



angularJS Directives

Getting Started with Directives

The Role of Directives

Creating a Hello World Directive

Directive Categories

Directive Building Blocks

The Role of Directives

What are Directives?

Markers on a DOM element that tell AngularJS's HTML compiler (\$compile) to attach a specified behavior to that DOM element...

```
<div my-directive></div>
```

Directives Teach HTML New Tricks!



What can Directives Do?

Manipulate the DOM

Modify CSS

Iterate through Data

Validate Data

Handle Events

Data Binding

Key AngularJS Directives

Forms

ng-maxlength
ng-minlength
ng-pattern
ng-required
ng-submit

Data Binding

ng-bind
ng-href
ng-init
ng-model
ng-src
ng-style

DOM

ng-disabled
ngcloak
ng-hide
ng-if
ng-repeat
ng-show
ng-switch
ng-view

Behavior

ng-blur
ng-change
ng-checked
ng-click
ng-key*
ng-mouse*

Application

ng-app
ng-controller

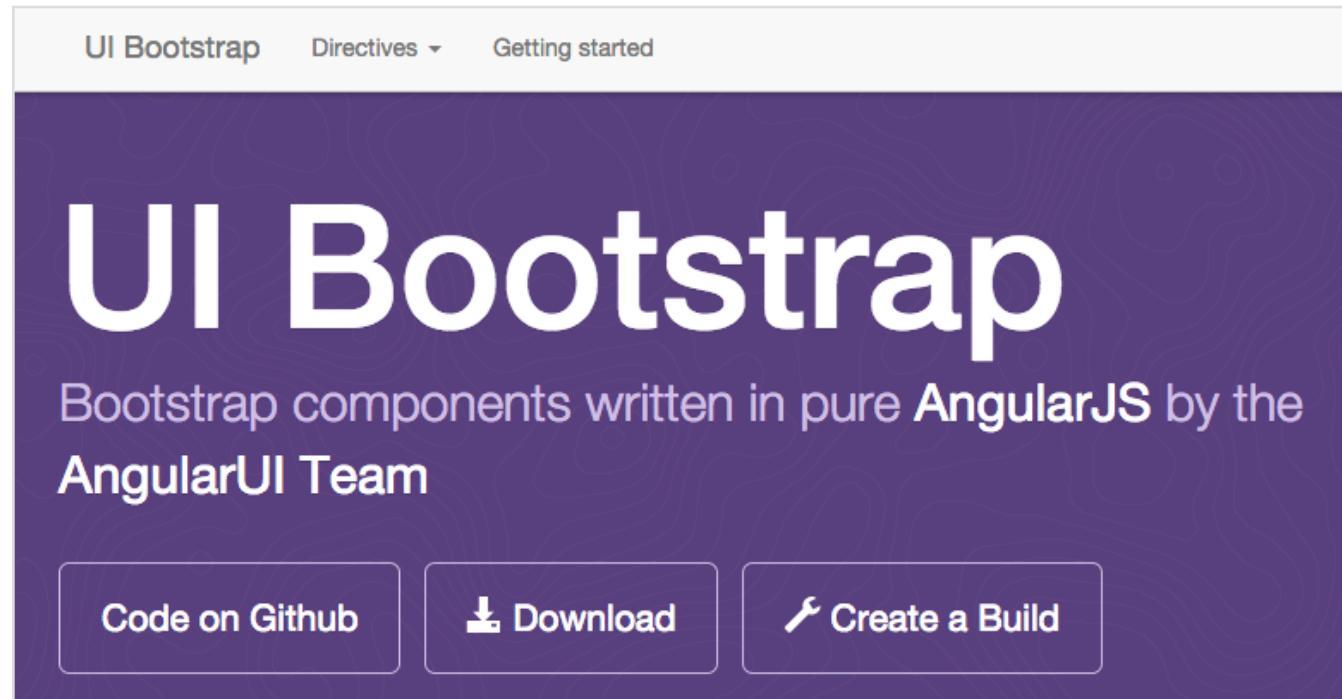
3rd Party Directives

UI Bootstrap Directives ▾ Getting started

UI Bootstrap

Bootstrap components written in pure AngularJS by the AngularUI Team

[Code on Github](#) [Download](#) [Create a Build](#)



AngularStrap Directives

AngularStrap

AngularJS 1.2+ native directives for Bootstrap 3.

