

Diving into YUI

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About Me

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- Core contributor of OpenPhoto
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Agenda

- YUI3 Philosophy
- YUI3 Fundamentals
- DOM Methods and Event Handlers
- Advanced Modular Programming

YUI3 Philosophy

- Be a good global citizen
- Modular development
 - YUI is built using well decomposed modules
 - Encourages and accelerates modular development
- Maximize performance

Sandboxed Development



```
<!-- include the YUI seed file-->
<script src="http://yui.yahooapis.com/3.4.1/build/yui/yui-
min.js"></script>

<script>

//YUI() creates a unique sandboxed YUI instance

YUI().use('*', function (Y) {

    // YUI will call this function and pass in the YUI instance
    // (Y) once all modules have finished loading and are ready
    // to use.

    ... your code here ...

});

</script>
```

```
<!-- team A's code -->
<script>
YUI().use('*', function (Y) {
    Y.Util = {
        someTeamSpecificValue: 'nope'
    };
});
</script>
```

... later ...

```
<!-- team B's code -->
<script>
YUI().use('*', function (Y) {
    Y.Util = {
        someTeamSpecificValue: 'chuck testa'
    };
});
</script>
```

Modules

- The n-1 arguments to the use statement are the modules that you want to use
 - only load what you need
 - cdn and comboed
- The nth argument is the callback which is executed when the modules are loaded

Modules

- align-plugin anim anim-base anim-color anim-curve anim-easing anim-node-plugin anim-scroll anim-xy app array-extras array-invoke arraylist arraylist-add arraylist-filter arraysort async-queue attribute attribute-base attribute-complex autocomplete autocomplete-base autocomplete-filters autocomplete-filters-accentfold autocomplete-highlighters autocomplete-highlighters-accentfold autocomplete-list autocomplete-list-keys autocomplete-plugin autocomplete-sources base base-base base-build base-pluginhost cache cache-base cache-offline cache-plugin calendar calendar-base calendarnavigator charts classnamemanager clickable-rail collection console console-filters controller cookie createlink-base dataschema dataschema-array dataschema-base dataschema-json dataschema-text dataschema-xml datasource datasource-arrayschema datasource-cache datasource-function datasource-get datasource-io datasource-jsonschema datasource-local datasource-polling datasource-textschema datasource-xmlschema datatable datatable-base datatable-datasource datatable-scroll datatable-sort datatype datatype-date datatype-date-format datatype-date-math datatype-date-parse datatype-number datatype-number-format datatype-number-parse datatype-xml datatype-xml-format datatype-xml-parse dd dd-constrain dd-ddm dd-ddm-base dd-ddm-drop dd-delegate dd-drag dd-drop dd-drop-plugin dd-gestures dd-plugin dd-proxy dd-scroll dial dom dom-base dom-core dom-deprecated dom-screen dom-style dom-style-ie dump editor editor-base editor-bidi editor-br editor-lists editor-para editor-tab escape event event-base event-base-ie event-custom event-custom-base event-custom-complex event-delegate event-flick event-focus event-gestures event-hover event-key event-mouseenter event-mousewheel event-move event-outside event-resize event-simulate event-synthetic event-touch event-valuechange exec-command features frame get graphics graphics-canvas graphics-canvas-default graphics-svg graphics-svg-default graphics-vml graphics-vml-default highlight highlight-accentfold highlight-base history history-base history-hash history-hash-ie history-html5 imageloader intl intl-base io io-base io-form io-queue io-upload-iframe io-xdr json json-parse json-stringify jsonp jsonp-url loader loader-base loader-rollup loader-yui3 model model-list node node-base node-core node-deprecated node-event-delegate node-event-html5 node-event-simulate node-flick node-focusmanager node-load node-menunav node-pluginhost node-screen node-style oop overlay panel plugin pluginhost pluginhost-base pluginhost-config profiler querystring querystring-parse querystring-parse-simple querystring-stringify querystring-stringify-simple queue-promote range-slider recordset recordset-base recordset-filter recordset-indexer recordset-sort resize resize-base resize-constrain resize-plugin resize-proxy rls scrollbar scrollbar-base scrollbar-base-ie scrollbar-list scrollbar-paginator scrollbar-scrollbars selection selector selector-css2 selector-css3 selector-native shim-plugin slider slider-base slider-value-range sortable sortable-scroll stylesheet substitute swf swfdetect tabview tabview-base tabview-plugin test text text-accentfold text-data-accentfold text-data-wordbreak text-wordbreak transition transition-timer uploader view widget widget-anim widget-autohide widget-base widget-base-ie widget-buttons widget-child widget-htmlparser widget-locale widget-modality widget-parent widget-position widget-position-align widget-position-constrain widget-skin widget-stack widget-stdmod widget-uievents yql yui yui-base yui-later yui-log yui-rls yui-throttle

