User Interface customization for AEM 6

CQ Gems
May 7th, 2014

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4 years of AEM experience
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@gilknob

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working on AEM/Granite/Coral and
wherever Javascript is used

@visiongeist

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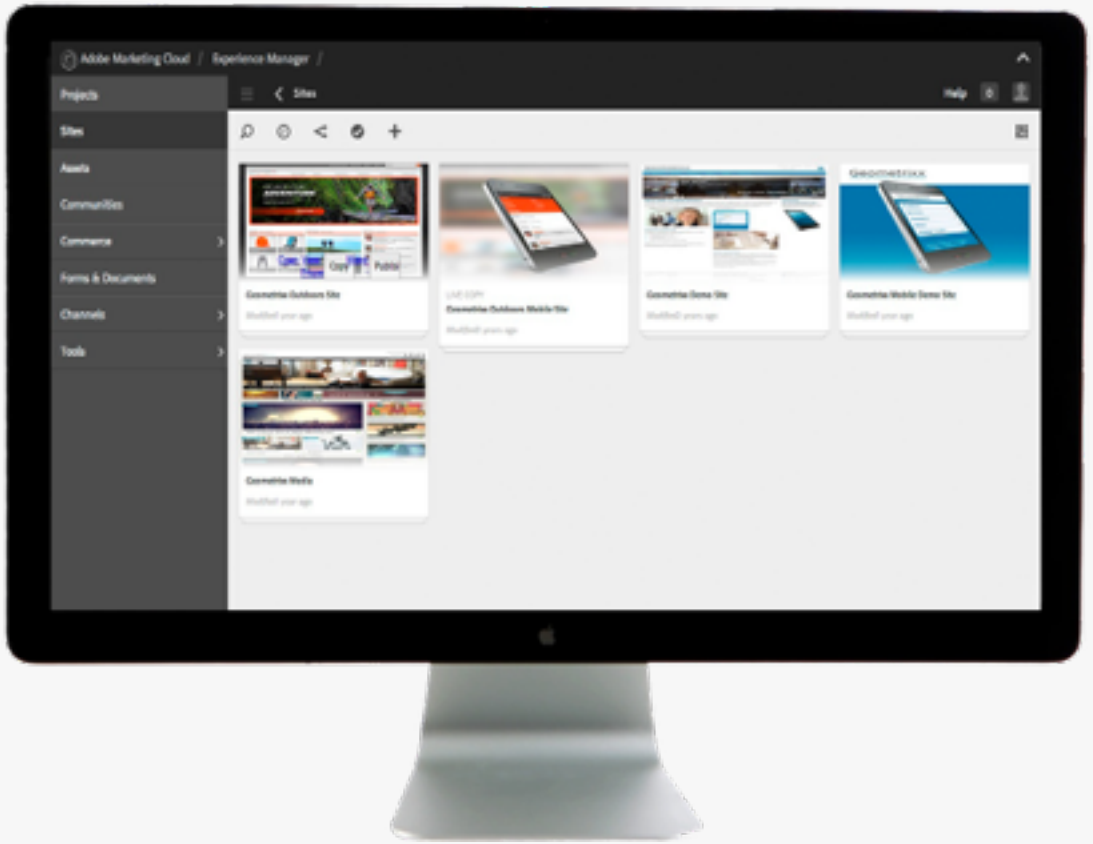
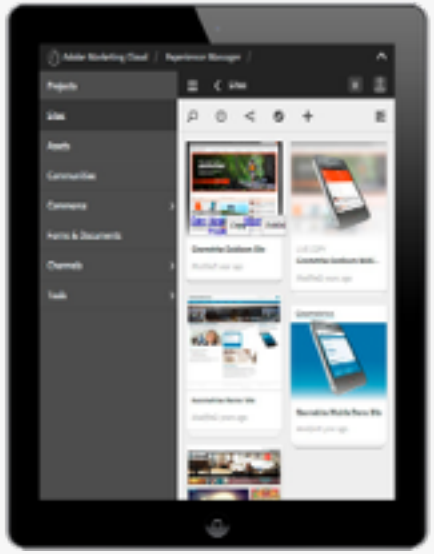
Introduction





New UI: Mobile first, Desktop in mind

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Introduction

- Granite UI introduced in 5.6.0
- Now spread across multiple UIs of the product
- UI framework provides base components

Challenges
Extensible technology for partners/customers

Goal of the session
Understand how to extend admin screens and page authoring

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Extending the Administration pages

- Sling Resource Merger
- Extend existing admin screen
- Create a custom admin screen
- Includes

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Sling Resource Merger

https://issues.apache.org/jira/browse/SLING-2986

- Custom resource provider
- Overlays of resources using resource resolver search paths
- Working as a diff
- Custom Sling vocabulary

Overall goal: override in /apps, never touch /libs

- Guarantees upgradability
- Easier for customers to debug

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Sling Resource Merger

Add or override a property

Create the corresponding property within /apps
(the property will have priority based on Sling Resource Resolver configuration)

Changing the type of the property is supported

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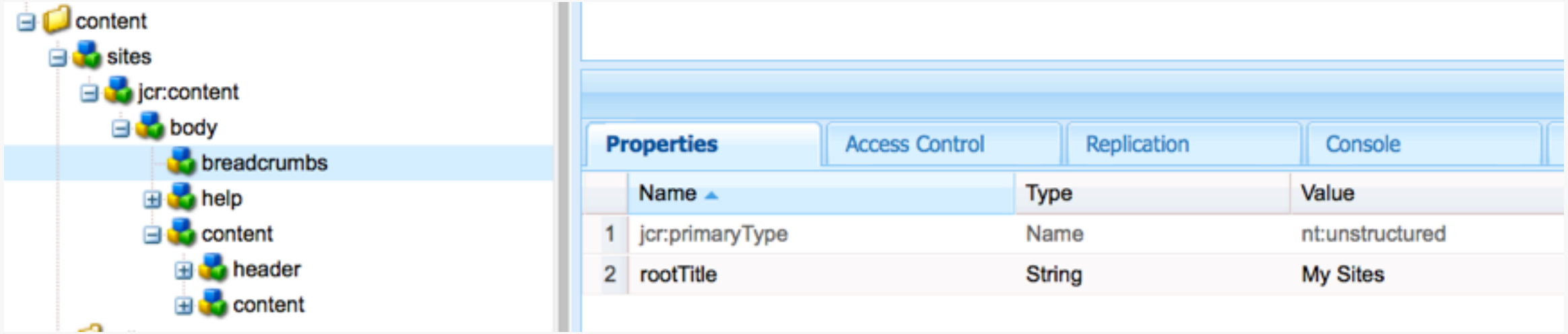
Sling Resource Merger

Add or override a property



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Sling Resource Merger

Delete one or more properties

Create the corresponding node within /apps,
Add sling:hideProperties property: list of properties to delete (String[])

* wildcard can be used to delete all the properties

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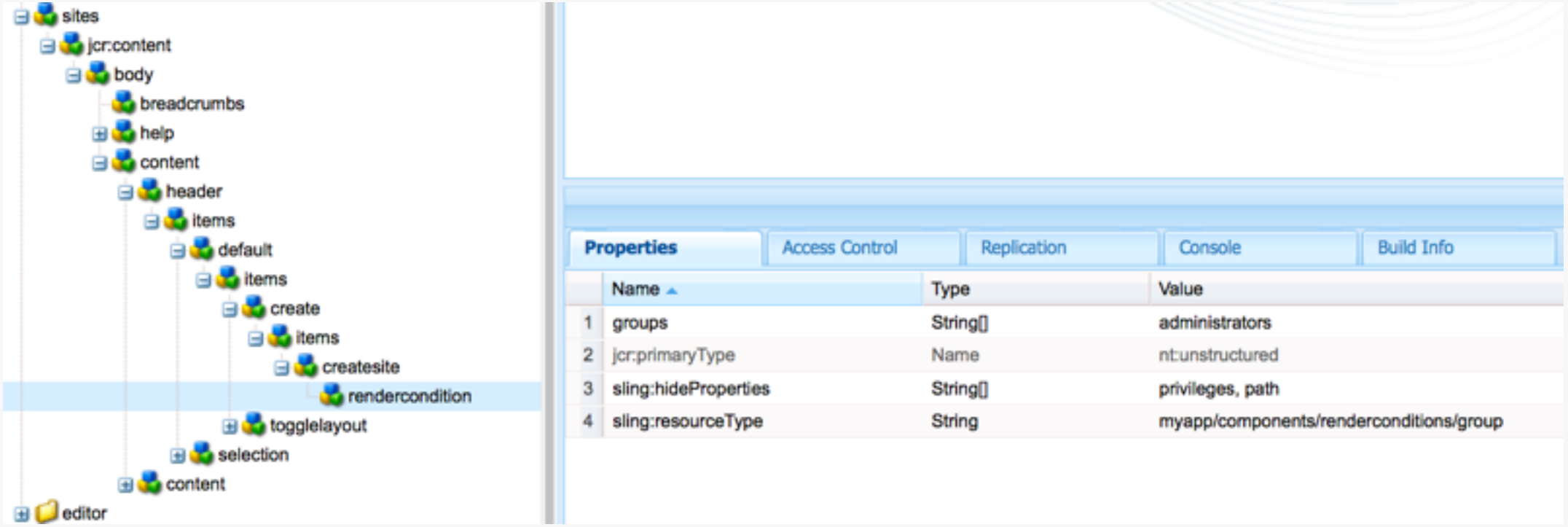
Sling Resource Merger

Delete one or more properties



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Sling Resource Merger

Delete a node (and its children)

Create the corresponding node within /apps
Set sling:hideResource to true (Boolean)

