

AXAMIT

Software solutions



NIKITA MITROSHIN



- ✔ Senior Java Developer
- ✔ Mentor at Axamit Center of Excellence
- ✔ AEM Community Speaker

Certification: **AEM 5.6 Component Developer**

- ✔ AEM Experience: 3+ years
- ✔ Education: BSUIR



CERTIFIED EXPERT

How to become an experience-driven manufacturer

Project – online catalog of one of the biggest manufacturers of microelectronics.

Quick facts:

- 80k+ products
- Each product is a web page with product related content
- Development has been started on Oct 2014.
- CQ 5.6 -> AEM 6.0 -> AEM 6.1
- 32 team members
- 3 site locales

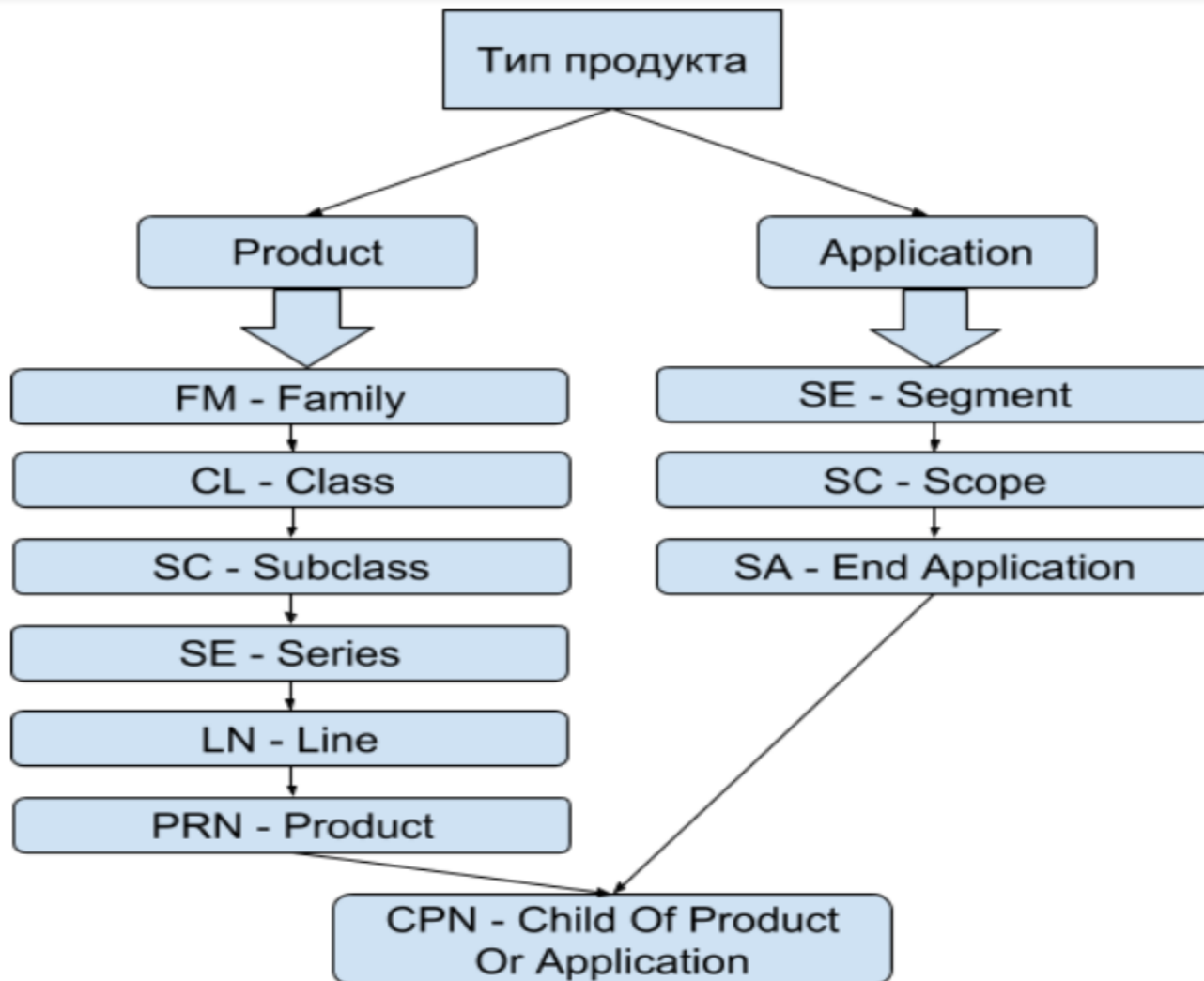
Integrations with:

- Adobe Campaign
- Adobe Analytics
- ClayTablet – translation provider
- eCommerce (SAP Hybris)
- Amazon S3
- Customer's 3rd party systems

We will focus on Adobe products

Catalog Structure

- ▀ Products data is managed in specific customer 3rd party system
- ▀ Products in the catalog should be in specified tree-like hierarchy
- ▀ Products are divided into several types
- ▀ Product data is updated daily










How this hierarchy should look like on the website

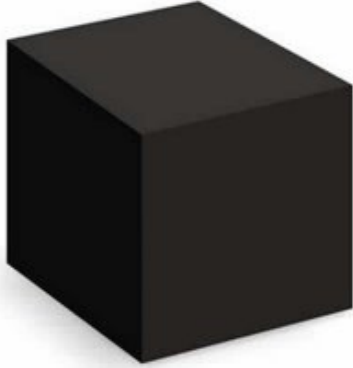
Каталог

Product

Application

 Электроника	 Компьютеры и сети	 Бытовая техника	 Стройка и ремонт
Крупногабаритная техника FM			
Встраиваемая техника			
Уборка, уход за одеждой, пошив			
Климатическая техника			
<ul style="list-style-type: none">Приготовление пищи			
Приготовление кофе и чая			
<ul style="list-style-type: none">Подготовка и обработка продуктов			
Уход за волосами и телом			
Техника для здоровья			
<ul style="list-style-type: none">Сопутствующие товары и аксессуары			
		 CL	Холодильники 4,573 товара от 200,82 р.
			Сушильные машины 122 товара от 777,30 р.
			Посудомоечные машины 1,762 товара от 351,51 р.

