

WebApp Custom Controls

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Why a custom control?

- In need of functionality unavailable in the standard toolkit
- Examples:
 - Specialized List
 - Charts
 - HTML Editor
 - Spinform
 - Right click menu
 - WebShop View
 - Dynamic form
 - ...

Example: Quantaris List

- Multiline rows
- Expandable panel
- Details button
- Reusable

- cQList
 - Custom list class
- cQListColumn
 - Column class that allows linebreaks (pbNewLine)
- cQListPanel
 - Panel that can be placed inside the list show row details
 - Can contain other controls (based on cWebBaseContainer)

U bent ingelogd als **Scharif** 

Dashboard

Dossiers

Personalia

Instellingen

ACTIVE DOSSIERS

INACTIEVE DOSSIERS

▼ Dossier 1999.229842.01 >

▼ Dossier 1999.230103.01 >

▲ Dossier 2002.236641.01 >

Dossier informatie

DossierID: 2002.236641.01	Aangelegd op: 02/14/2002
Naam dossier: 	Afhandelen voor: 02/26/2002
Soort dossier: Losse hypotheek	

▼ Dossier 2002.236712.01 >

▼ Dossier 2003.239866.01 >

cQListColumn

cQListColumn

cQListPanel

cQList

Dashboard

Dossiers

Personalia

Instellingen

< DOSSIER 1999.230103.01

Dossier informatie

DossierID: 2008.001060.01	Vestiging: Hoofdvestiging
Naam dossier: 	Aangelegd op: 09/01/2008
Soort dossier: C. levering o.z. + hyp. (zonder k.o.)	Afhandelen voor:
Verantwoordelijke: 	Afgehandeld op:

Documenten >

Berichten >

Akten >

Partijen >

Objecten >

cQListColumn

cQList

Example: Product catalog

- Created by Tom Murphy
- Available on the open source forum
- ctaWebCatalogue
 - Manual implemented control
 - Displays list of articles by generating HTML
 - Sends events (OnAddItem & OnImageClick) to the server
- <http://support.dataaccess.com/Forums/showthread.php?53233-Web-Catalogue-and-Image-Gallery>

File Views Reports Themes

⏮ ⏪ = ⏩ ⏭ 🔍 Clear/Add Clear all Save Delete

Product Catalogue

 More Ace Stuff \$15 1 Add	 Ace marks the spot \$25 1 Add	 The Bears of North America \$32 1 Add
 Famous Bridges I've Known - Photos \$195 1 Add	 Understanding Case Technology \$39 1 Add	 Cities I've Enjoyed - Photo Essays \$49 1 Add
		

ctaWebCatalogue

What is a custom control?

- JavaScript Code
 - Implementation of the wanted feature
 - Implements framework API's
 - Usually renders something on the screen
 - A pseudo class
- DataFlex Code
 - Server-side presentation
 - Provides API's for the application to work with
 - A class



The JavaScript class

- Every DataFlex class has a corresponding JavaScript class that
 - Implements the Web Properties
 - Implements Client Actions called by the server-side class
 - Renders itself by generating HTML
 - Handles user interface events (DOM Events)
 - Sends Server Actions to the server
 - Triggers events

WebApp Framework Principles

- On initialization object definitions are sent to the client
 - Object name
 - JavaScript class name
 - Web Property values
- Controls can initiate server calls
 - Call a specific method of a specific object on the server
 - Pass parameters
 - Framework assembles & sends AJAX Call
- Property changes & client actions come back
 - Property changes will execute setter methods on the controls
 - Client actions are JavaScript functions that will be called on objects

Wrapping existing controls

- Found a JavaScript Library providing the needed functionality
- Advantages
 - Part of the work has already been done
- Considerations
 - There is no standardized control API in JavaScript
 - Usually depend on other libraries
 - jQuery
 - Ext JS
 - Prototype



Different JavaScript Worlds

- jQuery
 - Separates HTML Structure from code
 - Custom, flexible, modern coding style without classes
 - Low learning curve
 - Controls vary
- Ext JS
 - Controls generate HTML
 - Heavy object oriented paradigm with pseudo classes
 - Steep learning curve
 - Controls are pretty consistent but aren't always meant to work alone
- http://en.wikipedia.org/wiki/Comparison_of_JavaScript_frameworks

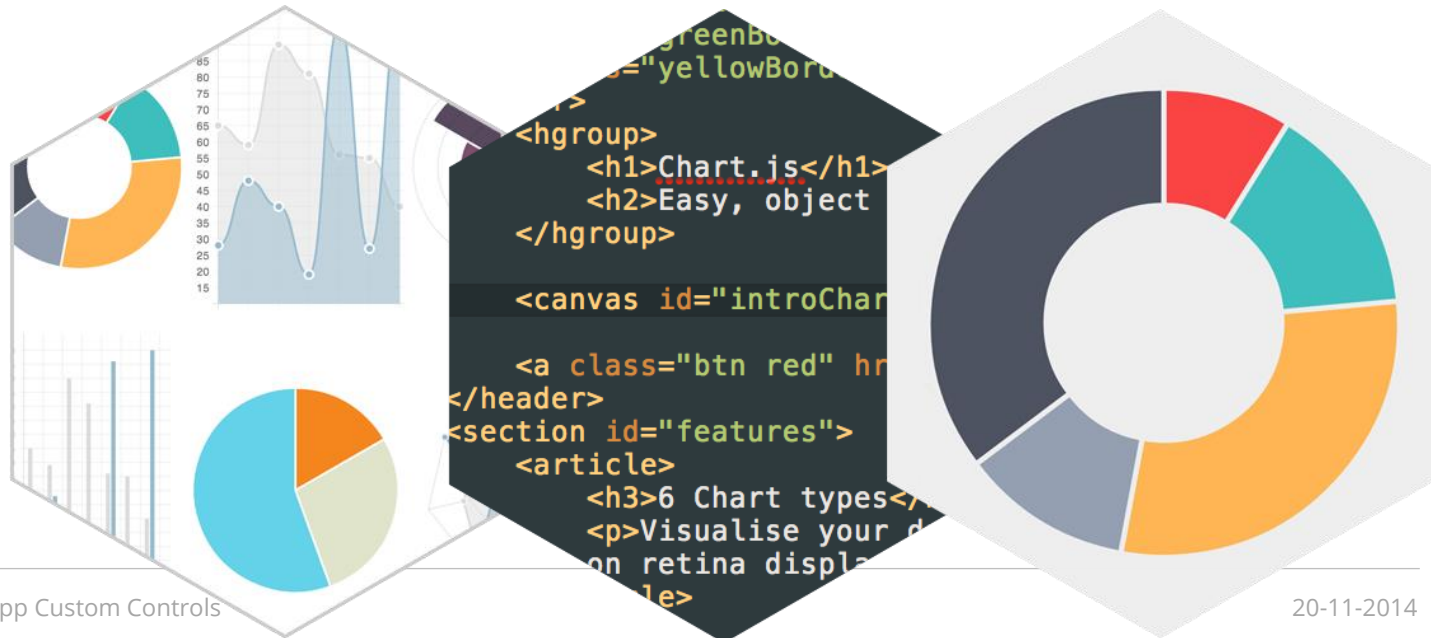


Knowledge required

- JavaScript
- DOM Manipulation / HTML
- CSS
- AJAX
- WebApp Framework structure

ChartJS Demo

- Top hit on google for "javascript charts"
- www.chartjs.org



A silver MacBook Air is open on a wooden desk. To its left is a glass of water. In the foreground, a smartphone lies on a piece of paper. The background is a warm, out-of-focus indoor setting.

Thank you for your time

Have a nice day!