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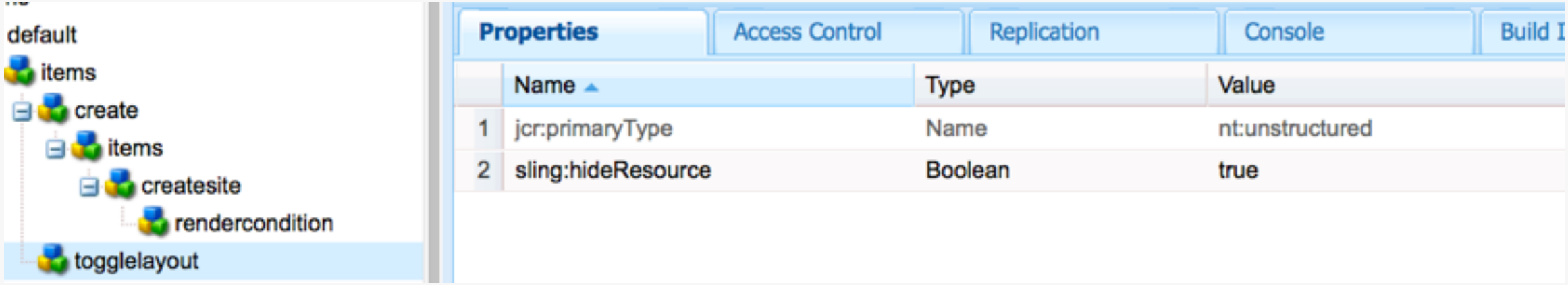
Sling Resource Merger

Delete a node (and its children)



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Sling Resource Merger

Delete children of a node (but keep the properties of the node)

Create the corresponding node within /apps,
Add sling:hideChildren property: list of children to delete (String[])

* wildcard can be used to delete all the children

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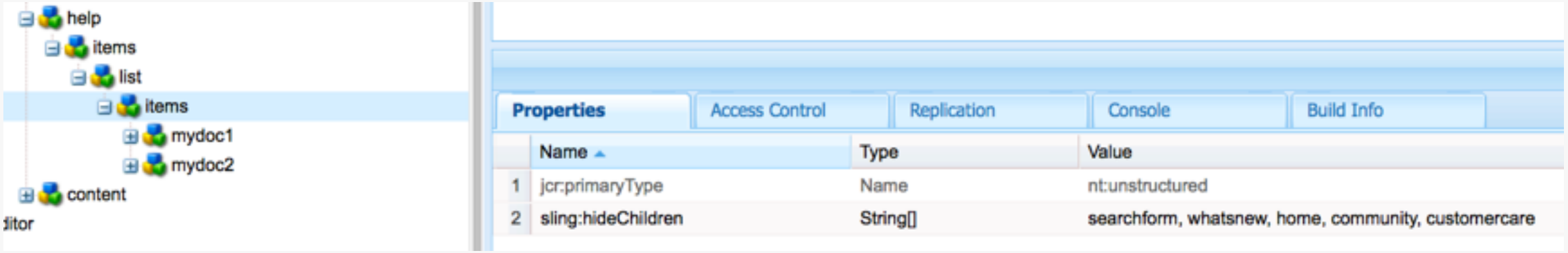
Sling Resource Merger

Delete children of a node



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Sling Resource Merger

Reorder nodes

Create the corresponding node within /apps
Set sling:orderBefore to the name of the sibling where that node should be reordered before (String)

TODO: support redefining the whole list of children

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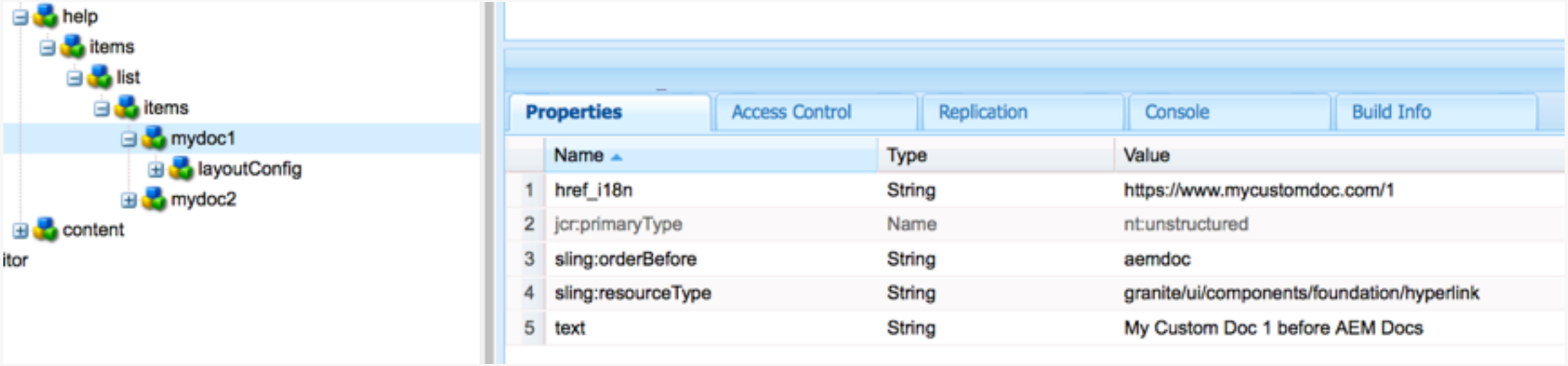
Sling Resource Merger

Reorder nodes



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Extend existing admin screen

Sling Resource Merger is our friend!

- Update root title for breadcrumb
- Custom documentation links (sling:hideChildren, sling:orderBefore)
- Additional toolbar action
- Restrict Create Site to administrators (custom rendering condition)
- Default layout to list view, removed toggle to card view (sling:hideResource)

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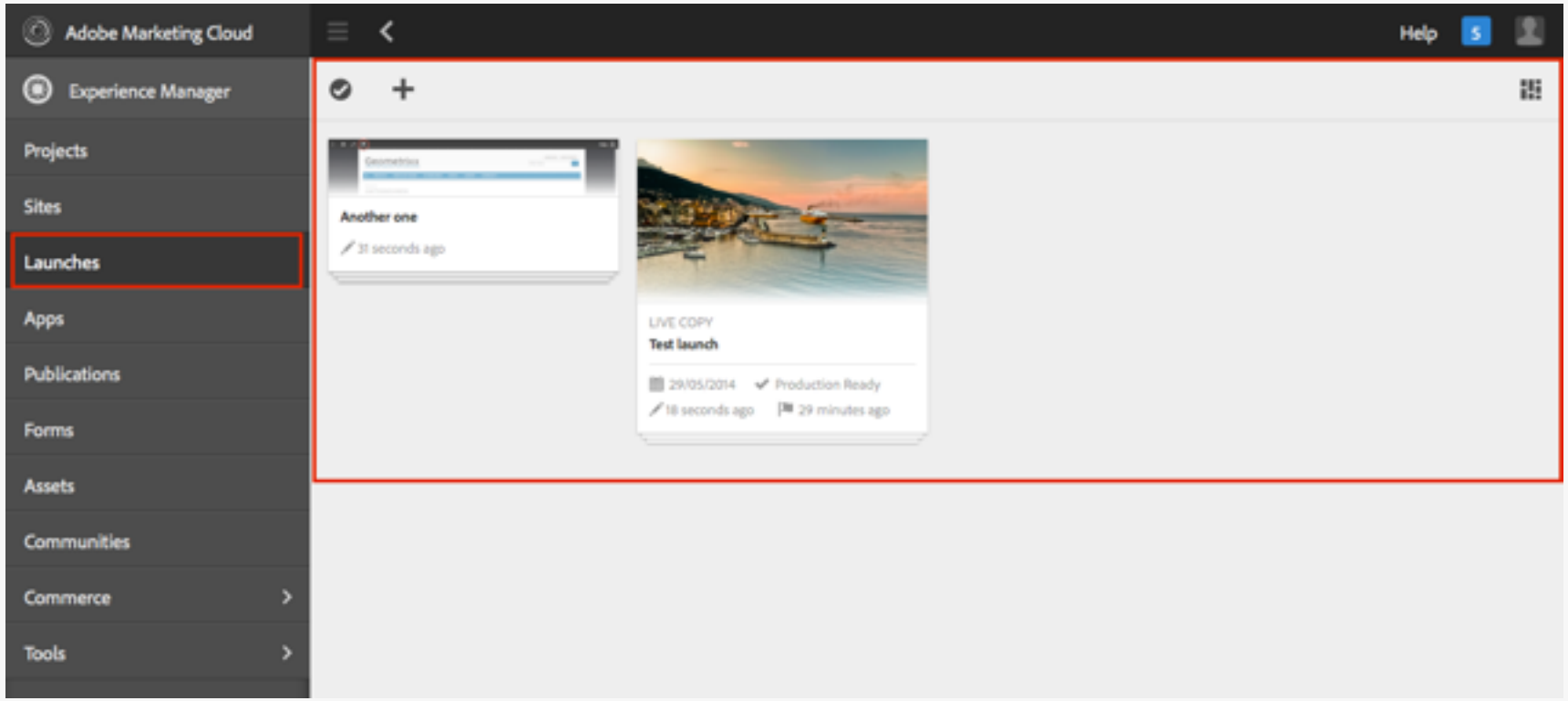
Create a custom admin screen

