

Writing UI plugin with **AngularJS**

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Topics covered



- AngularJS fly-through
- oVirt UI plugins fly-through
- UI plugin with AngularJS walk-through
- Live demo

AngularJS

<http://angularjs.org/>

Data Binding

MVC

Routing

Testing

jQuery

Templates

History

Factories



AngularJS is a full-featured
SPA framework

ViewModel

Controllers

Views

Directives

Services

Dependency Injection

Validation

AngularJS

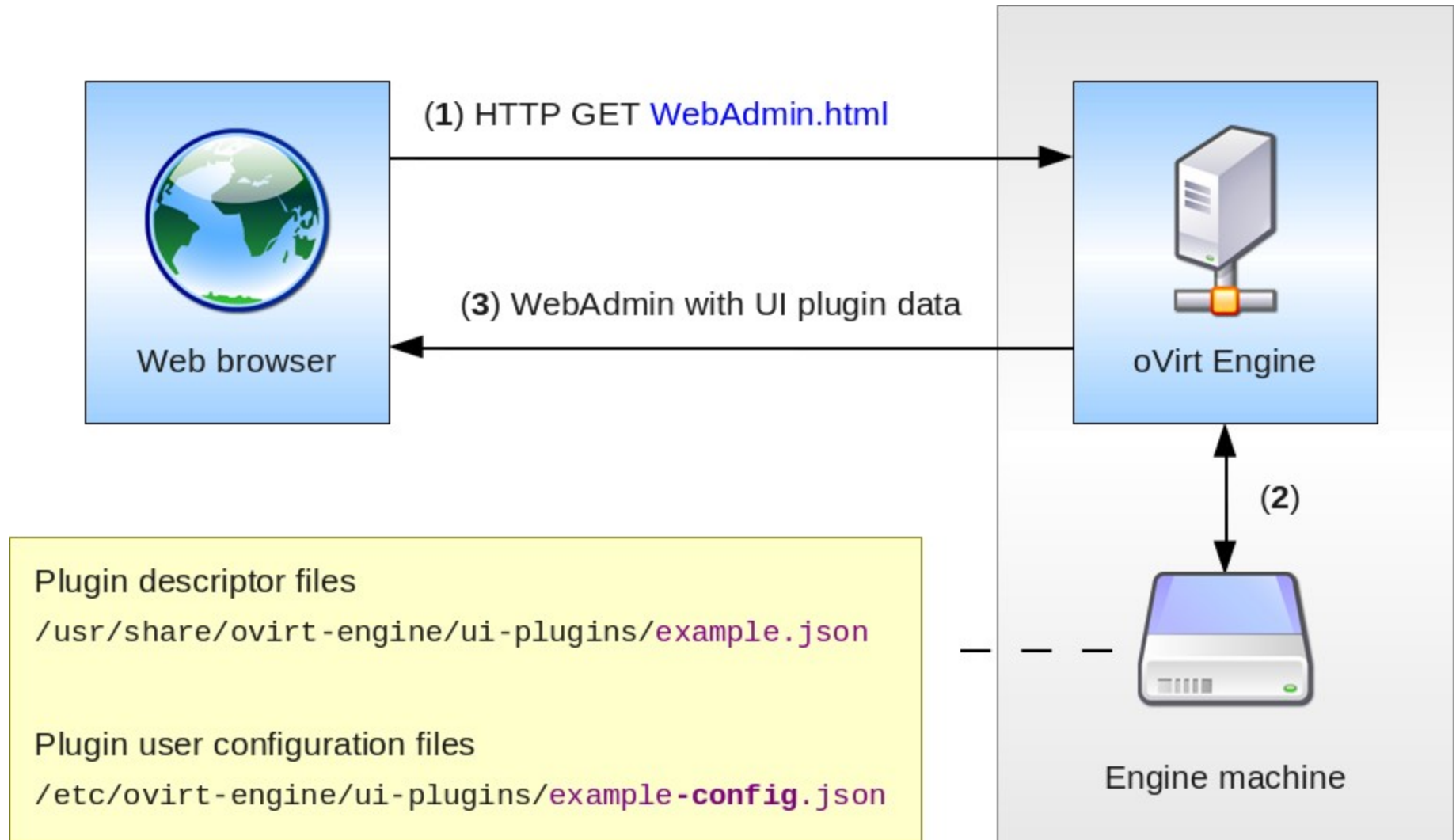
<http://angularjs.org/>

- Dan Wahlin: [AngularJS in 20-ish Minutes](#)
- Dan Wahlin: [AngularJS in 60-ish Minutes \(PDF\)](#)
- <http://docs.angularjs.org/tutorial>

