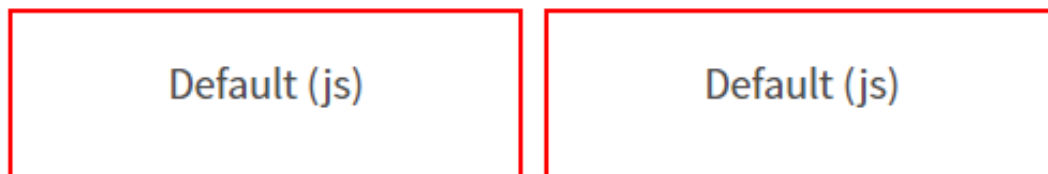
Standalone js widget



BPropertyWidget

PropertyWidget.js

BWidget with js agent



The javascript widgets have a red border!

In standard px widget properties are not passed to the javascript widget if it's an agent on another widget.

Properties UxMedia

Standalone js widget



BPropertyWidget

PropertyWidget.js

BWidget with js agent



The property value on the BWidget is the default, so its value is not passed to the js agent, so we see the js widget's default value.

The non default property value on the BWidget is now passed to the js agent.

spandrel

Tridium Time

17:08:49

DigitalClock.js

Here the js widget is again set up in a WebWidget.

Why weren't the other widgets in spandrel?

spandrel does not currently support svg - due in 4.14

spandrel UxMedia

Tridium Time

17:10:34

Why weren't the other widgets
in spandrel?

... because spandrel does not
currently support svg - due in
4.14

Summary

- Using javascript widgets is absolutely fine.
 - Unless you need transparent widgets in workbench, or
 - Lots of widgets on a page, then ...
- Use a hybrid solution where the js widget is an agent on your BWidget
 - The javascript widget is used in the browser
 - The BWidget is used in workbench

Summary

- The java and javascript widgets can be similar, or (very) different.
- Javascript widgets have access to more information in UxMedia, eg bindings, properties
- A BWidget may render automatically in the browser if there is already a HxPx implementation,
 - or if you add one yourself.
- Give spandrel a go!

Any questions?

hello

Q & A Session – 5PM

Submit questions to: supportemea@tridium.com
Subject: **DEV DAY**



Coming up next ...

Niagara Data Service API/NCS APIs

Craig Gemmill will introduce the new Niagara Data Service which will make the Niagara data model available via the cloud enabling new and exciting new applications.



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