Launches Console

- Custom console
- Custom menu entry
- Specific actions



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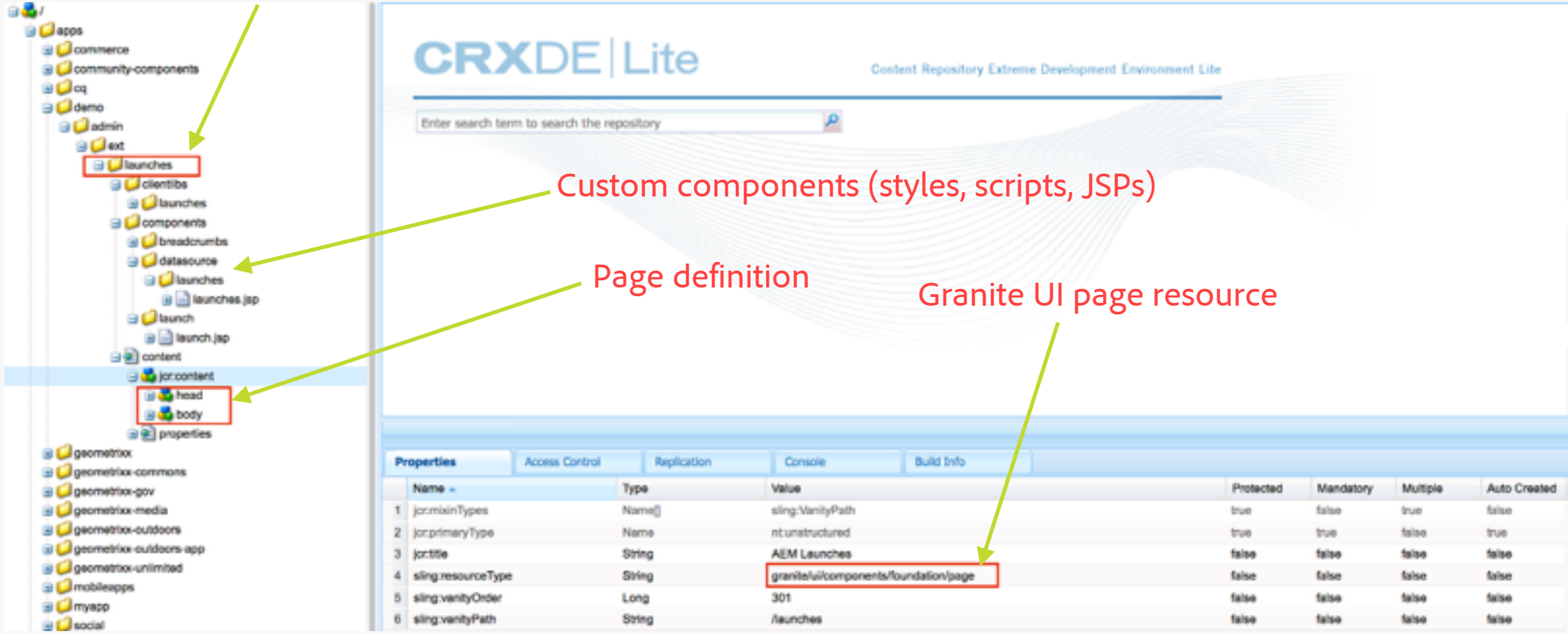
Create a custom admin screen

Root space for Launches console



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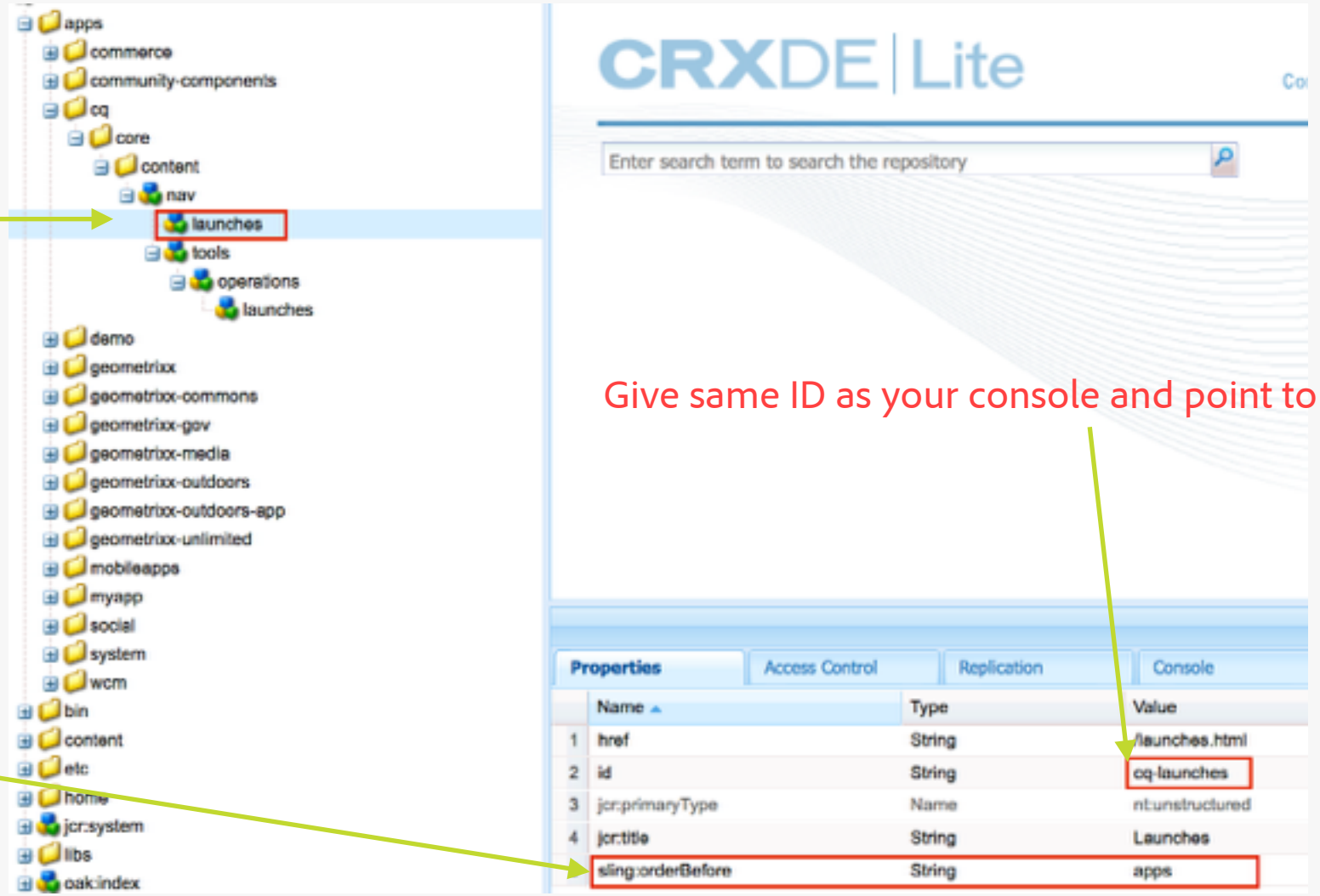
Create a custom admin screen

Add in navigation

Extend navigation

Specify location in the tree

Give same ID as your console and point to it



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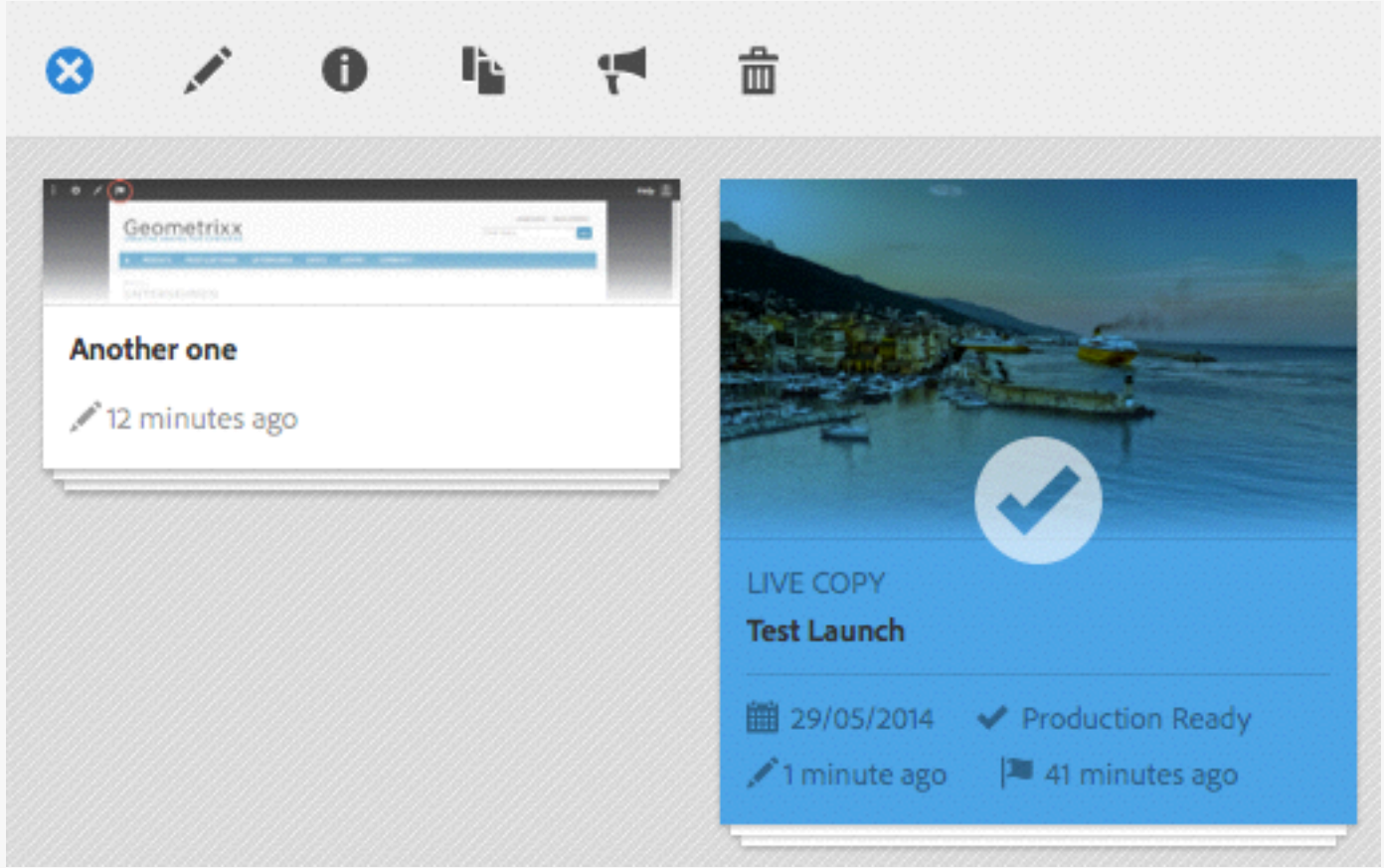
Create a custom admin screen

