



AWESOME ANGULAR ON DNN AND 2SXC



You can get an awesome, best-practice
Angular-on-DNN dev-setup in minutes!

Goals of this session

What this session is about

What is...

- SPA
- Angular & alternatives

Why integrate in DNN

- Eye-Candy and great UX
- Business applications
- Custom data management UIs

Core Challenges

- Integrate into a DNN-Page
- Fast / efficient development
- Runtime environment during dev
- Show to customer without breaking live
- DNN Headers for API calls
- Access real APIs despite CORS

What would be awesome?



- Fast & Efficient
 - Code locally
 - Hot-Reload development
- Realistic
 - Dev code running in the real DNN site
 - Using data from the live environment
- Multi-Edition
 - Super-user sees all editions incl dev/local
 - Customer sees live/staging





Live Demo: Template SPA as End-User



Live Demo: Template SPA as Super-User



Live Demo: Hot Reload Development in DNN

Who is
talking?



AWESOME
ANGULAR
ON DNN
AND 2SXC

Daniel Mettler aka iJungleboy

- Born '78 Switzerland
 - Grew up in Indonesia
 - Speak EN, DE, IN
- Started Dev w/12
 - First AJAX in '98
- Founded 2sic in '99
 - DNN since '03
 - SharePoint since '05
- 2sxc since 2012
- DNN MVP since ca. 2015



gründete 1999 die Firma zsic
der "Guru"

Web-Leiter und
Prozess-Spezialist
der "Prozessor"

die "Shopping-Queen"
e-Shops
die "Schöpfer"

Projektleiter und
Fachchinesisch-
Übersetzer

die "Diplomaten"



IT-Hosting-Team
die "Betriebskommission"

Grafiker

der "Creators"

SharePoint

der
"Kundenflüsterer"