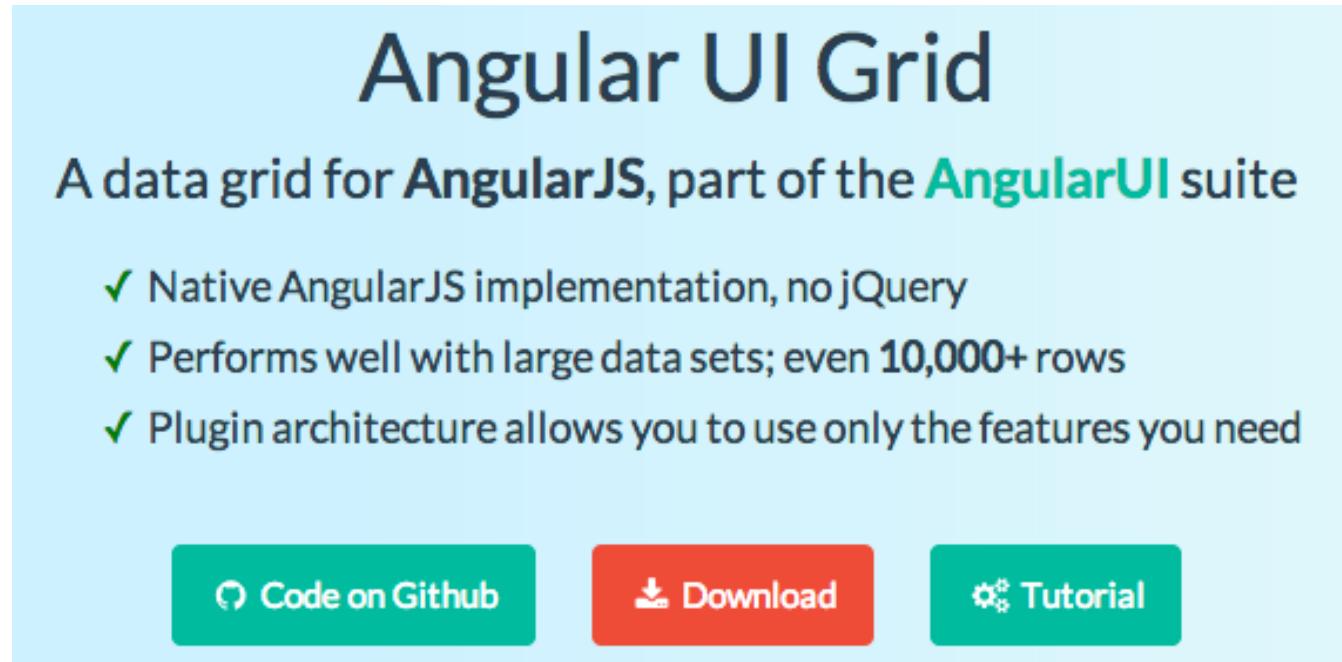


Angular UI Grid

A data grid for AngularJS, part of the [AngularUI](#) suite

- ✓ Native AngularJS implementation, no jQuery
- ✓ Performs well with large data sets; even 10,000+ rows
- ✓ Plugin architecture allows you to use only the features you need

[Code on Github](#) [Download](#) [Tutorial](#)