Custom action bar

- Build your own components
- Include the corresponding client libraries for custom actions



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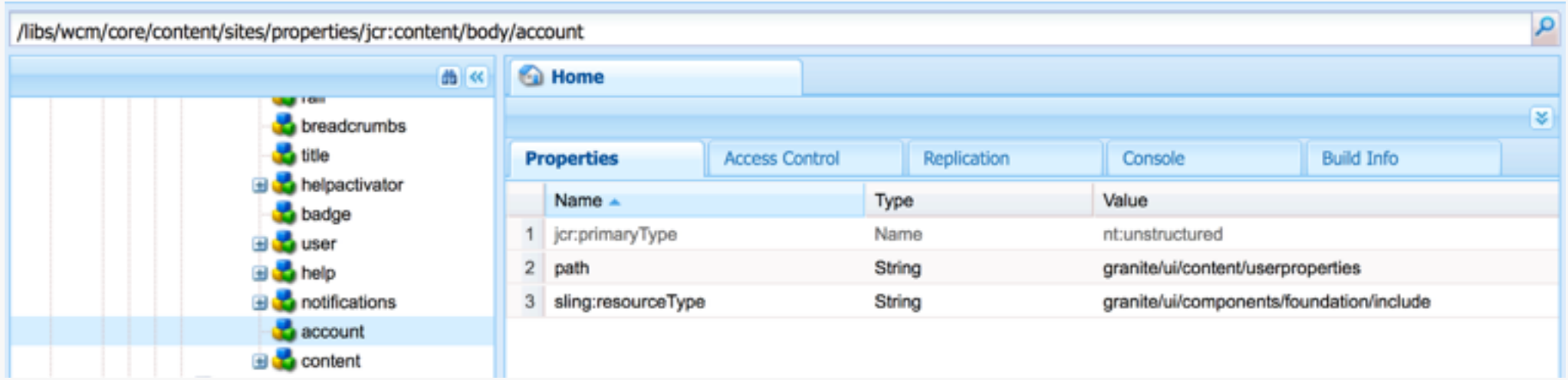
Granite UI Includes

granite/ui/components/foundation/include

- Specify path to include



Can be used to extend component dialogs

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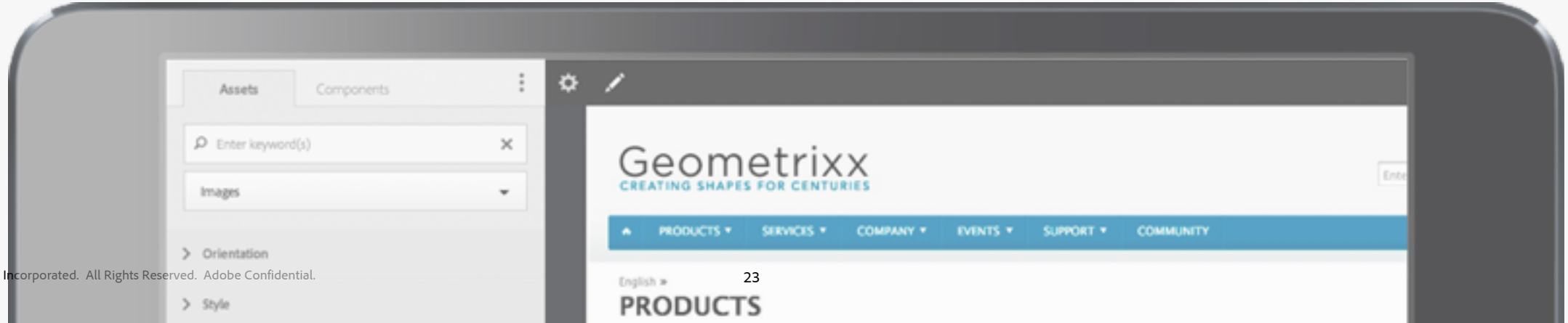
The new Page Authoring in AEM 6.0



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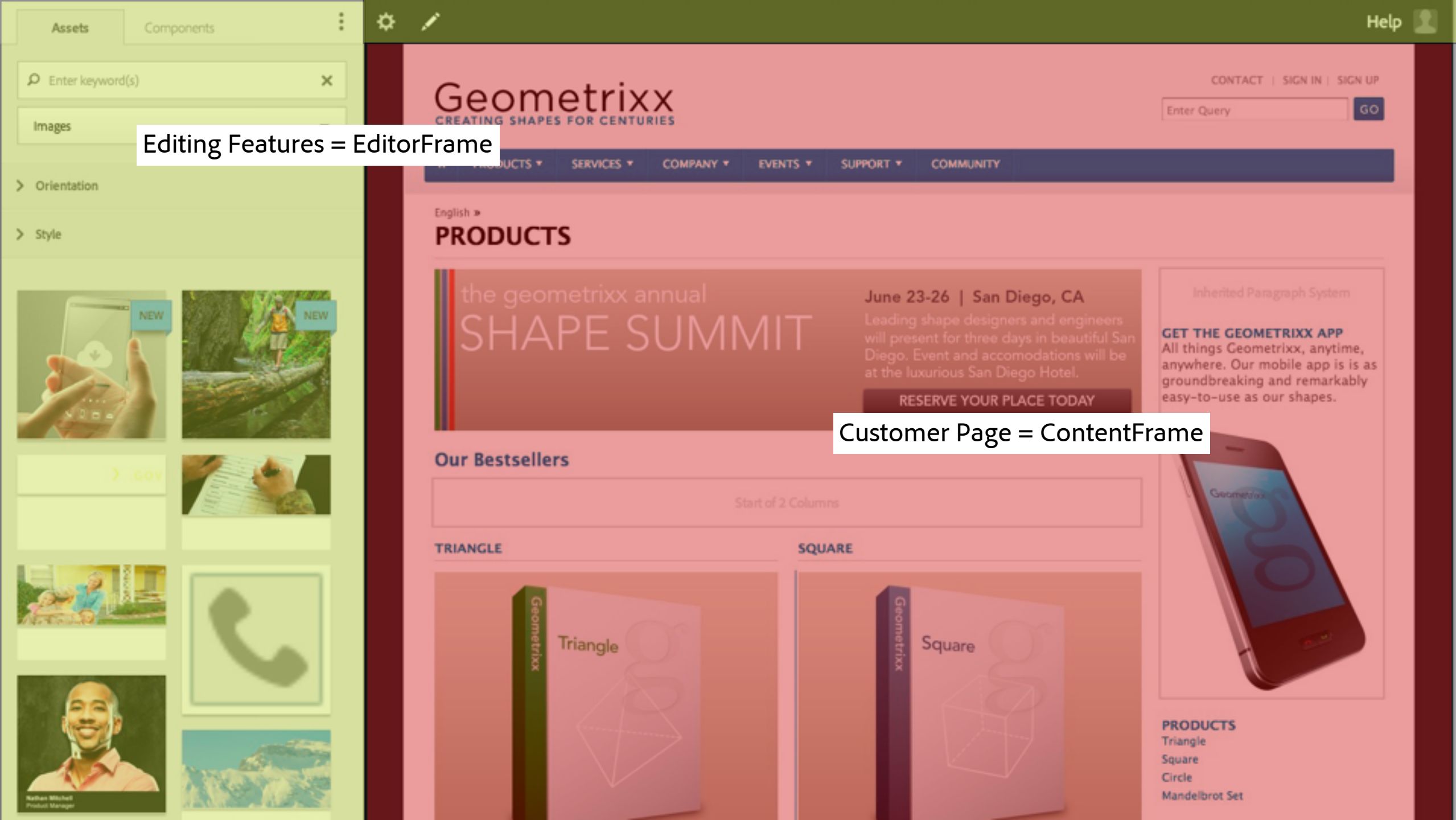
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What is an Editable?

- Constructor: Granite.author.Editable

- inherits from Granite.author.Inspectable

- is an instance of a component on a page

- allows access to the page's DOM and its overlay

- is aware of its JCR path and edit configuration

- all Editable's of the current page are accessible through Granite.author.store

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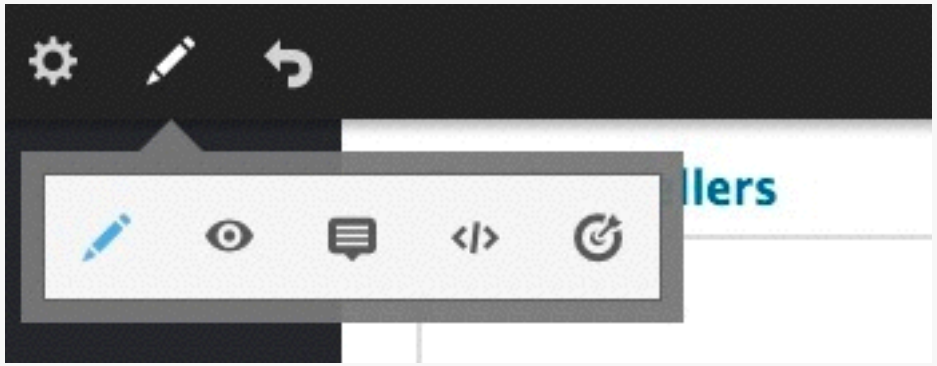
What is a layer?