- <http://angular-tips.com/>
 - [Understanding Service Types](#)

oVirt UI plugins

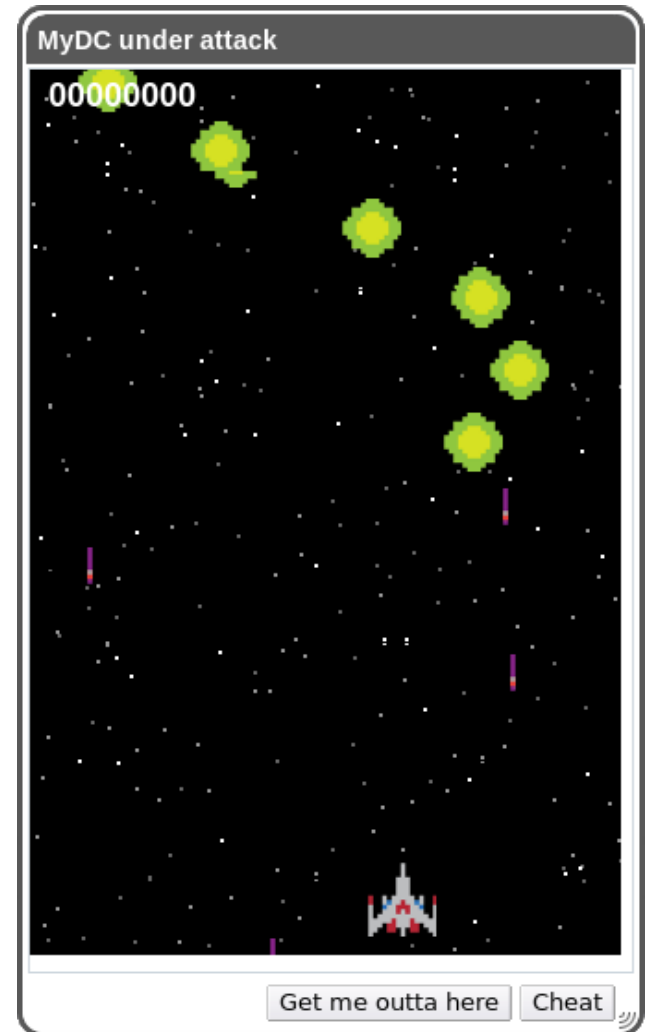
<http://www.ovirt.org/Features/UIPlugins>



oVirt UI plugins

<http://www.ovirt.org/Features/UIPlugins>

- UI plugins wiki
- Crash course: oVirt Space Shooter
- Get help or discuss issues
 - devel mailing list
 - users mailing list



UI plugin with AngularJS

Part 1: plugin descriptor

```
{  
  "name": "AngularTest",  
  "url": "plugin/AngularTest/plugin.html",  
  "resourcePath": "ngtest-resources"  
}
```

`$ENGINE_DATA/ovirt-engine/ui-plugins/ngtest.json`

UI plugin with AngularJS

Part 2: plugin host page

```
<!doctype html>  
  
<html ng-app="plugin.init">  
  
<head>  
  <meta charset="utf-8">  
</head>  
  
<body>  
  <script src="lib/angular.js"></script>  
  <script src="js/plugin.js"></script>  
</body>  
  
</html>
```

`$ENGINE_DATA/ovirt-engine/ui-plugins/ngtest-resources/plugin.html`

UI plugin with AngularJS

Part 2: plugin host page

```
'use strict';  
  
(function (mod) {  
    // A) Add service to access UI plugin API  
    // B) Add service to bootstrap UI plugin  
    // C) Run bootstrap service on page load  
})(  
    angular.module('plugin.init', [])  
));
```

