

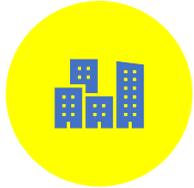
# Stylesheet Optimierung leicht gemacht

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SIEMENS PLM CONNECTION  
Juni 2023, Seeheim-Jugenheim

Prithvi Vivek Mavuri  
Stéphane Langlade

# Vorstellung CAD'N ORG



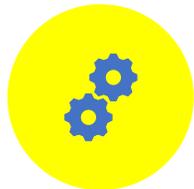
CONSULTING  
UNTERNEHMEN FÜR PLM  
UND CAD-LÖSUNGEN



GEGRÜNDET 1998 IN  
RÜSSELSHEIM



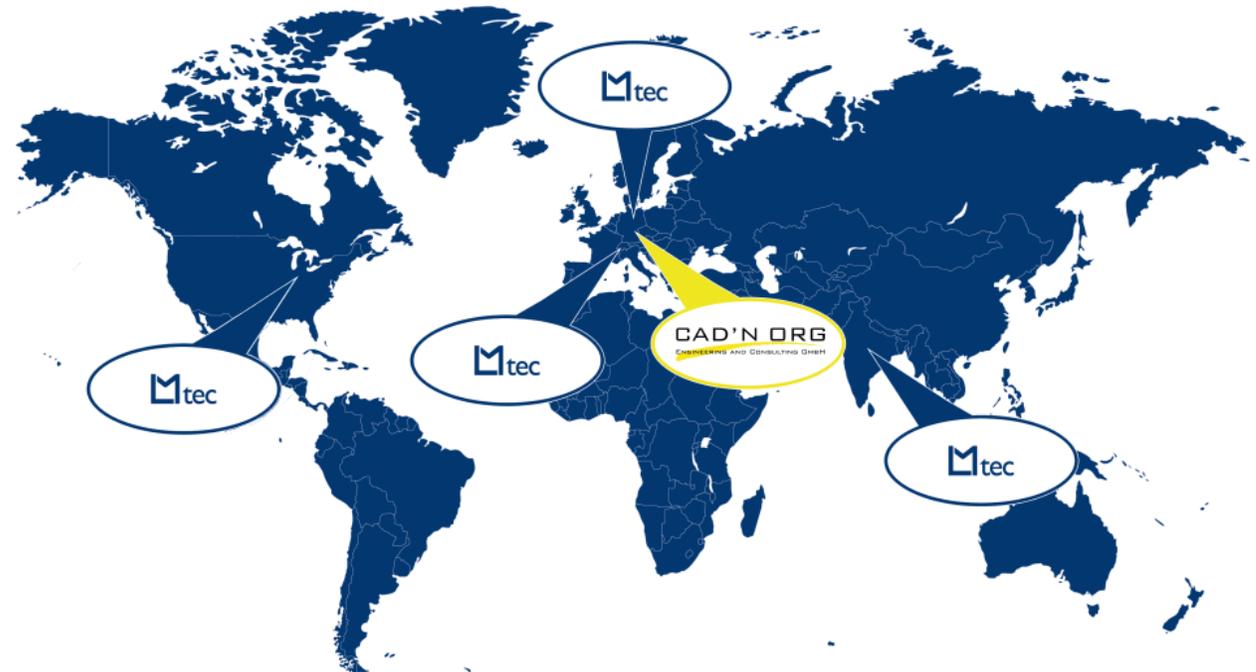
SCHWERPUNKTE:  
CONSULTING,  
ADMINISTRATION,  
HELPDESK, ...



SOFTWARE-  
ENTWICKLUNG ZUR  
OPTIMIERUNG VON  
TEAMCENTER



PARTNER DER SIEMENS  
DIGITAL INDUSTRY  
SOFTWARE



# Agenda

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## Kurzeinführung Stylesheets

- Typische Anwendungsfälle
- Best Practice-Ansätze

## Praktische Umsetzung

- Stylesheet Neuanlage (Live-Demo)
- Stylesheet Ergänzung
- Stylesheet Optimierung



# Teamcenter – Stylesheet Optimierung leicht gemacht

**Ziel:** Vereinfachung und Optimierung von  
Stylesheets

## **Zusätzliche Lernziele:**

- Ein Überblick über die Möglichkeiten  
von Stylesheets im Teamcenter
- Best-Practice-Ansätze



# Stylesheet Anwendungsfälle



Definieren und Steuern der Darstellung von Information



Flexibilität bei der Anpassung an unterschiedliche Anforderungen



Fördert die Wiederverwendbarkeit von Stylesheets



Bestehen aus Regeln und Vorlagen, die beschreiben, wie Attribute dargestellt werden sollten