- A layer is an independent bundle of functionality which can be activated in order to manipulate or interact with the page

- What can I do with a layer? What ever you want.
(but please cleanup:-)



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Extending the Page Authoring

- Toolbar action
- Page action
- Inplace Editor
- Custom Layer
- Assetfinder Group

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Before we start…

- Javascript Namespace: Granite.author

- ClientLib category hook: cq.authoring.editor.hook

- Overlays are managed by overlayManager

- Current page's Editables are in Granite.author.store

- A lot of page data is in Granite.author.page

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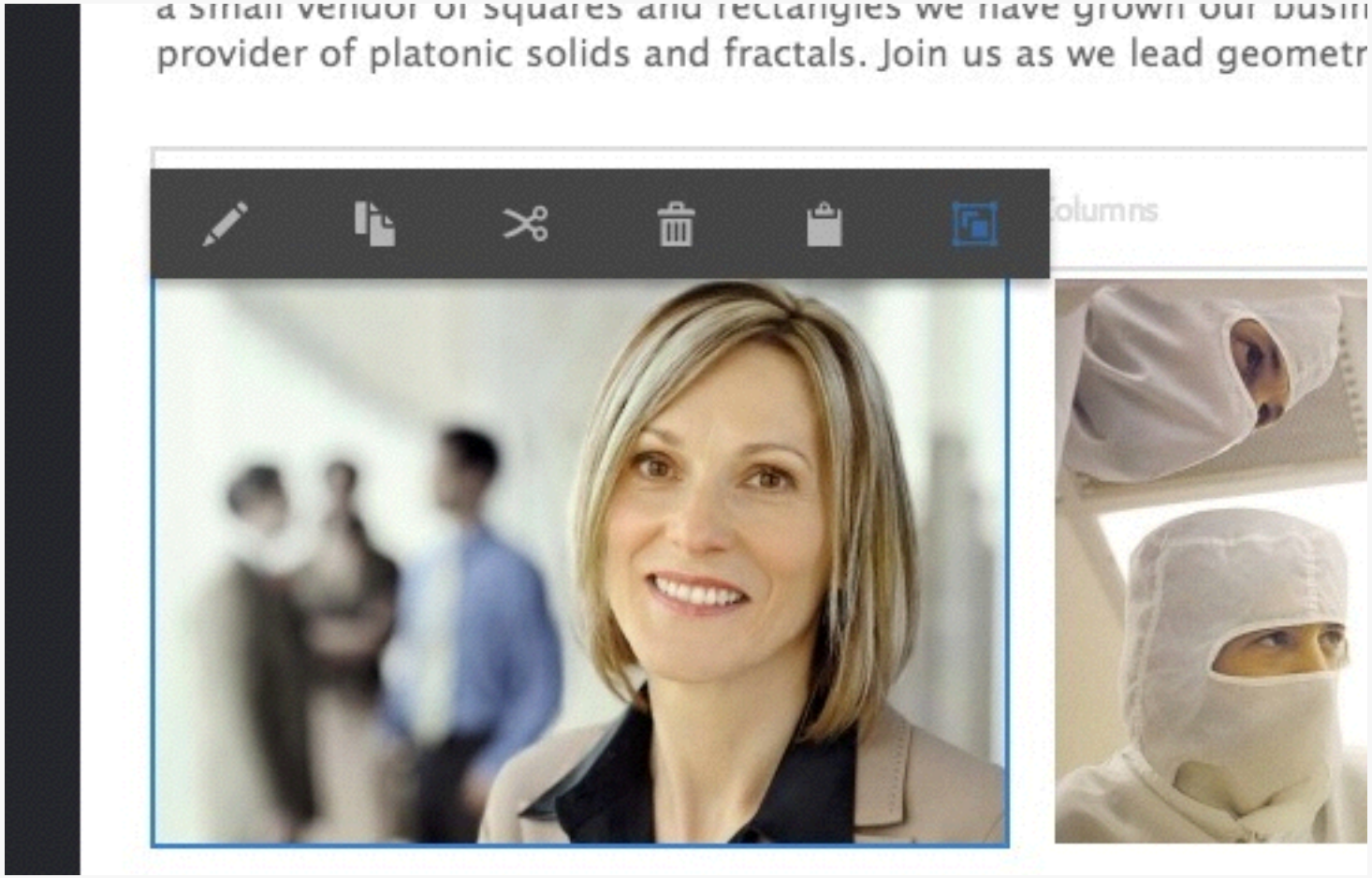
Custom toolbar action



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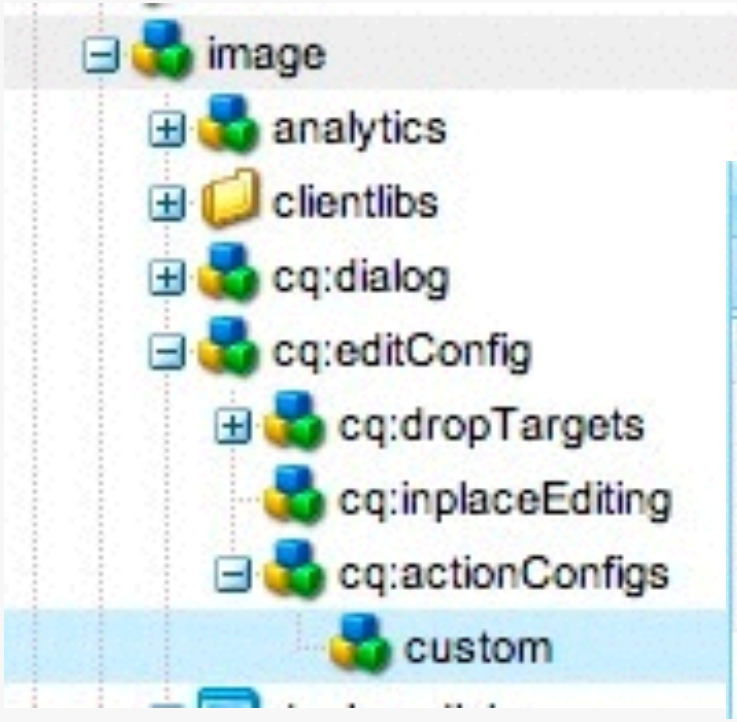
Still working: Adding custom actions to components



Properties | Access Control | Replication | Console | Build Inf

	Name	Type	Value
1	handler	String	function () { alert('my custom action') }
2	icon	String	coral-Icon--gear
3	jcr:primaryType	Name	nt:unstructured
4	text	String	Custom action

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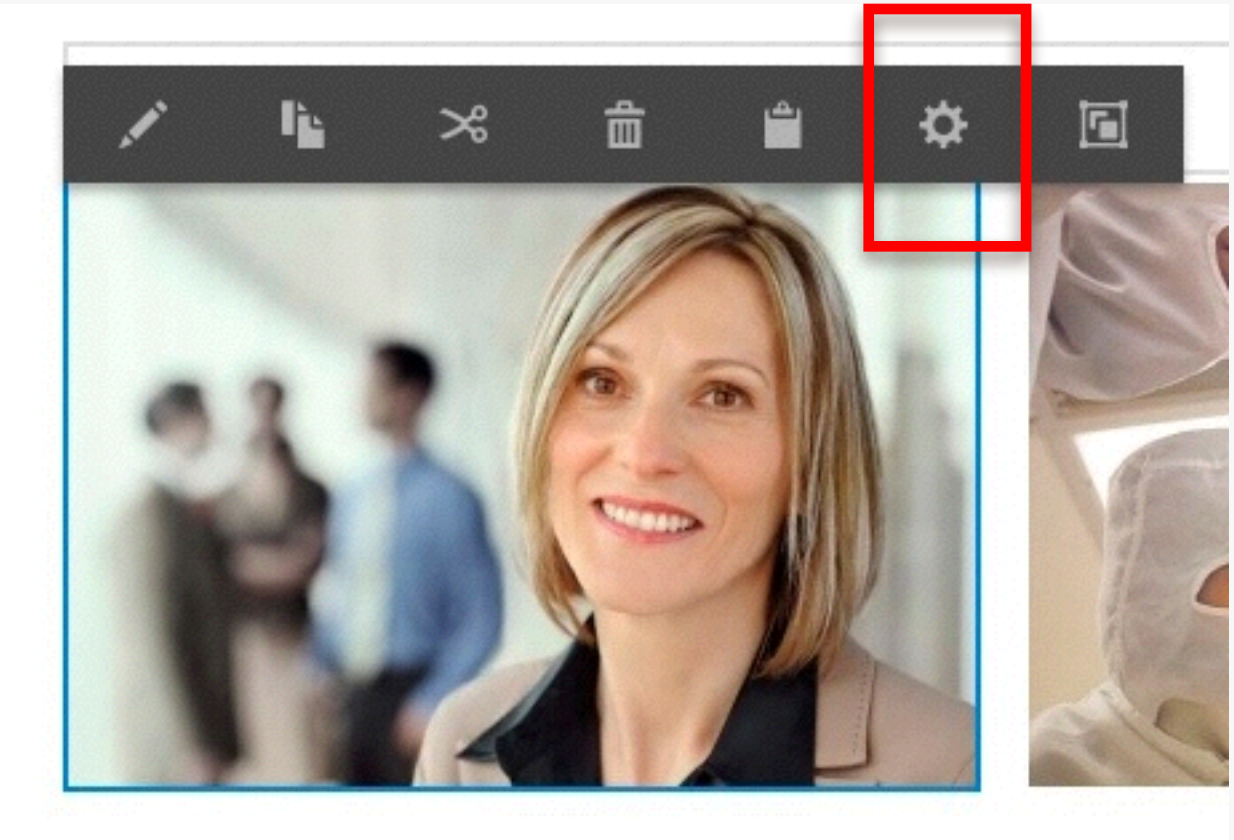