How to connect customer system with AEM?



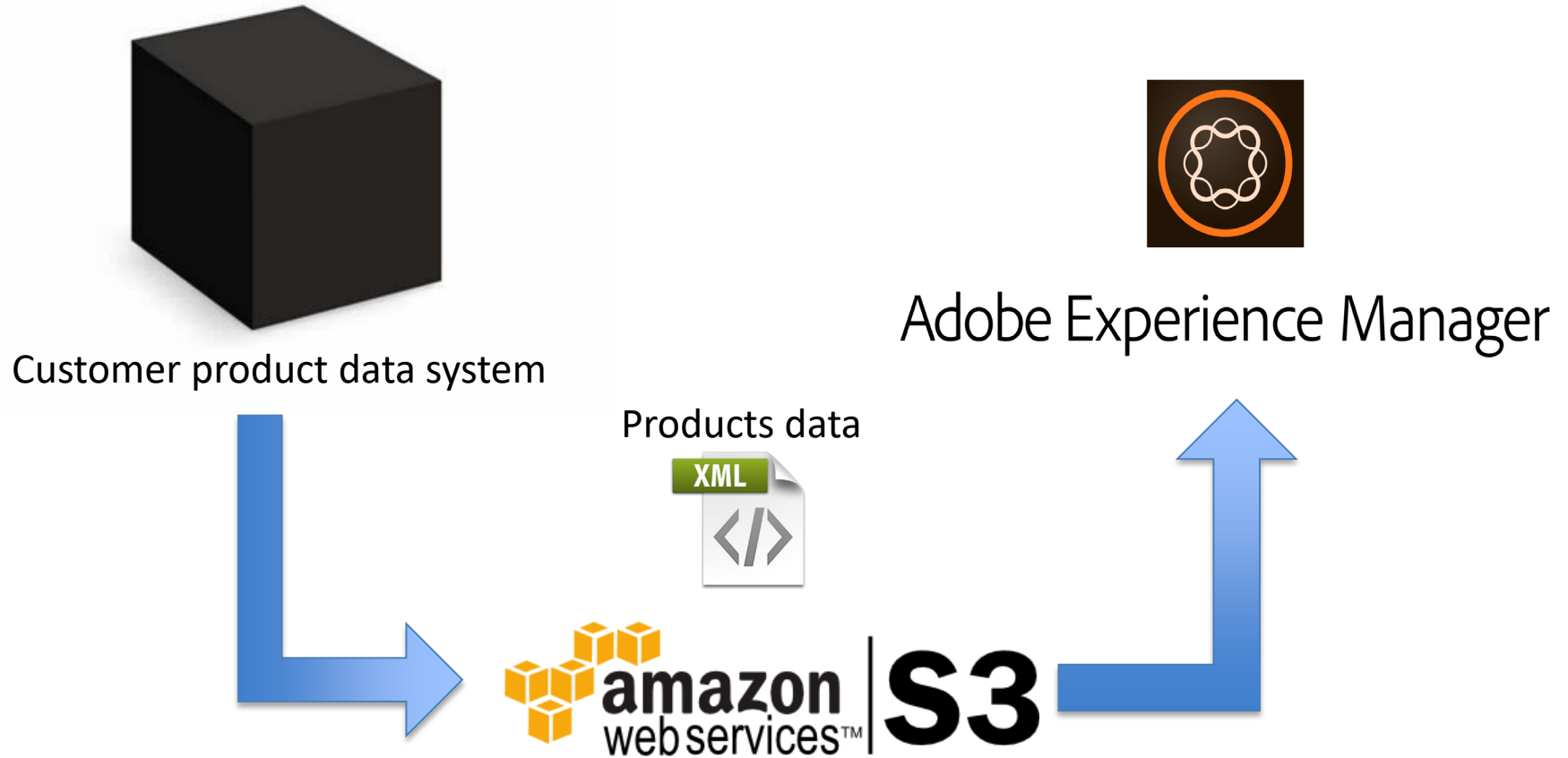
Customer product data system



Adobe Experience Manager

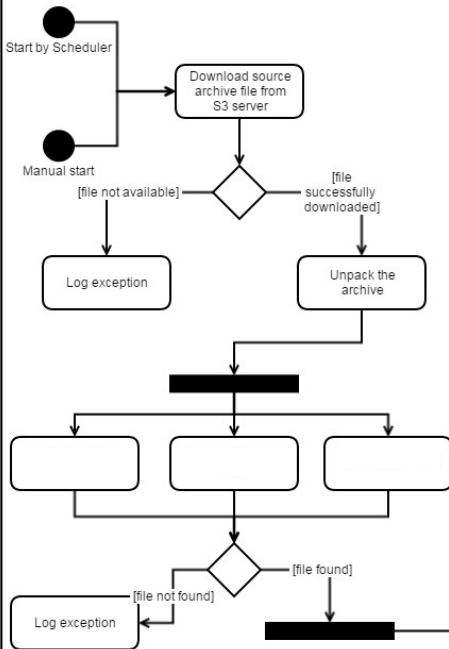


Daily data import data from one system to another

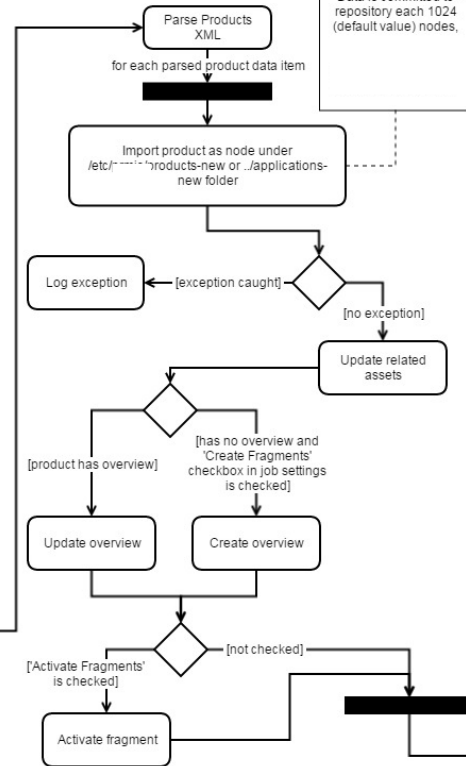


Products Data Import Stages

File download

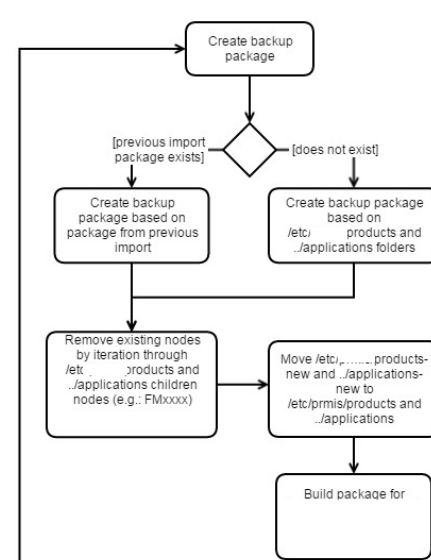


Products data import

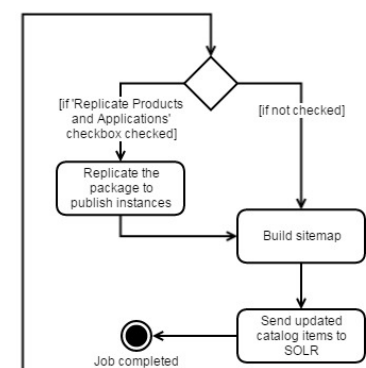


Data is committed to repository each 1024 (default value) nodes.

Products data backup



Data publishing




```

4927594 </property>
4927595 <property id="5095" type="boolean">
4927596   <value>No</value>
4927597 </property>
4927598 <property id="5096" type="string">
4927599   <value>18-FEB-2013</value>
4927600 </property>
4927601 <property id="5098" type="string">
4927602   <value>90</value>
4927603 </property>
4927604 </properties>
4927605 </updated-item>
4927606 <updated-item item-name="LNBTVS4-222S" parent-id="PF258273" prmis-id="CP99951" type="CP">
4927607   <secondary-parent-ids/>
4927608   <nsp-ids/>
4927609   <si-ids/>
4927610   <properties>
4927611     <property id="1" type="string">
4927612       <value>LNBTVS4-222S</value>
4927613     </property>
4927614     <property id="4" type="string">
4927615       <value>Lightning protection for LNB power supply</value>
4927616     </property>
4927617   </properties>
4927618 </updated-item>
4927619 </updated-items>
4927620
4927621