die "Nerds"
Software-App-Entwickler

Online Marketing,
Website-Inhalte

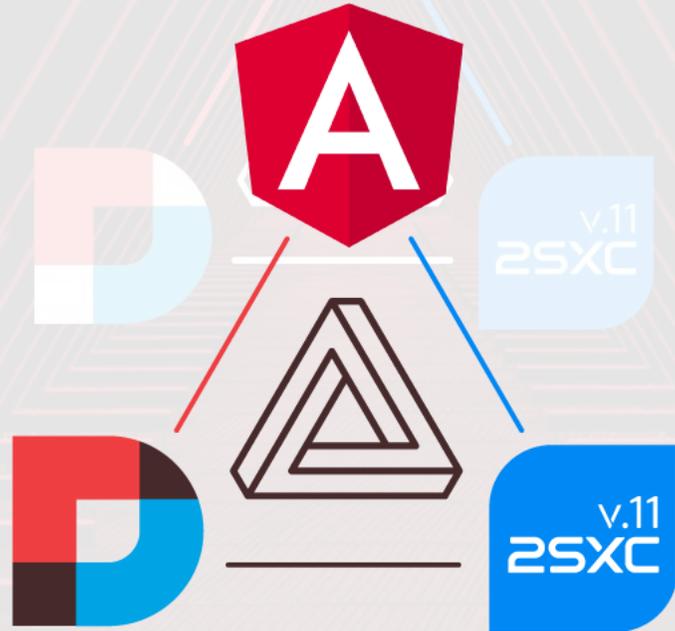
Building Blocks



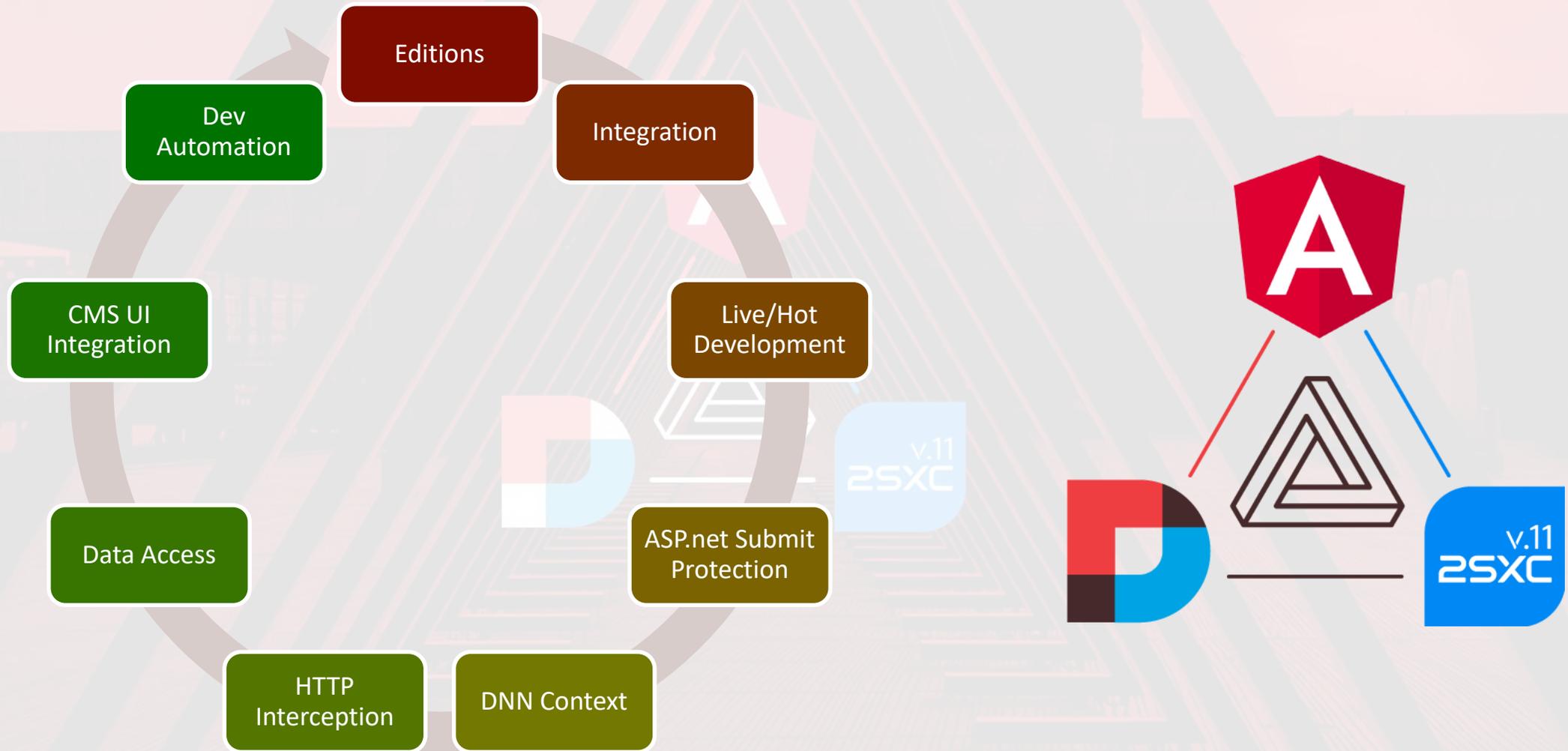
NPM
dnn-sxc-
angular

**Razor / C#
Integration**

**2sxc
Template
App**



Features of dnn-sxc-angular



Integrate
in DNN



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Let's Code: CSHHTML integration

(part of the template App)

Things the Integration CSHTML does



What it does

1. Handles multiple editions (live, staging, local)
2. Edition-Selection for advanced users
3. Auto-load the generated production parts (live/staging)
4. Auto-load the ng-serve local parts enabling hot-reload

Allows

- Add-to-Page for production
- Ensures page context is ready for use in Angular (module, rvt, ...)
- Identical integration for development
- Different editions for each target group
- Hot-Reloading during development

→ Fully configurable, great defaults

Integrate
in Angular



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Let's Code: Angular Integration



What DnnAppComponent does

- Picks up the page/module context
- Picks up the RequestVerificationToken
- Initializes the http-interceptor with headers
- Protection from asp.net submit
 - hitting enter in your SPA won't reload the page
- Protection against using incorrectly (singletons, etc.)