`$ENGINE_DATA/ovirt-engine/ui-plugins/ngtest-resources/js/plugin.js`

UI plugin with AngularJS

Part 2: plugin host page

```
// A) Add service to access UI plugin API
mod.factory('pluginApi', ['$window', function ($window) {
    return $window.parent.pluginApi('AngularTest');
}]);
```

UI plugin with AngularJS

Part 2: plugin host page

```
// B) Add service to bootstrap UI plugin
```

```
mod.factory('bootstrapService', ['$window', 'pluginApi',  
                                function ($window, pluginApi) {  
  
    var pluginEventHandlers = {  
        UiInit: function () {  
            $window.alert('Hello UI plugins!');  
        }  
    };  
  
    return {  
        initPlugin: function () {  
            // Register plugin event handler functions  
            pluginApi.register(pluginEventHandlers);  
  
            // Proceed with UI plugin initialization  
            pluginApi.ready();  
        }  
    };  
  
}]);
```

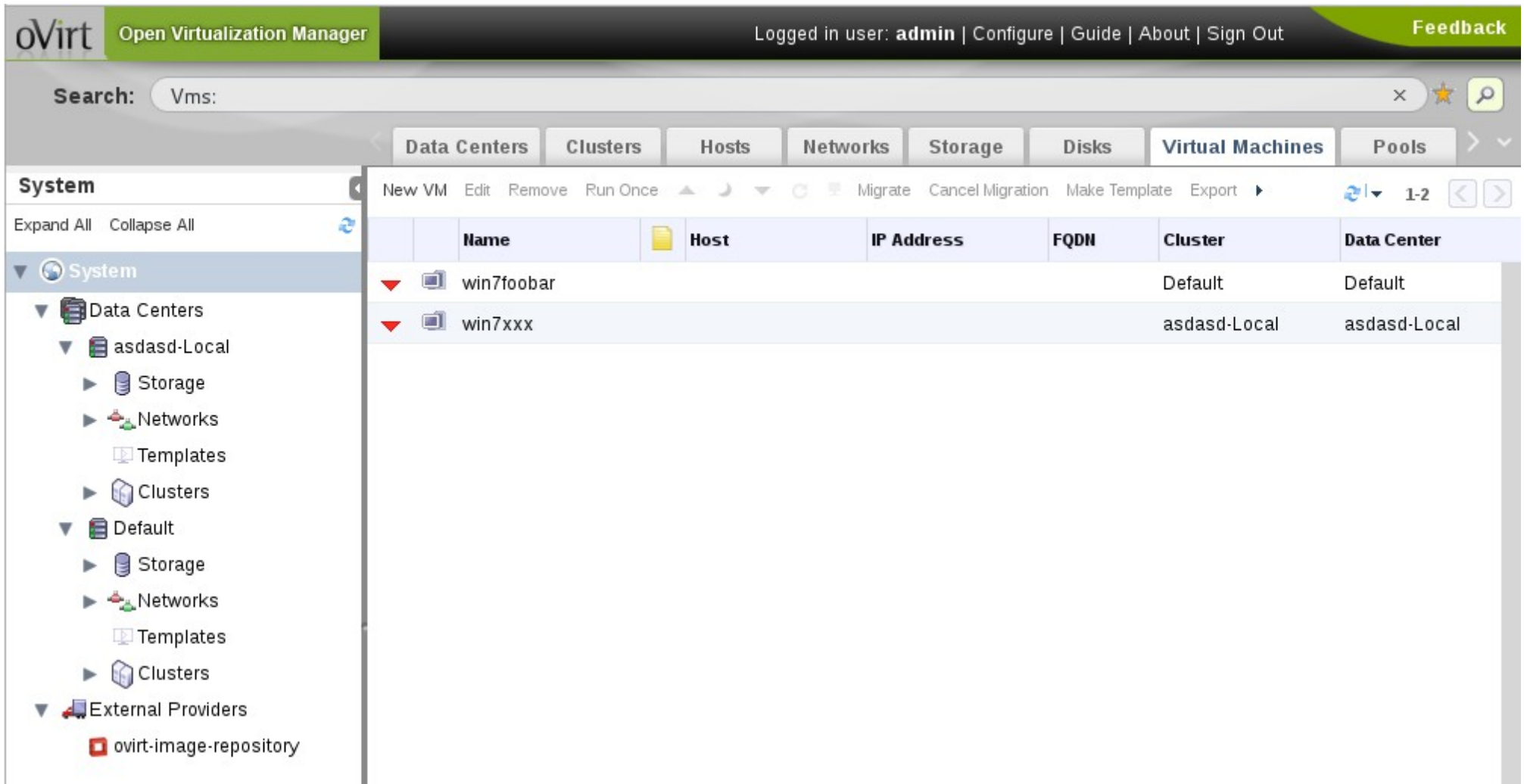
UI plugin with AngularJS

Part 2: plugin host page

```
// C) Run bootstrap service on page load
mod.run(['bootstrapService', function (bootstrapService) {
    bootstrapService.initPlugin();
}]);
```

UI plugin with AngularJS

Part 3: custom main tab



The screenshot displays the oVirt Open Virtualization Manager interface. The top navigation bar includes the oVirt logo, the text "Open Virtualization Manager", and user information: "Logged in user: admin | Configure | Guide | About | Sign Out". A "Feedback" link is also present. Below the navigation bar is a search bar containing "Vms:". The main content area is divided into several tabs: "Data Centers", "Clusters", "Hosts", "Networks", "Storage", "Disks", "Virtual Machines", and "Pools". The "Virtual Machines" tab is currently selected. On the left side, there is a "System" sidebar with a tree view showing the hierarchy of resources, including "Data Centers", "asdasd-Local", "Storage", "Networks", "Templates", "Clusters", "Default", "External Providers", and "ovirt-image-repository". The main table displays a list of virtual machines with the following columns: "Name", "Host", "IP Address", "FQDN", "Cluster", and "Data Center". The table contains two entries: "win7foobar" and "win7xxx".