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New: Manipulating the toolbar with Javascript

- component independent actions
- understand eventing in the authoring channel
- use global objects
- toolbar entry definition

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```
'CUSTOM': {
    icon: 'coral-Icon--gear',
    text: Granite.I18n.get('Custom'),
    handler: function (editable, param, target) {
        alert('my custom action');
        // do not close toolbar
        return false;
    },
    condition: function (editable) {
        // optional condition to show action
        return !!editable.config.orderable;
    },
    render: function (dom) {
        // custom rendering
        return dom;
    },
    // could be executed when only one editable is selected
    // default: false
    isNonMulti: true
}
```

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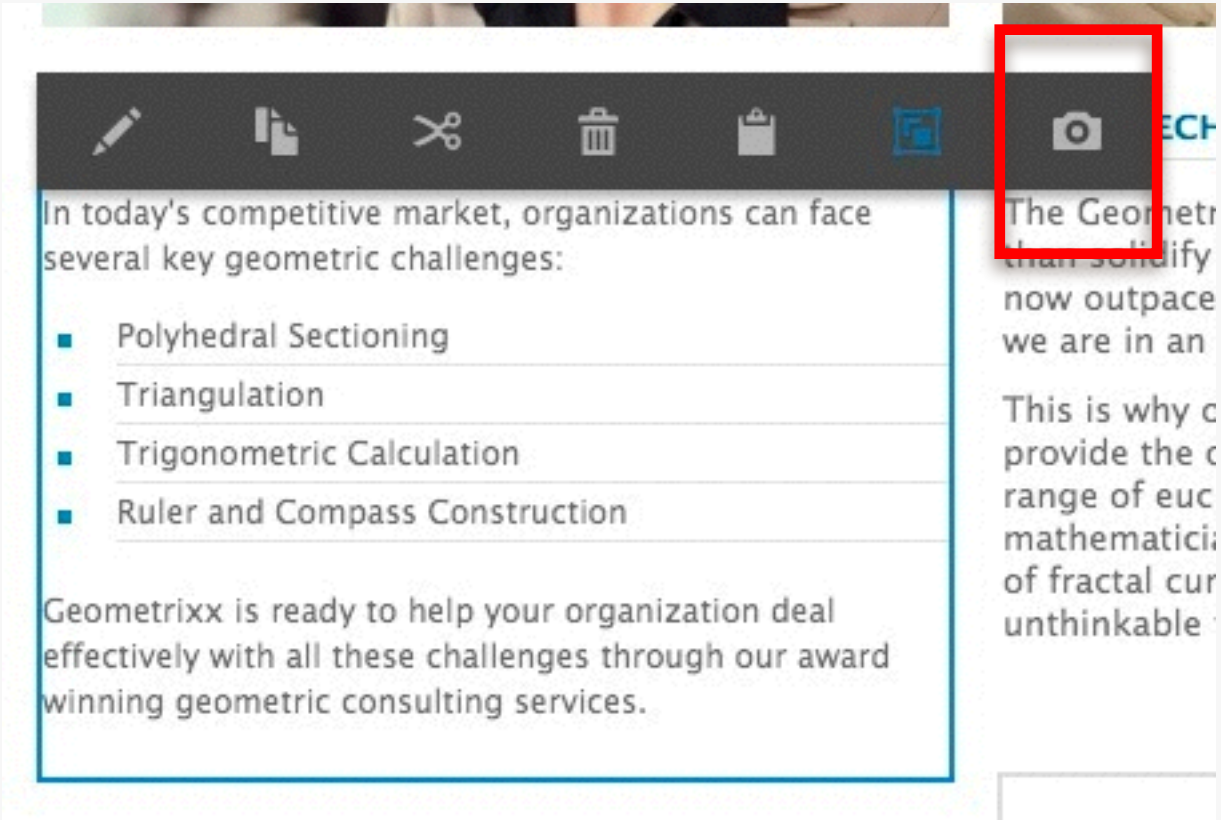
Adding a screenshot functionality



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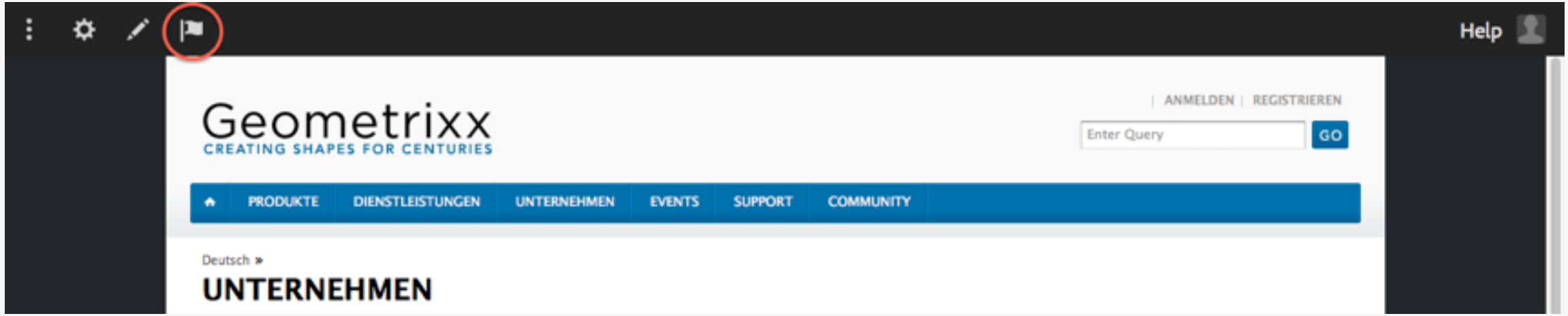
Custom page action

Add an action to page authoring toolbar



Example: a button to translate the page

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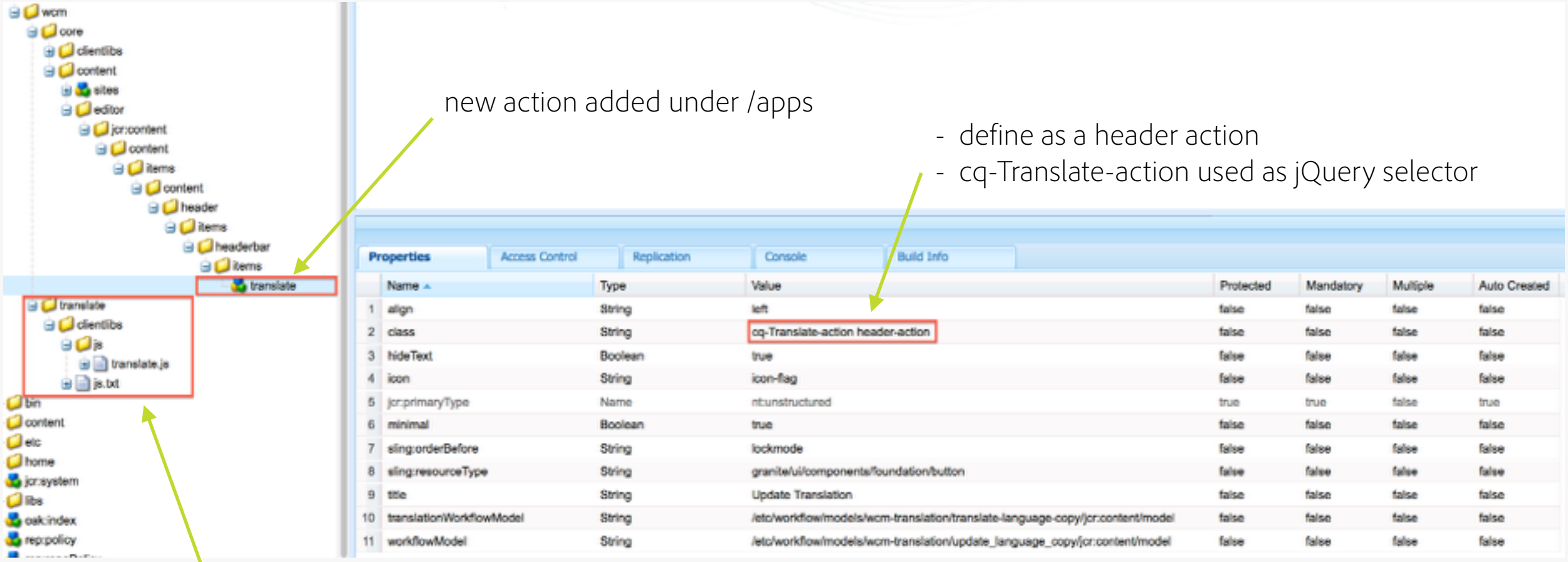
Custom page action



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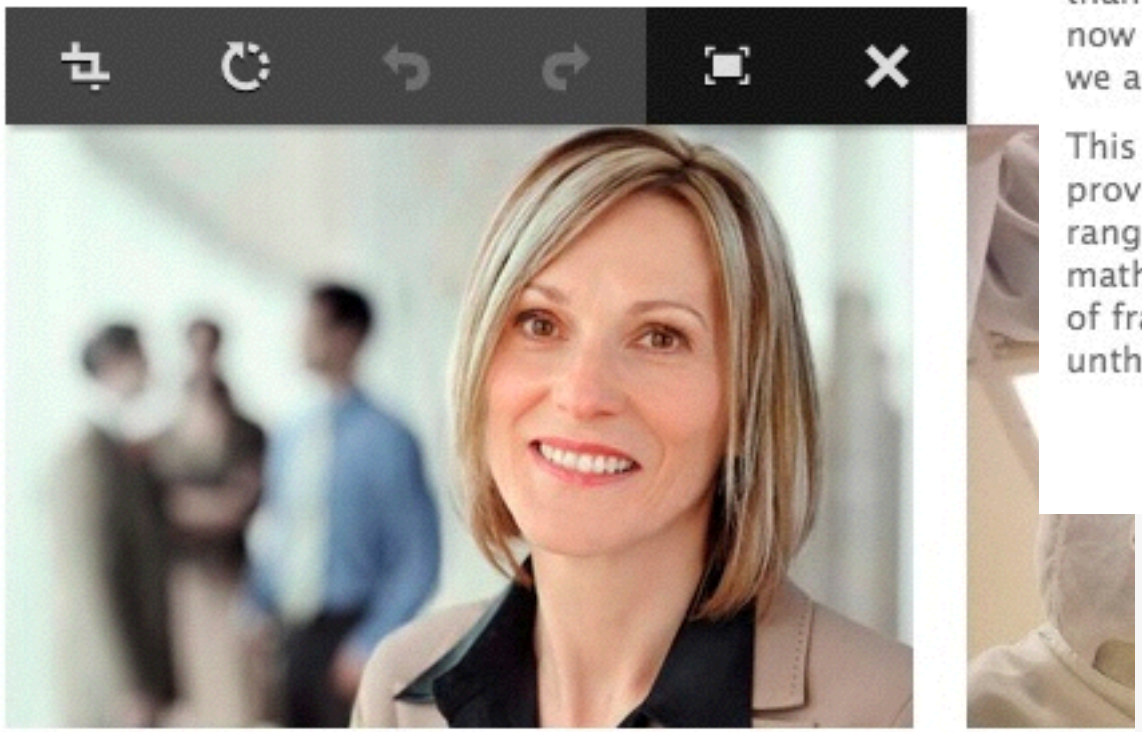
Inplace Editors



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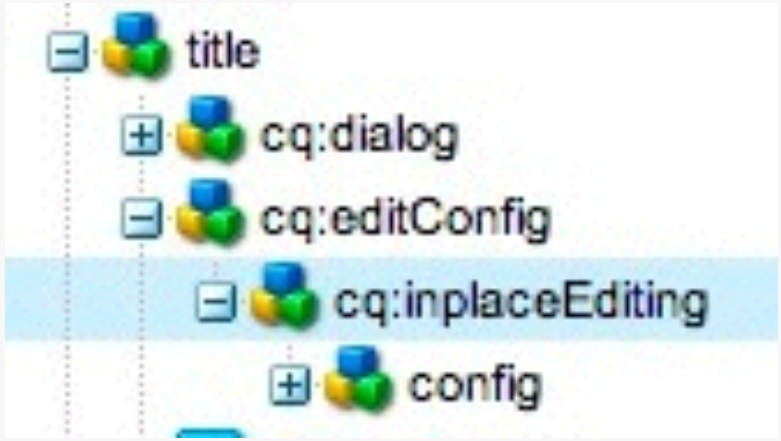
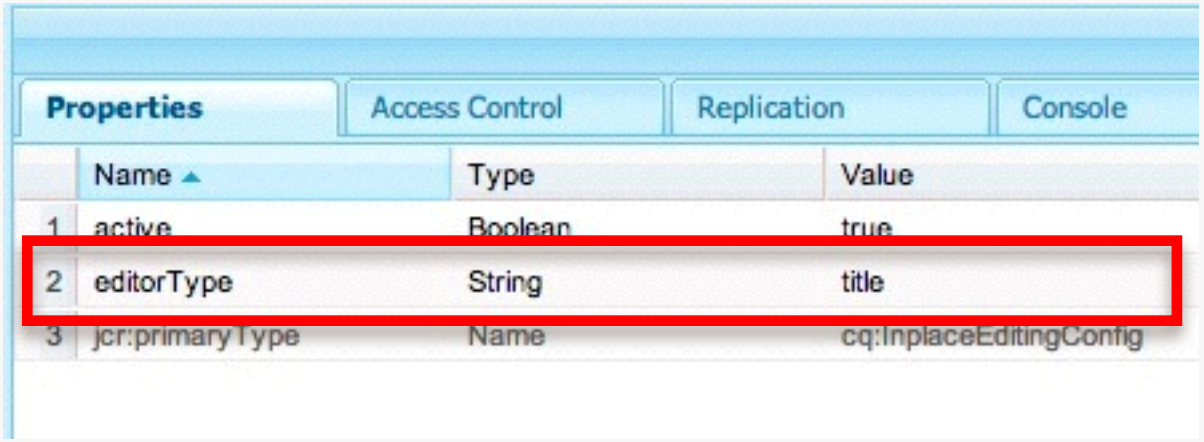
Create an Inplace Editor





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```
var MyEditor = function () {

};

MyEditor.prototype.setUp = function (editable) {

};

MyEditor.prototype.tearDown = function (editable) {

};

Granite.author.editor.register('myeditor', new MyEditor());
```