```

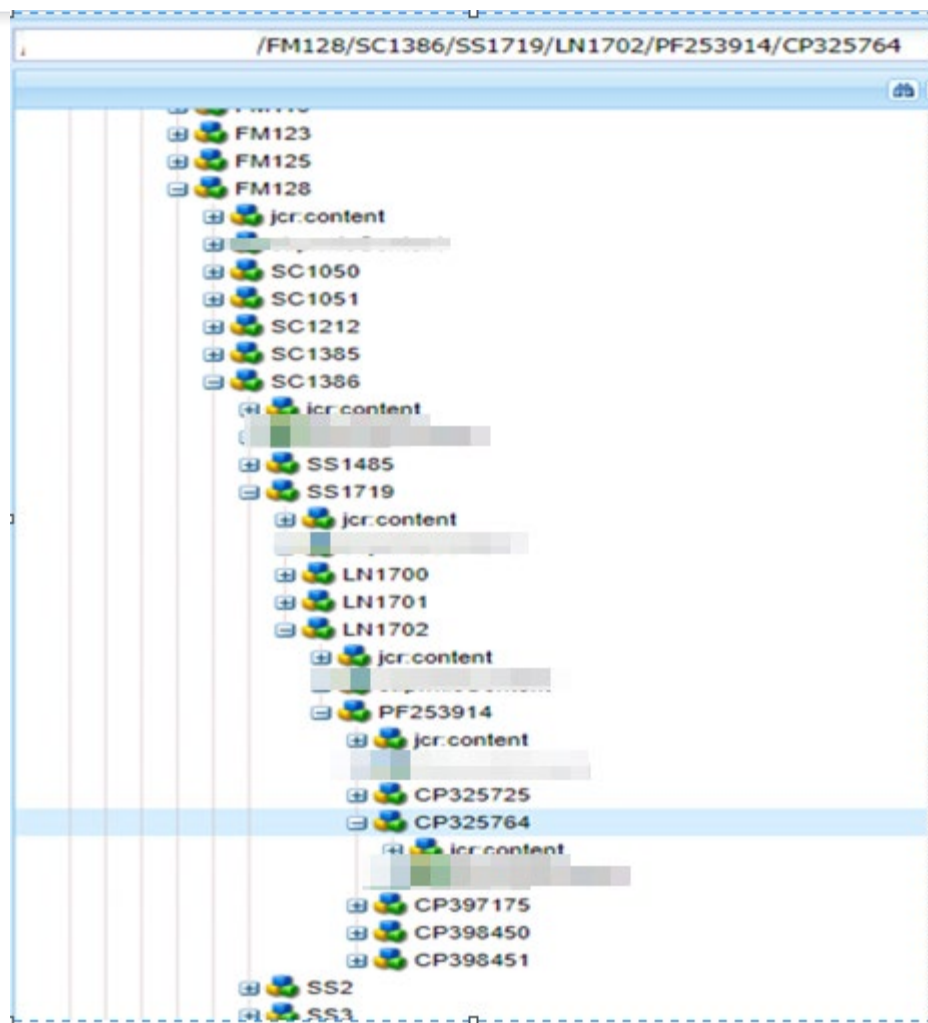
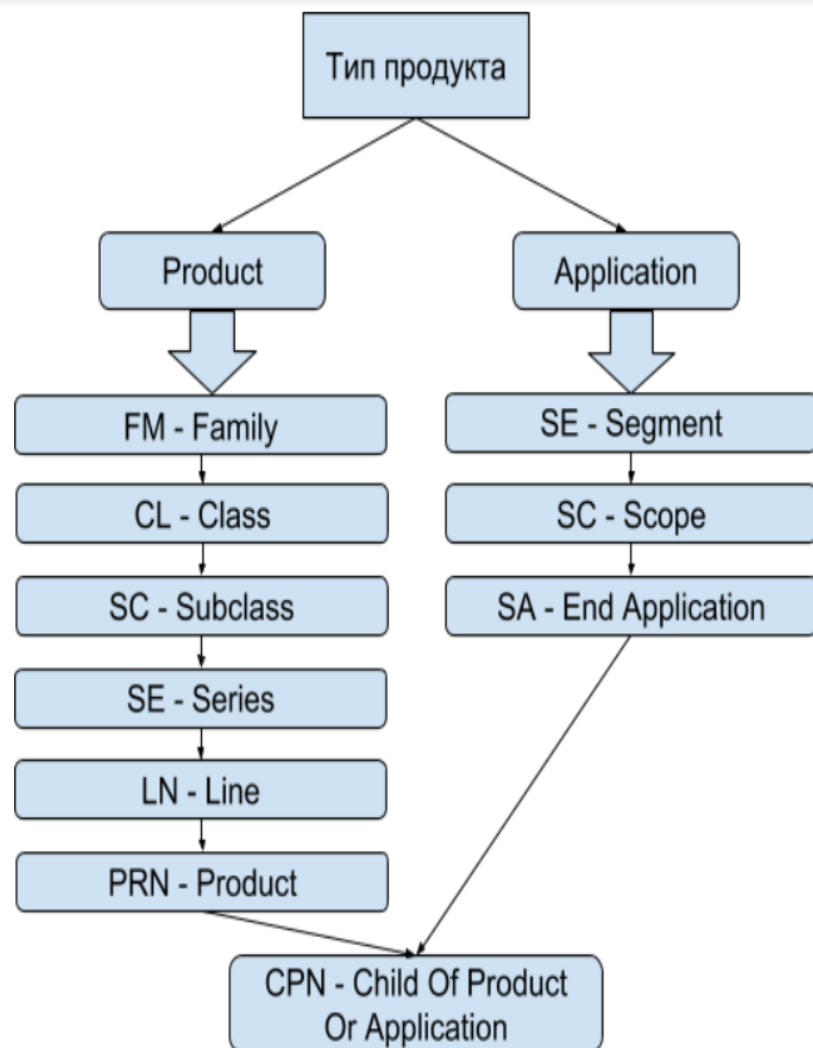
Type of file: XML File (.xml)

Opens with:  Notepad++ : a free (GN

Location: D:\temp\!05-feb

Size: 150 MB (157,766,362 bytes)

Size on disk: 150 MB (157,769,728 bytes)