Name	Host	IP Address	FQDN	Cluster	Data Center
win7foobar				Default	Default
win7xxx				asdasd-Local	asdasd-Local

UI plugin with AngularJS

Part 3: custom main tab

```
// Modify bootstrapService to add custom main tab

var pluginEventHandlers = {
  UiInit: function () {
    pluginApi.addMainTab('Angular Powered Tab',
      'ngtest-tab',
      'plugin/AngularTest/tab.html');
  }
};
```

.../ngtest-resources/js/plugin.js

UI plugin with AngularJS

Part 3: custom main tab

```
<!doctype html>
<html ng-app="plugin.tab">

<head><meta charset="utf-8"></head>

<body ng-controller="tabController">

    Search people: <input type="text" ng-model="searchText" />

    <table>
        <tr>
            <th>Name</th><th>City</th>
        </tr>
        <tr ng-repeat="person in people | filter:searchText | orderBy:'name'">
            <td>{{person.name}}</td>
            <td>{{person.city}}</td>
        </tr>
    </table>

    <script src="lib/angular.js"></script>
    <script src="js/tab.js"></script>

</body>
</html>
```

.../ngtest-resources/tab.html

UI plugin with AngularJS

Part 3: custom main tab

```
'use strict';  
  
(function (mod) {  
    mod.controller('tabController', ['$scope', function ($scope) {  
        $scope.people = [  
            { name: 'John', city: 'Boston' },  
            { name: 'Frank', city: 'San Francisco' },  
            { name: 'James', city: 'London' },  
            { name: 'Bob', city: 'Boston' }  
        ];  
    }]);  
})(  
    angular.module('plugin.tab', [])  
);  
  
.../ngtest-resources/js/tab.js
```


UI plugin with AngularJS

Part 4: Live demo

... hope it works!

UI plugin with AngularJS

Part 5: there is no part 5

- Sky is the limit
- [samples-uiplugins](#) repository

```
$ git clone git://gerrit.ovirt.org/samples-uiplugins
```

- Share your plugins on [users mailing list](#)



Thank you!

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