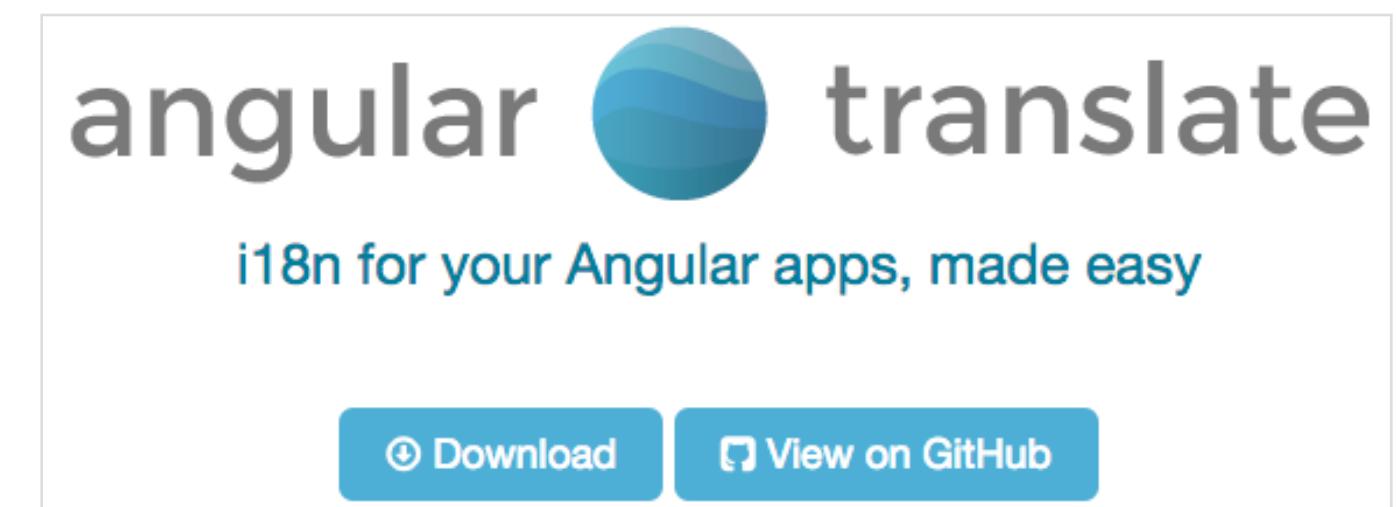


angular translate



i18n for your Angular apps, made easy

[Download](#) [View on GitHub](#)



What if there isn't a directive
that meets your needs?



You have some fun and
write a
custom directive!

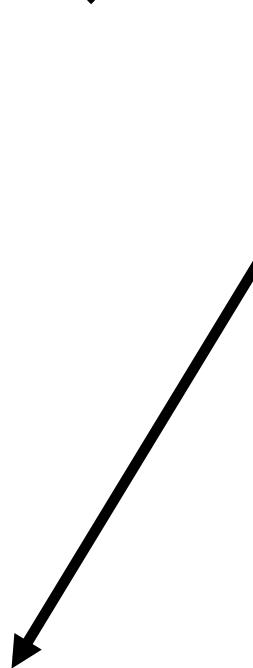


Creating a Hello World Directive

Defining and Using a Directive

```
angular.module('moduleName')  
  .directive('simpleDirective', function () {
```

```
});
```



```
<div simple-directive></div>
```

Hello World Directive

```
angular.module('moduleName')
  .directive('simpleDirective', function () {
    return {
      template: '<div>Hello World</div>'
    }
});
```