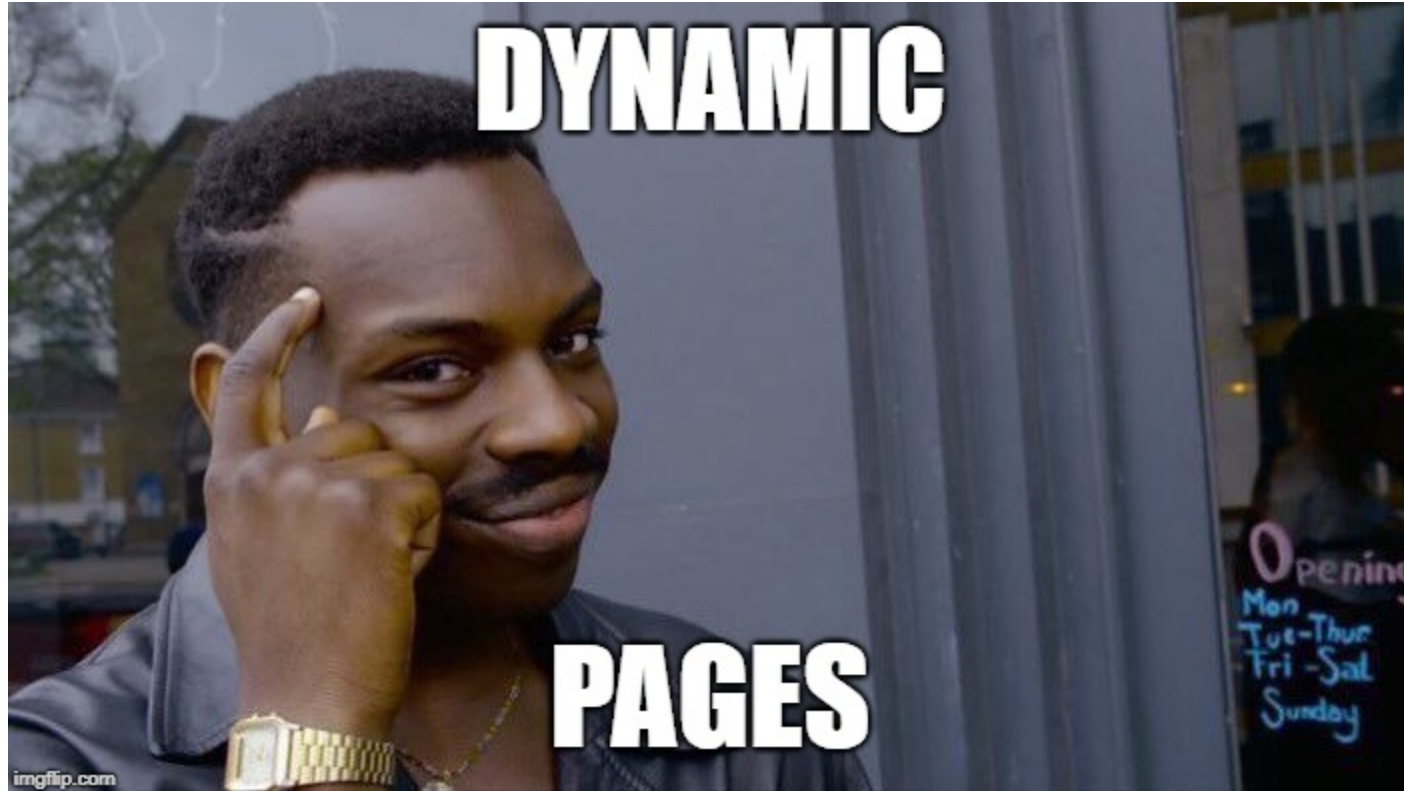


- ▶ We imported products data in AEM and now we have product tree
- ▶ Products Catalog on site should be based on this nodes tree in Repository
- ▶ Each product should have it's own page with it's own content
- ▶ There are more than 80k products
- ▶ Sooo....

How could we create and manage all this pages?

- Create the pages manually – too complex
- Create by the script – ok, but how to manage after creation?
- So what is the solution?



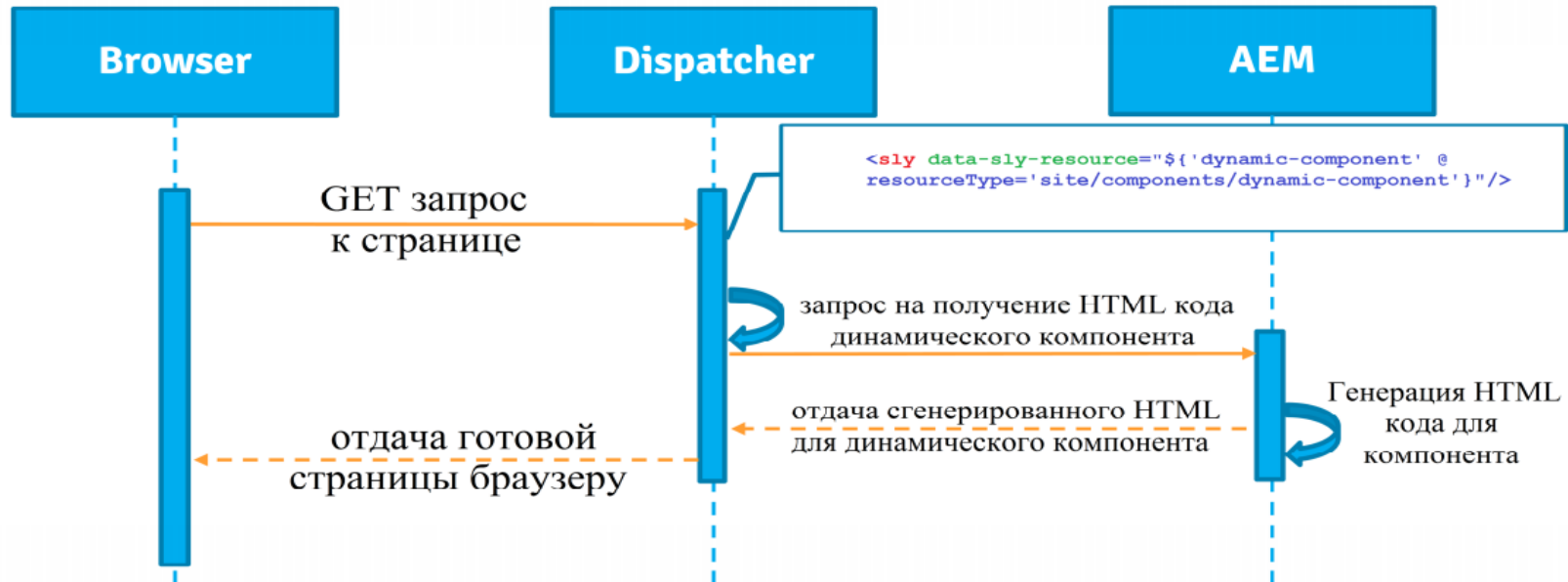


We'll creating the pages on the runtime – on request

Generic scheme

```
<div class="page-content">  
  <sly data-sly-resource="${'header' @ resourceType='site/components/header'}"/>  
  <sly data-sly-resource="${'body' @ resourceType='site/components/body'}"/>  
  <sly data-sly-resource="${'footer' @ resourceType='site/components/footer'}"/>  
</div>
```

Включение динамических компонентов в страницу в HTML коде



- We have product data and the way to create the page
- We should define which content product page should display
- Since we have different product types we will have page template for each of the types
- On template level we will define a list of components that needs to be shown for this page type