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How we created the title editor

- manipulate the Editable's DOM

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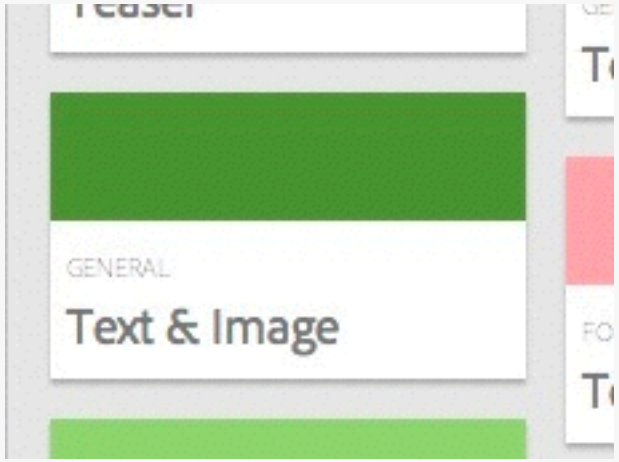
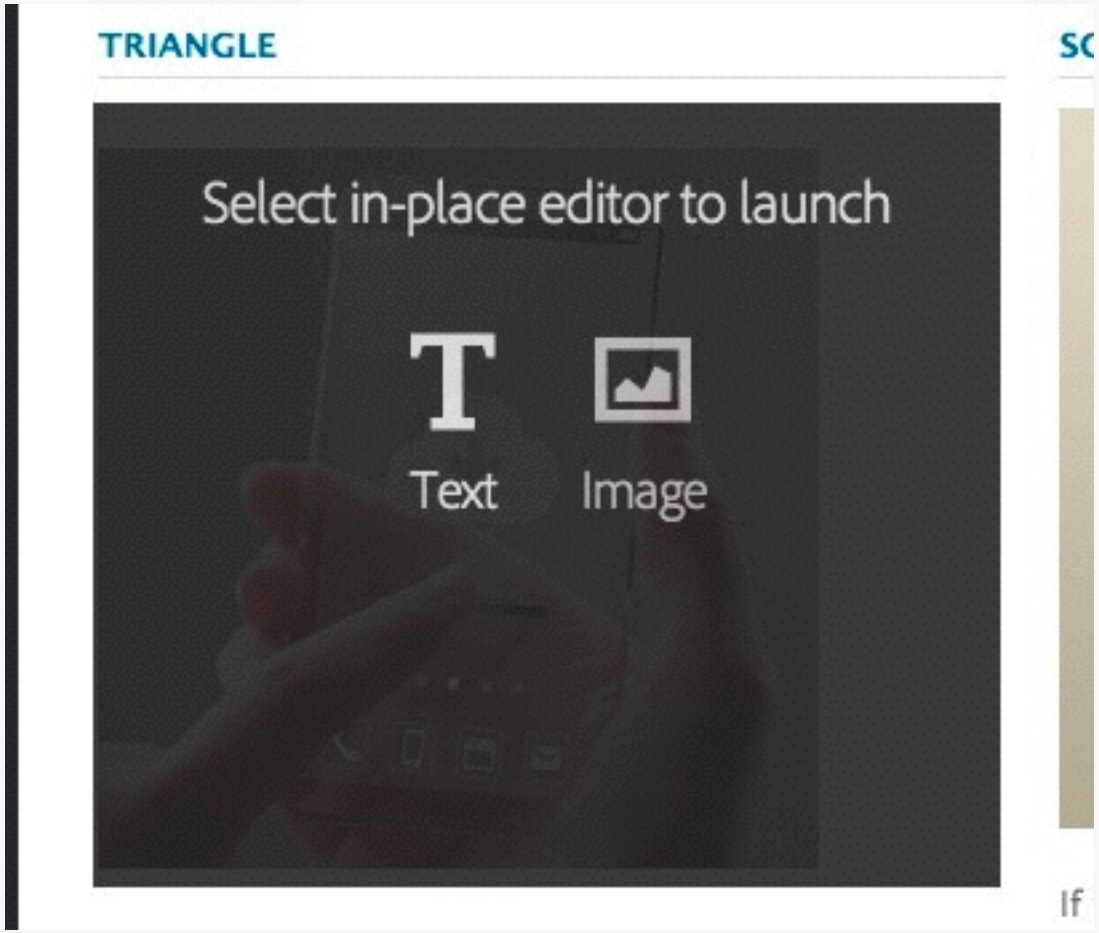
Create a Hybrid Editor