Directive Categories

Directive Categories

DOM-Driven Directives

All about DOM
Manipulation

Behavior-Driven Directives

All about handling DOM
Events

Data-Driven Directives

All about data, using
other directives and a
controller

Directive Types

Attribute directives

```
<span my-dir="exp"></span>
```

Element directives

```
<my-dir></my-dir>
```

CSS class directives

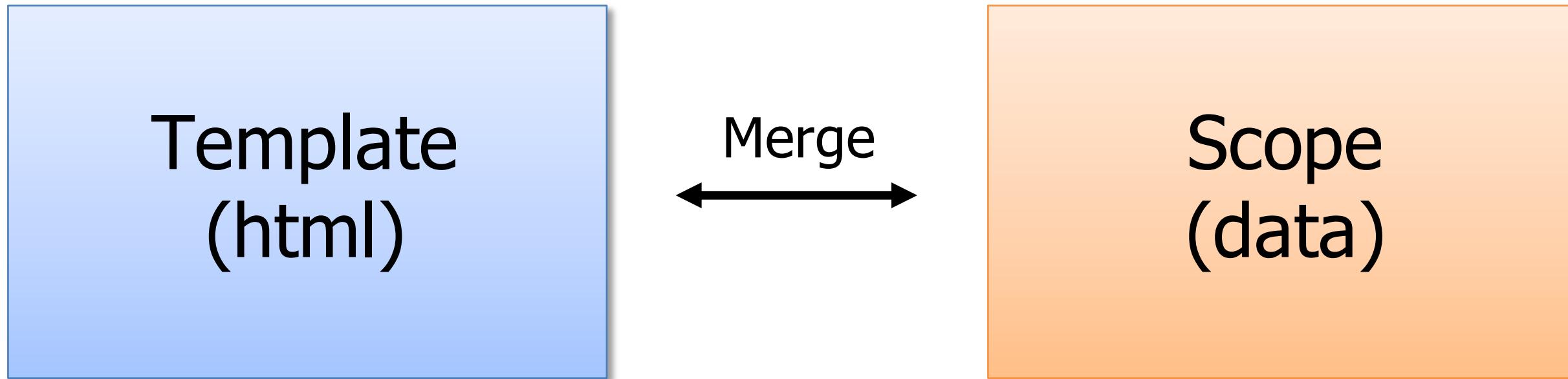
```
<span class="my-dir: exp;"></span>
```