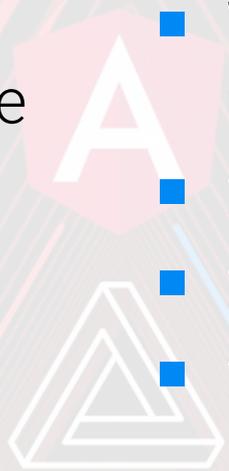
What the invisible Http Interceptor does

Functions

- Automatically add headers to all http requests going to the own site
 - ModuleId
 - TabId
 - RequestVerificationToken
 - etc.
- Correct short-api urls for 2sxc APIs
- Handle API editions correctly

Allows Easy Access to

- Web-API endpoints in DNN – just using normal HttpClient in Angular
- 2sxc Content Data
- 2sxc App Queries
- 2sxc App WebApis



Web APIs and Data



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Let's Code: Data Access

Data and Api



Features

- Quick Fire Commands
→ these get an observable with the desired data
 - `data.content$<T> (...)`
 - `data.query$<T> (...)`
 - `data.api$<T> (...)`
- Get objects for re-use
 - `data.content (typeName)`
 - `data.query<T> (queryName)`
- API Calls
 - `api.get<T> (...)`
 - `api.post<T> (...)`

Enables

- Quickly get any kind of data
- Easily call WebApis
- Leverage Visual Query
- Easily access external data
 - DB/SQL
 - CSV
 - SharePoint lists / documents
 - Custom DataSources make anything possible
- Custom WebAPIs
 - Multi-Editions – awesome for dev/test
 - Live development without restarting DNN

Content Management Integration



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Let's Code: CMS Toolbars

Default and custom configurations

CMS Toolbars with ContentManagerModule



What's inside

- Simple attribute sxc-toolbar
- Simple tag <sxc-toolbar>
- All features of the standard toolbar
- Optionally handle refresh yourself

Enables Zero-Effort...

- Rich Web-Content Angular Apps with content editing
 - Galleries & Swipers
- Business Apps with simple data



Dev
Automation



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- Local operations
- Deploy changes in API code
- Deploy to staging or live



Finalizing



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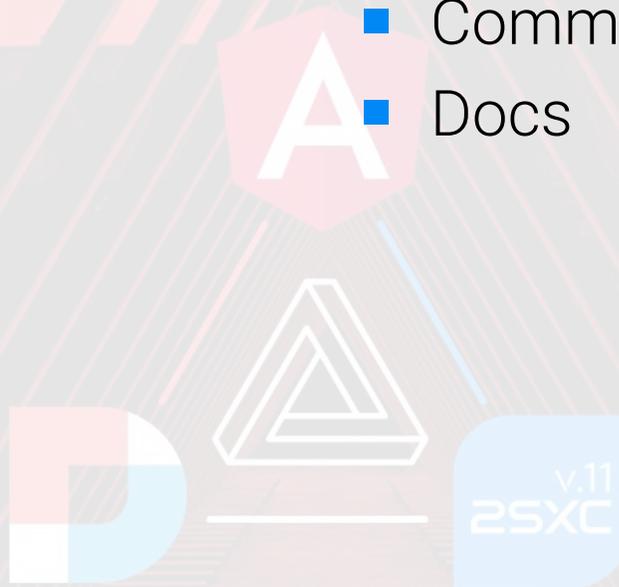
Next on the Agenda



- Questions
- Getting Started
- Links

What's next

- Community feedback & Kaizen
- Docs





Getting Started

- Discover the Template App
- Create your own by...
 - Use the template app and remove the examples module
 - Start afresh / extend existing
 - Create your razor to load the app (inspired by the template)
 - Add @2sic.com/dnn-sxc-angular
 - Setup the app.module
 - Change the `AppComponent` to extends `DnnAppComponent`



Links

- NPM (from here you'll also get to Github)
 - <https://www.npmjs.com/package/@2sic.com/2sxc-typings>
 - <https://www.npmjs.com/package/@2sic.com/dnn-sxc-angular>
- 2sxc
 - <https://2sxc.org/>
 - <https://2sxc.org/dnn-tutorials/>
 - <https://github.com/2sic/app-template-angular>