HEADER

Features

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Photo

Resources

	software	
--	----------	--

FOOTER

```

<div class="row -page-marker">
  <div class="large-9 columns">

    <div class="content nav-related clearfix">
      <div id="quickview-scroll">
        <div data-sly-resource="${'features' @ resourceType='catalog/components/containers/product/features'}" data-sly-unwrap></div>
        <div data-sly-resource="${'photo' @ resourceType='catalog/components/containers/product/photo'}" data-sly-unwrap></div>
      </div>
    </div>

    <div class="content nav-related clearfix">
      <div id="design-scroll">
        <div data-sly-resource="${'resources' @ resourceType='catalog/components/containers/product/resources'}" data-sly-unwrap></div>
      </div>
    </div>

    <div class="content nav-related">
      <div id="sw-tools-scroll">
        <div data-sly-resource="${'software' @ resourceType='catalog/components/containers/product/software'}" data-sly-unwrap></div>
      </div>
    </div>
  </div>
</div>

```

How it will work?


- User opens the page:
- */content/en/products/processors/high-load/aem-based/lol321FX.html*
- How should we define which template we need to use for lol321FX if we don't have this page "physically" created and don't know it's **resourceType**?
- We will customize [Sling Resource Provider](#)
- So this provider will take product's name *lol321FX* from the URL
- And will find this product in our imported from S3 product tree
- We found that *lol321FX* is *PF12345* so template for **PF** should be used



Content storage

- So now we have templates and are able to render it
- How should we store the content?
- Since we don't have “physical” page with it's own content
- And we need to store different media assets of different types
- And also be able to set up multirelation

Content storage

- So now we have templates and are able to render it
- How should we store the content?
- Since we don't have “physical” page with it's own content
- And we need to store different media assets of different types
- And also be able to set up multirelation
- What should we do? 

Content Creation Console

AEM WCM

Content Creation Console My History Notice Board (19)

Property Filters

Fulltext Version Confidentiality Sort By Language Direction

Fulltext: Version: Confidentiality: Any Sort By: None Language: None Direction: Ascending Search Reset Advanced filter

New... Delete Edit Associations Copy Associations Paste Associations Start Workflow Abort Workflow Reclassify Download Create Version Activate Deactivate Lock-Unlock Add/Update Translation Settings...

Title	Description	Activated	Version	Languages	Modified	Confidentiality
test-resouce-codec2	test-resouce-codec2 desc	<input type="checkbox"/>	1.0.0	en	<input type="checkbox"/>	Public
test-resouce-codec4	test-resouce-codec4 desc	<input type="checkbox"/>	1.0.0	en	<input type="checkbox"/>	Public
Test Resource	test	<input checked="" type="checkbox"/>	1.0.0	en	<input type="checkbox"/>	Public
codec_2	codec_2	<input type="checkbox"/>	1.0.0	en	<input type="checkbox"/>	Public
res_zip_1	res_zip_1	<input type="checkbox"/>	1.0.0	en	<input type="checkbox"/>	Public
S3-upload-0505	by marius	<input checked="" type="checkbox"/>	1.0.0	en,ja,zh	<input type="checkbox"/>	Public
res-with-translations	by marius	<input type="checkbox"/>	1.0.0	en,zh,ja	<input type="checkbox"/>	Public
test-resouce-codec3	test-resouce-codec3 desc	<input checked="" type="checkbox"/>	1.0.0	en	<input type="checkbox"/>	Public

CCC

- Fragment
- Resource
 - Site
 - Premium Content
 - Corporate
 - Legal
 - Quality And Reliability
 - Sales And Marketing
 - Technical
 - Digital Certificates
 - Binary resources
 - Document
 - HW Model, CAD Libraries & SVD
 - Layouts And Diagrams
 - Software
 - Application Sw
 - Codec
 - Demo And Example
 - Driver
 - Firmware
 - Library
 - Middleware
 - Operating System
 - Protocol Stack
 - Sw Development Suite
 - Utility
 - SW Updater
 - Codec 2
 - Application Sw 2
 - Demo and Example 2
 - Driver 2
 - Firmware 2
 - Library 2
 - Middleware 2
 - Operating System 2
 - Protocol Stack 2
 - Sw Development Suite 2
 - Utility 2
- Training

How can we define which content should be shown for the product?

- Every product have it's own ID
- Every component on the page will use content from specified path(s) from CCC
- So we will associate content from CCC with the product
- Let's create a resource and associate with some product

→ ↺ ⚠ Not secure | /application_presentation

AEM WCM

Content Creation Console | My History | **Notice Board (19)**

Property Filters

Fulltext Version

Event Information

- Event
- Event Image
- Korean Event

Hr Information

Product Promotion Information

E-learning

Legal

Multimedia

Press

Product Related

Quality And Reliability

Sales And Marketing

Website Building Block

Resource

- Site
- Premium Content
- Corporate
- Legal
- Quality And Reliability
- Sales And Marketing
 - Information
 - Presentation
 - Application Presentation**
 - Product Portfolio
 - Product Presentation
 - Sales Presentation
 - Technology Presentation
- Product Specification
- Promotional Material

Technical

- Digital Certificates
- Binary resources
 - Utilities
 - Compiled demos

Create Resource

General Associations Multimedia only

Title* TestPresentation

Description* TestPresentation

Taxonomy

ccc : Resource / Sales And Marketing / Presentation / Application Presentation

Default Language* English

Confidentiality* Public

Expiration Date

Resources

Choose File

Browse...