Comment directives

```
<!-- directive: my-dir exp -->
```

Directive Building Blocks

Templates and Scope



Directive Building Blocks

scope

template

Directive Definition Object

\$compile

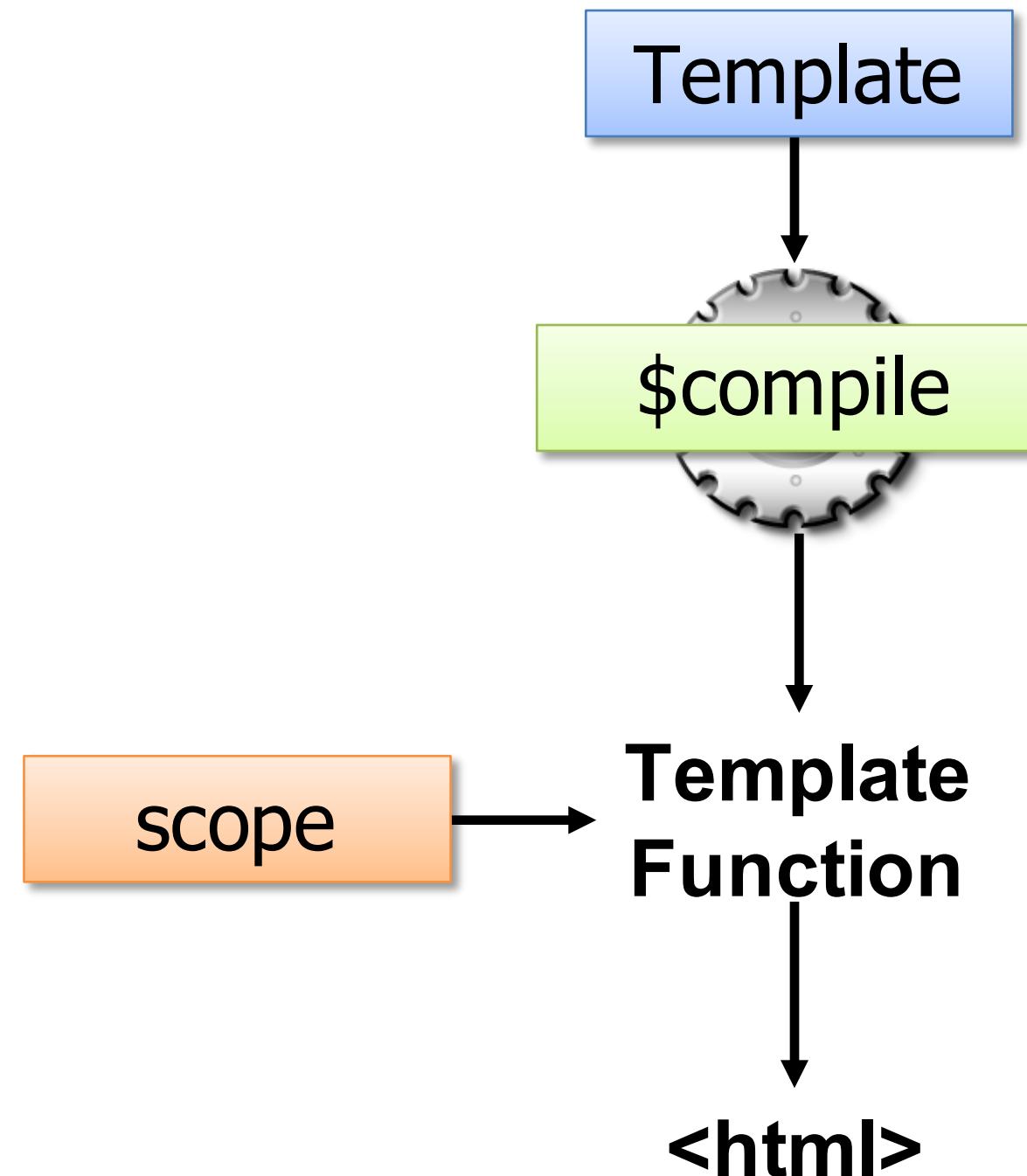
The \$compile provider



“Compiles an HTML string or DOM into a template and produces a template function, which can then be used to link scope and the template together.”

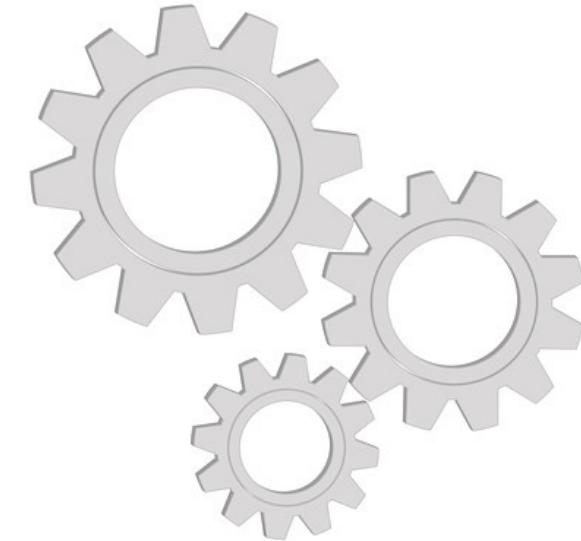
[http://docs.angularjs.org/api/ng/service/\\$compile](http://docs.angularjs.org/api/ng/service/$compile)

The `$compile` Process



\$compile and the Directive Definition Object (DDO)

- \$compile provider relies on a Directive Definition Object (DDO)
- Features of the DDO:
 - Defines the template for the directive
 - Can include DOM manipulation code
 - Can define a controller for the directive
 - Controls the directive's scope
 - Defines how the directive can be used
 - More...



Key DDO Properties

restrict

template

templateUrl

scope

controller

link

Key DDO Properties

```
angular.module('moduleName')
  .directive('myDirective', function () {
    return {
      restrict: 'EA',
      scope: {},
      template: '<div>{{ myVal }}</div>',
      controller: controller,
      link: function (scope, element, attrs) { }
    }
});
```

Summary

Summary

- Directives play a critical role in AngularJS applications
 - Render HTML
 - Manipulate the DOM
 - Handle Events
 - Much more
- Directives can be defined and used in many ways
- The Directive Definition Object (DDO) is the building block of custom directives