Modules

- `anim`
- `anim-base`
- `anim-color`
- `anim-curve`
- `anim-easing`
- `anim-node-plugin`
- `anim-scroll`
- `anim-xy`

DOM Methods and Events

DOM Methods

- Retrieval
 - `Y.one( selector )`
 - `Y.all( selector )`
- Modification
 - `node.set( property, value )`
 - `node.setStyle( style, value )`
- Accessing Properties
 - `node.get( property )`
 - `node.getStyle( property )`

DOM Methods

- Creation
 - `var node = Y.Node.create( markup )`
 - `node.setContent( markup )`
 - `node.append( markup )`
- Traversal
 - `node.ancestor( selector )`
 - `node.next( selector )`
 - `node.previous( selector )`
 - `node.one( selector )`

Events

- Attach
 - `var h = node.on( type, fn, context );`
- Detach
 - `node.detach( type, fn, context );`
 - `h.detach();`
- Delegation
 - `node.delegate( type, fn, selector, context );`

Y.Node and Y.NodeList



Event Facade



Creating Modules

- “The YUI 3 ecosystem is built to work with modules. People start by trying to get a public API to use within their code, then maybe they find simpleYUI or expose the YUI instance globally. Inevitably, though, they wind up writing code in the use() callback, but that's not reusable code, to just like in normal dev, reusable stuff goes in separate files, but YUI uses modules. So you put your code in a module. Now you can have that async” - Luke Smith (Last Night)

Creating Modules

- Really easy to add your own modules
- Can leverage async loader to load modules on demand
- Creates reusable, maintainable, scalable code

```
<script>
```

```
//notice that we use YUI.add and not YUI().add
```

```
YUI.add('myModule', function(Y) {
```

```
    Y.myModule = {
```

```
        doSomething: function() {},
```

```
        ... your module code here ...
```

```
    };
```

```
}, '1.0.0', {  
    requires: [ 'anim' ]  
});
```

```
</script>
```

```
<script>
```

```
//if the script for myModule is on the page, we can now use it  
//or if the loader has been configured to fetch the script
```

```
YUI().use('myModule', 'anim', function(Y) {
```

```
    //we can now use functionality that we  
    //created in myModule  
    Y.myModule.doSomething();
```

```
});
```

```
</script>
```

Module Communication

- Want modules to be loosely coupled
 - should be able to remove a module without any errors
- Remove hard references and use a broadcasting communication mechanism
 - YUI has that!

```
<script>
```

```
YUI.add( 'myModule', function(Y) {
```

```
    var myModule = {
```

```
        init: function() {
```

```
            //module initialization, store DOM  
            //references, init variables
```

```
        }
```

```
    };
```

```
    //subscribe to custom events, we want to initialize only  
    //when we are told to (i.e. onload)
```

```
    Y.on( 'module:init', myModule.init, myModule);
```

```
}, '1.0.0', {  
    requires: [ 'anim' ]  
});
```

```
</script>
```

```
<script>
```

```
YUI().use('myModule', 'event', function(Y) {  
    Y.on('domready', function() {  
        //on domready, initialize all of the modules  
        Y.fire('module:init');  
    });  
});  
</script>
```

References

- <http://developer.yahoo.com/yui/3>
- Images courtesy: google image search :P

Contact

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Interested in Indochino

- Indochino is looking for solid devs
- Contact hr@indochino.com for info!