Add Item

Create Cancel

LED Lighting - General Illumination	04-Mar-2016 13:48 (Administrator)	1.0	en
Secure data storage solutions		1.1	en

Resource | TestPresentation

TestPresentation

Taxonomy

resource/sales_and_marketing/presentation/application_presentation

Products & Applications Associations

[3/PF260790](#)

Display location

English

Other properties

Fragment version: 1.0

2_S3-upload.zip

Add/Update Translation

Page Properties of TestPresentation

General **Associations** Multimedia only Software Only History

Associations

Product Associations

Search Tree: Search X Filter Associations:

Available Tags

Tag ID	Tag Title	Tag Type ID
PF2		Root Part

Associated Tags

Tag ID	Tag Title	Tag Type ID
PF2		Root Part

OK Cancel



Test Presentation

Test Presentation


Test Presentation

RESOURCES


Quick Links

Presentations & Training Material

Presentations

	Description	Version	Size
	TestPresentation	1.0	343.17 KB

Training Material

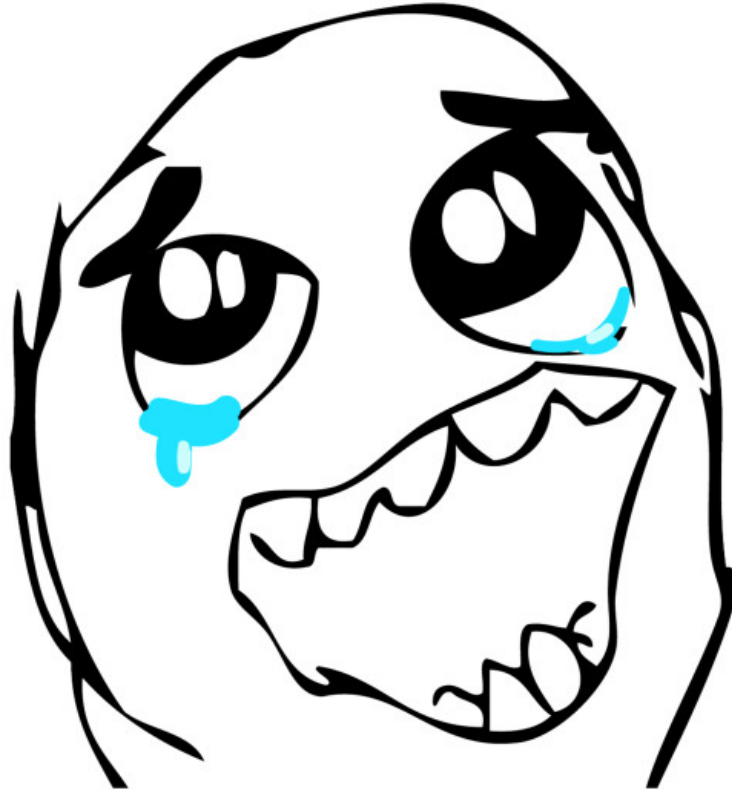
	Description	Version	Size
	Test Presentation	1.0	343.17 KB

Components Configuration

- Now we are able to build the page based it's templates with the pre-defined component which will get the content from CCC
- But how can we set up some components configuration if pages are dynamic?
- For example how many items this component should display
- Hardcode - one of the options
- But it's better to configure it somehow
- And again we have a question - what should we do?



Another custom console of course



← → ↻ ⓘ Not secure

AEM WCM

Admin Console

Configuration

- Pages Configuration
- Translation Paths
- Navigation
- Configuration
- Managers
- Page Right Rail Configuration
- Applications Right Rail Navigation
- Dynamic
 - Customer Configuration
 - Product Configuration
 - Subscription
 - Products
 - Configuration
 - Segment Configuration
 - Product Folder Configuration
- Modal Button Colors
- Static
- Tools & Software Modal

New... Edit... Delete Activate Deactivate Partners' E-mails Download Part

Title	Name
1 Obsolete products	Obsolete products
2 Application Customer Configuration	ac_config
3 Application Segment Configuration	se_config
4 Product Family Configuration	fm_config
5 Product Folder Configuration	pf_config
6 Application Scope Configuration	Application Scope
7 Software Product Folder Configuration	spf_config
8 Newsletter subscription	Newsletter subscri

Config Node

Settings

Title: Application Segment Configuration

Config Description: Right Rail contents configuration for Application Segment and Scope pages

Application/Product Level Tags: - Segment

Components Displayed

Application Tree Modal	↑	↓	⊖
Resources Modal	↑	↓	⊖
Get-Started Modal	↑	↓	⊖
Tools and Software Json Modal	↑	↓	⊖
eDesign Modal	↑	↓	⊖
Support & Community Modal	↑	↓	⊖
Related Documents	↑	↓	⊖
Related Links en	↑	↓	⊖
Featured Product Container	↑	↓	⊖
Featured Videos	↑	↓	⊖
Commercial Banner	↑	↓	⊖
Featured Application Container	↑	↓	⊖
News and Highlights	↑	↓	⊖
Upcoming Events Right Rail	↑	↓	⊖
Upcoming Seminars	↑	↓	⊖
Related Application Container	↑	↓	⊖

OK Cancel

Adobe Campaign

- ▶ Event Management
- ▶ Newsletters
- ▶ Lead Management
- ▶

And of course we will have all the data for the targeting

Event Management

Adobe Campaign Classic -

File Edit View Tools Help

Home Explorer

Country
State
City
ISP
University
Product Preferences
Software Downloads
Online Support
Lead
Offline Touchpoint
Trust trackingLog
Subscription
Region
DataImportLog
VIP Company
Opt-in Preferences History
Administration
Message Center

Event

event title contains 'ko'

Event Id	Event title	Event start date	Event end date
107,064,651		10/26/2018	11/02/2019
107,062,225		10/26/2018	10/26/2018
107,035,431		11/08/2018	12/20/2018
109,073,335		12/01/2018	12/01/2019
108,820,604		12/05/2018	12/20/2018
110,424,372		12/16/2018	12/31/2018
109,821,712		12/17/2018	12/18/2018
110,429,150		12/17/2018	12/31/2018
110,406,436		12/17/2018	12/31/2018