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```
var textImageEditorConfig = {
    editors: [
        {
            editorType: "text",
            imageClass: "coral-Icon coral-Icon--text coral-Icon--sizeL"
        },
        {
            editorType: "image",
            imageClass: "coral-Icon coral-Icon--image coral-Icon--sizeL"
        }
    ]
};

Granite.author.editor.TextImageEditor = function () {
};

Granite.author.editor.TextImageEditor.prototype =
    new Granite.editor.HybridEditor(textImageEditorConfig);

// register the editor to the editor registry
Granite.author.editor.register('textimage', new Granite.editor.TextImageEditor());
```

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Creating a layer

- Build-in layers: Edit, Preview, Annotation, Developer, Target
- Important objects: layerManager, overlayManager, persistence
- Change the view and actions

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```
var MyLayer = function () {
    // Call super constructor
    this.constructor.prototype.constructor.call(this, "MyLayer", "coral-Icon--bug");
};

MyLayer.prototype = new author.Layer();


MyLayer.prototype.setUp = function () {
    // allow user interaction with the iframe content (e.g., click on links)
    author.ContentFrame.showFullScreenMask(false);

    // Close the sidepanel
    author.SidePanel.close();
};

MyLayer.prototype.tearDown = function () {
    // prevent user interaction with the iframe content (e.g., click on links)
    author.ContentFrame.showFullScreenMask(true);
};

// register at the manager
author.layerManager.registerLayer(new MyLayer());
```

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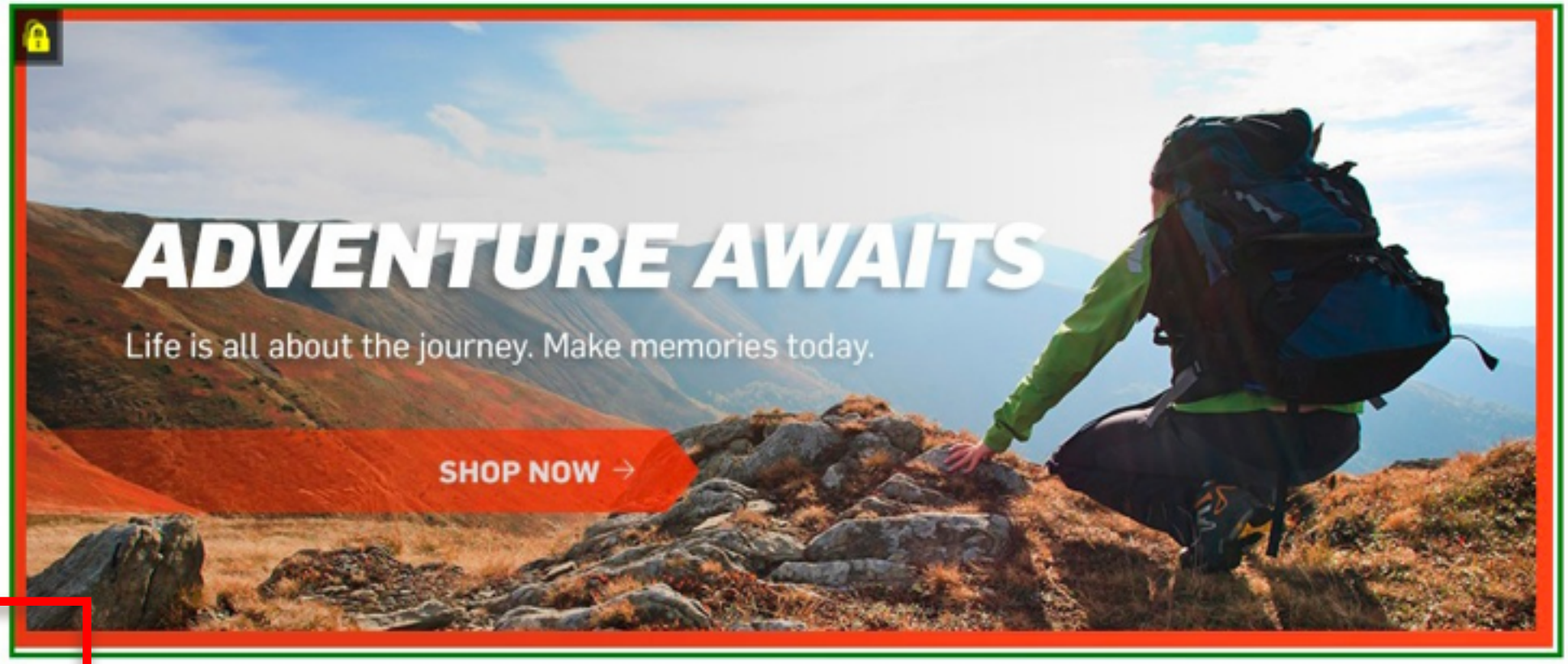
Help

(Anonymous Surfer) My Cart Sign In or Register Search

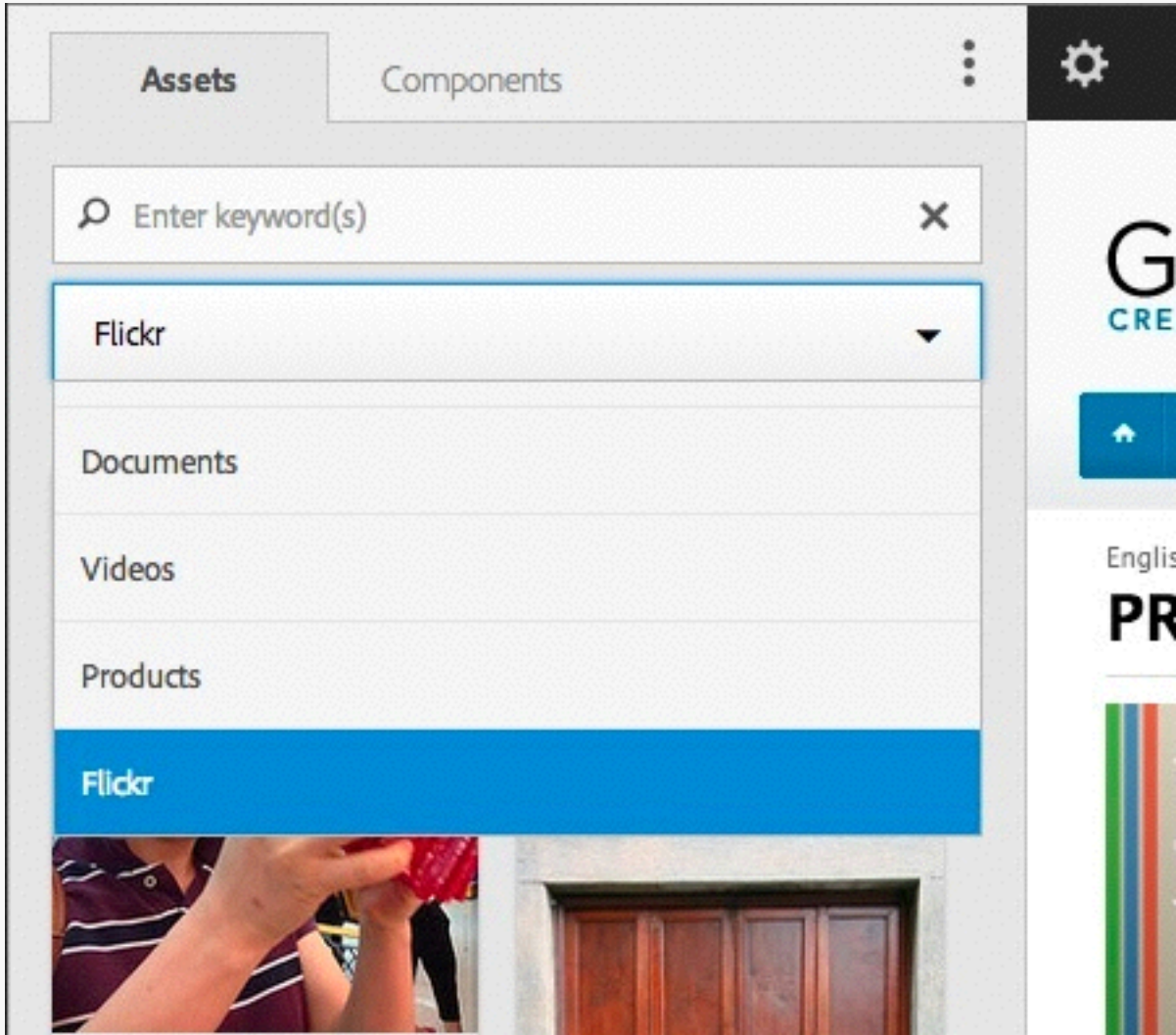
MEN'S WOMEN'S EQUIPMENT ACTIVITIES COMMUNITY SUPPORT BRAND



Start of 3 Columns

Assetfinder

- Adding a new asset group
- Handling the rendering
  Granite.author.ui.assetFinder
- Handling the Drag&Drop
  Granite.author.dropController
- Handling the Persistence
  Granite.author.edit.actions or
  Granite.author.persistence



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Resources

Upcoming resources on Package Share

- Sample packages
- CRXDE Lite extension tool
- Dialog conversion tool

Extension points currently being documented

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Questions & Comments?

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