

Clickframes XML Cheat Sheet

<http://clickframes.org>

<appspec> – *the root tag of a Clickframes XML document*

<code>id="..."</code> ✕	Concise name of this application
<code>defaultPage="..."</code>	ID of page to display by default
<code>loginPage="..."</code>	ID of page with login form
<code><title></code> ✕	Title of your application
<code><description></code> ✕	Brief description of your application
<code><pages></code> ✕	The application's <code><page></code> elements
<code><contents></code>	Global <code><content></code> elements
<code><emails></code>	<code><email></code> message definitions
<code><entities></code>	Data <code><entity></code> definitions
<code><linkSets></code>	Global <code><linkSet></code> navigation elements
<code><outcomes></code>	Global <code><outcome></code> definitions

<page> – *defines a page within your application*

<code>id="..."</code> ✕	Unique identifier of this page
<code>login-required="..."</code>	True if page requires login
<code><title></code> ✕	Title of your page
<code><description></code> ✕	Brief description of your page
<code><actions></code>	Actions user can perform on this page
<code><contents></code>	Text blocks to be displayed on page
<code><contentRefs></code>	Globally-defined content to display on page
<code><outputLists></code>	Lists of data elements to display on page
<code><outputs></code>	Individual data elements to display on page
<code><facts></code>	Free-form software requirements
<code><forms></code>	Logical groups of inputs and actions
<code><links></code>	Links to other internal pages or external URLs
<code><linkSetRefs></code>	Navigation sets to display on page
<code><params></code>	URL parameters

Action Types

<code>create</code>	Action creates new data item
<code>update</code>	Action updates existing data
<code>createOrUpdate</code>	Action creates or updates data
<code>delete</code>	Action deletes a data item
<code>login</code>	Action logs user in
<code>logout</code>	Action logs user out

Input Types

<code>text</code>	A text box
<code>textarea</code>	Text area for long text
<code>password</code>	Password field
<code>checkbox</code>	Boolean check box
<code>radio</code>	Radio buttons
<code>dropdown</code>	Drop-down single selector
<code>multiple</code>	Multiple selector
<code>upload</code>	Upload field
<code>date</code>	Calendar date selector

Entity Property Data Types

<code>boolean</code>	True/false values
<code>date</code>	Date/time values
<code>file</code>	Binary data
<code>int</code>	Whole numeric values
<code>text</code>	Textual or string values
<code>entity</code>	Property refers to other entity

Common Maven Commands

```
mvn clickframes:generate
    Generate artifacts from appspec

mvn glassfish:run
    Run generated code in embedded container
```

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<param> – defines a URL parameter

`id="..."` Page-unique ID of this parameter
`type="..."` ⌘ Data type of value, e.g. text
`required="..."` If true, parameter is required
`<title>` ⌘ Title of parameter, e.g. User ID
`<description>` Brief description of parameter
`<entityPropertyRef>` Map parameter to an entity property

<fact> – a free-form software requirement

`id="..."` Unique identifier of this fact

<output> – display data from an entity

`id="..."` Unique identifier of this output
`entity="..."` Unique identifier of entity to display
`<title>` ⌘ Title of output
`<description>` Optional description of link
`<facts>` Additional requirements

<form> – group inputs and actions in a form

`id="..."` ⌘ Unique identifier of this form
`<title>` Title of form
`<inputs>` Input fields to include in form
`<actions>` ⌘ Defines form submission behaviors

<input> – create a form field

`type="..."` ⌘ Type of user input, e.g. textarea
`id="..."` Form-unique identifier of this field
`<title>` ⌘ Title/label of input field
`<entityPropertyRef>` Map field to an entity property
`<description>` Brief description of input field
`<validations>` Define validation rules for field
`<options>` Define options for selection input
`<default>` Specify default value/option
`<positiveExample>` A valid sample entry, for testing
`<facts>` Additional requirements for this field

<validation> – declare an input validation rule

`id="..."` Optional identifier of this rule
`type="..."` ⌘ Type of validation, e.g. required
`description="..."` Error message to display on failure
`<negativeExample>` Test value that would cause failure

<option> – a choice within a selection input

`value="..."` ⌘ The encoded value of the option

<default> – input field's default value or option

`value="..."` ⌘ Text, or reference to option value

<entityPropertyRef> – map to entity property

`entity="..."` ⌘ Identifier of entity
`property="..."` ⌘ Identifier of property to populate

<action> – action user can perform

`id="..."` Identifier of action
`type="..."` Type of action, e.g. delete
`<title>` ⌘ Title of action, i.e. button label
`<outcomes>` ⌘ One or more possible outcomes

<outcome> – consequence of an action

`id="..."` ⌘ Identifier of outcome
`negative="..."` If true, symbolizes negative result
`<title>` ⌘ Title of outcome
`<description>` Brief description of outcome
`<href>` External destination URL
`<pageRef>` Internal destination page ID
`<emailRef>` * Specifies <email> to send
`<message>` Message to display at destination
`<facts>` Additional requirements

<link> – a link to another page

`<title>` ⌘ Title of link to display
`<description>` Optional description of link
`<href>` External destination URL
`<pageRef>` Internal destination page ID
`<facts>` Additional requirements

<output> – display a data item on page

`id="..."` ⌘ Identifier of output
`entity="..."` ⌘ Identifier of entity to display
`<title>` ⌘ Title of output
`<description>` Brief description of output
`<facts>` Additional requirements

<outputList> – list of data items to display

`id="..."` ⌘ Identifier of output list
`entityRef="..."` ⌘ Identifier of entities to display
`<title>` ⌘ Title of output list
`<description>` Brief description of output list
`<links>` Links to display with each item
`<actions>` Actions possible on each item
`<facts>` Additional requirements

<linkSetRef> – reference to a linkSet

`id="..."` ⌘ Identifier of linkSet

<content> – text to be displayed on page

`id="..."` Unique identifier of content element
`verbatim="..."` True if to be displayed unmodified

<contentRef> – reference to global content

`id="..."` ⌘ Reference to global content ID

<linkSet> – set of links, navigation

`id="..."` ⌘ Unique identifier of this linkSet
`global="..."` If true, displayed on all pages
`<title>` ⌘ Title of navigation
`<facts>` Additional requirements
`<links>` ⌘ Links to include in navigation

<entity> – data objects for input or display

`id="..."` ⌘ Unique identifier of this entity
`<title>` ⌘ Title of entity
`<description>` Brief description of entity
`<properties>` Data attribute definitions

<property> – definition of an entity attribute

`id="..."` ⌘ Unique identifier of this property
`type="..."` Data type, e.g. string
`multiple="..."` If true, represented by list
`persistent="..."` If false, transient computed value
`primaryKey="..."` If true, used to uniquely identify
`<entityRef>` Creates foreign key relationship
`<title>` ⌘ Title of property
`<description>` Brief description of property
`<validations>` Declare a validation rule
`<options>` Define options for valid input
`<default>` Specify default value/option
`<positiveExample>` A valid sample value, for testing

<email> – e-mail message definition

`id="..."` ⌘ Unique identifier of this e-mail
`<title>` ⌘ Internal title of e-mail
`<description>` ⌘ Brief description of e-mail
`<emailSubject>` ⌘ Subject of e-mail
`<emailText>` Text content of e-mail
`<facts>` Additional requirements
`<links>` Links to include in e-mail
`<linkSetRefs>` Navigations to include in e-mail
`<outputs>` Data elements to display in e-mail
`<params>` Params required to populate e-mail

* indicates multiple instances allowed ⌘ indicates required attribute or element