Event 'AEM meetup event' * (creation) *

General

Event title: AEM meetup event
Event status: Open
organizer: (n.mitroshin)
Language: English
Event date
Event start date: 02/20/2019
Event end date: 02/21/2019
Event start time: 12:00:00 AM
Event end time: 12:00:00 AM
Event description
AEM meetup event
AEM meetup event
AEM meetup event
20.02.2019

Event type: Webinar
Registration type: Automatic
Image Url:
Associated survey: Marketing Event - 19/01/2016 (: P30)

Service 'Minsk AEM (xxxXXX436)' *

EditAdditional infoSubscriptions

Label:Minsk AEM

Sub label:

Internal name:xxxXXX436

Phone:

Type:Generic Event

Service status:

Event:115838745

Event details

Dates

Event start date:02/20/2019

Event end date:02/21/2019

Duration:

Event start time:12:00:00 AM

Event end time:12:00:00 AM

Time zone:(GMT) Greenwich mean time

Location

Address 1:Imaguru

Address 2:

Address 3:

Address 4:

City:Minsk, BY

Zip/Postcode:220000

State:

Country:Belarus

Phone:

Seat number

Seat number:10

Confirmation messages


Subscription:Event - Attendance Thank You Email (stmEventAttendanceThankYouEmail)

Unsubscription:

OkCancel

As a result of custom sync AC -> AEM we have the event page

hands-on workshop



...

...

...

...

... technology
is

...

...

... be used

...

There is no charge to participate in this event, but you must register through

If you have a account

Register Now >

If you do not have a account

Create An Account >

Newsletters

- We can just send all the news to all the users
- But it's better to do it in the smart way
- User is able to choose from the available preferences
- But also he can specify it

My Preferences

My Subscriptions

To remove an item, uncheck the box and click on the Confirm button below.

<input type="checkbox"/> [redacted] (bi-yearly)	<input type="checkbox"/> English
<input type="checkbox"/> [redacted] (quarterly)	<input type="checkbox"/> English
<input type="checkbox"/> [redacted] (quarterly)	<input type="checkbox"/> English
<input type="checkbox"/> [redacted] (quarterly)	<input checked="" type="checkbox"/> 中文 <input type="checkbox"/> English
<input type="checkbox"/> [redacted] (quarterly)	<input type="checkbox"/> 中文 <input type="checkbox"/> English
<input type="checkbox"/> [redacted] (bi-monthly)	<input checked="" type="checkbox"/> English <input type="checkbox"/> 中文
<input type="checkbox"/> [redacted] (quarterly)	<input type="checkbox"/> 中文 <input type="checkbox"/> English
<input type="checkbox"/> [redacted] (bi-monthly)	<input type="checkbox"/> English <input type="checkbox"/> 中文
<input type="checkbox"/> [redacted] (quarterly)	<input type="checkbox"/> 中文 <input type="checkbox"/> English
<input type="checkbox"/> [redacted] (monthly)	<input type="checkbox"/> 中文 <input checked="" type="checkbox"/> English
<input type="checkbox"/> [redacted]	<input type="checkbox"/> English

Confirm





Menu

▼

Search

Q



Product Catalog



English



Hi Nick

Home > Point of Sales and Retail Logistics

Point of Sales and Retail Logistics



Save to My



Share



Print

OVERVIEW

RESOURCES



FEATURED VIDEOS

[See All](#)

My Center of Interest

Stay informed of any changes related to a product family of your interest. See all your current subscriptions below. To unsubscribe uncheck box and click on the Confirm button below.

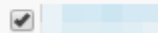
☐ Stay updated of any new information provided



— ☐ Amplifiers and Comparators

— ☐ Comparators

— ☒ Automotive Comparators



☒ Point of Sales and Retail Logistics

Confirm



- Country
- State
- City
- ISP
- University
- Product Preferences
- Application Preferences
- Software Downloads

Application Preferences

[email for recipient equal to 'o12797135@nwytg.net'](#)

Recipient	Application Segment	Applicatio
O12797135@Nwytg.N	Point of Sales and Retail Logistics	

Application Preferences '205435508'

Recipient: O12797135@Nwytg.Net O12797135@Nwytg.Net (o12

- Country
- State
- City
- ISP
- University
- Product Preferences
- Application Preferences

Product Preferences

[email for recipient equal to 'o12797135@nwytg.net'](#)

Recipient	Product Creation Date	Product Family	Product RP
O12797135@Nwytg.N	02/20/2019 3:15:55 PM		
O12797135@Nwytg.N	02/20/2019 3:15:55 PM		LM2903H
O12797135@Nwytg.N	02/20/2019 3:15:55 PM	Audio ICs	

Product Preferences '205435511'

The screenshot displays the Adobe Campaign user interface. On the left, a tree view shows the project structure with folders for 'Production', 'Technical workflows', and 'Imprint Workflows'. The 'Lead management' folder is expanded. The main workspace is divided into two panes. The top pane, titled 'Lead management (By name or label)', shows a table of leads. The table has columns for 'Label', 'Internal name', 'Status', 'Failed', 'Last processing', and 'Last modified'. The bottom pane, titled 'Workflow: 3.0- Lead status update (stmLeadStatusUpdate)', shows a workflow diagram. The diagram includes a 'Label: 3.0- Lead status update' and a 'Status: Started' indicator. The workflow diagram shows a complex sequence of activities, including 'Lead status update' and 'Lead availability status update'.

The screenshot shows a web browser window with a product page. The browser's developer tools are open, displaying the console and context variables. A red box highlights a "Download Datasheet" button on the page. The console shows a log of the page's activity, including the page's title, the product name, and the context variables. The context variables include the page's title, the product name, and the context variables.

That's it!

Thank you