# Häufige Herausforderungen mit Stylesheet



**Datenvalidierung**

**Performance**

**Wartbarkeit**

**Fehlerbehandlung**

# Best Practice-Ansätze



Verwenden Sie  
einen geeigneten  
XML-Editor



Klare Strukturierung



gründlich testen



Performance  
optimierung



Dokumentation



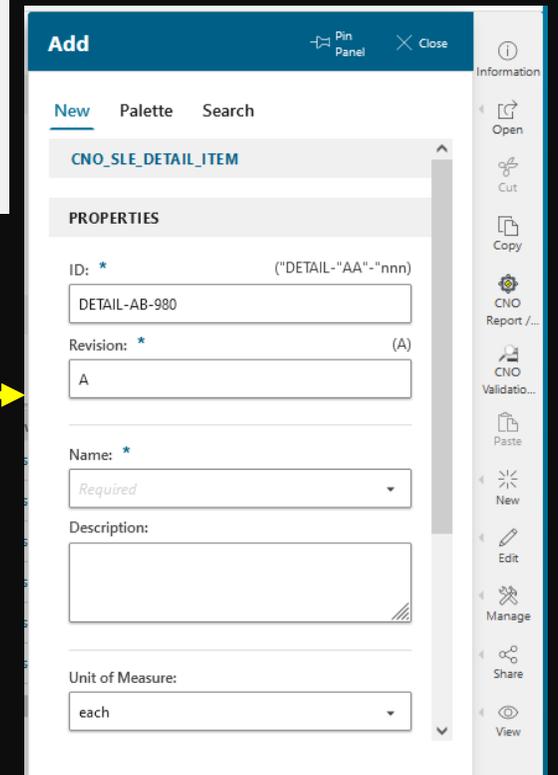
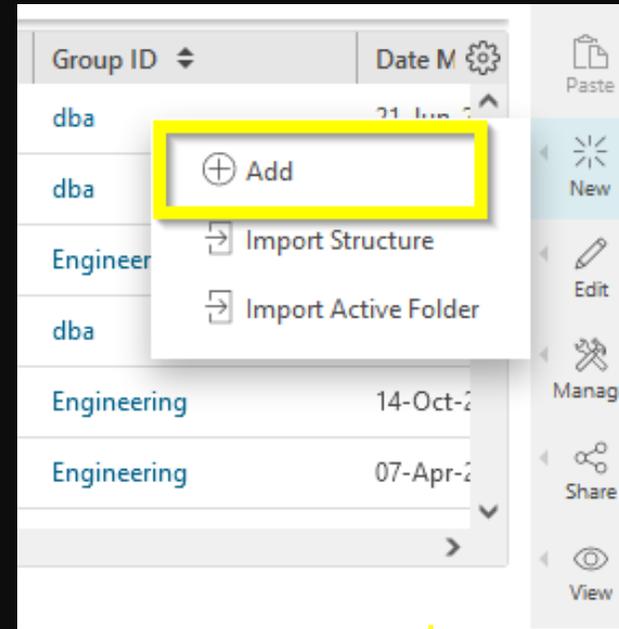
Versionierung und  
Backups



# Live Demo

- Objektanlage in AWC
- XRT Editor im AWC
- Stylesheet-Erweiterung mit neuen Attributen
- Stylesheet Optimierung mit CNO Validation Framework

# Objektanlage in AWC



# XRT Editor im AWC

user01 (user01)

Project: no project

Group: dba

Role: DBA

Workspace: Active Architect

Active Admin

Author

**Active Architect**

Profile

Sign Out

Teamcenter

CNO VALIDATION FRAMEWORK...

WORKFLOW DESIGNER

CNO VALIDATION FRAMEWORK...

CLIENT CONFIGURATION

**XRT EDITOR**

XRTEditor

Scope: Site Client: Active Workspace Object Type: Folder XRT Type: Summary Location: showObjectLocation Sublocation: objectNavigationSubLocation

**Awp0FolderSummary (Read only)**

```

1 <?xml version="1.0" encoding="UTF-8"?>
2 <!--
3 // @<COPYRIGHT>@
4 // =====
5 // Copyright 2014.
6 // Siemens Product Lifecycle Management Software Inc.
7 // All Rights Reserved.
8 // =====
9 // @<COPYRIGHT>@
10 -->
11 <!-- Default style sheet for displaying Folder properties. -->
12 <rendering xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="XMLRenderingStylesheet_Schema.xsd">
13   <header>
14     <image source="type"/>
15     <property name="owning_user"/>
16     <property name="last_mod_date"/>
17     <property name="release_status_list" renderingHint="overflow"/>
18     <property name="object_type"/>
19   </header>
20   <page titleKey="tc_xrt_Overview">
21     <section titleKey="tc_xrt_properties">
22       <property name="object_name"/>
23       <property name="object_desc"/>
24       <property name="owning_user" renderingHint="objectlink" modifiable="false"/>
25       <property name="owning_group" renderingHint="objectlink" modifiable="false"/>
26     </section>
27     <section titleKey="tc_xrt_Contents">
28       <objectSet source="contents.WorkspaceObject" defaultdisplay="tableDisplay" showConfiguredRev="true" >

```

**Outline**

- rendering: http://www.w3.org/2001/XMLSchema-instance
  - header
  - page: tc\_xrt\_Overview
    - section: tc\_xrt\_properties**
      - property: object\_name
      - property: object\_desc
      - property: owning\_user
      - property: owning\_group
    - section: tc\_xrt\_Contents
      - inject: dataset

**Details**

Attribute	Value (editable)
xmlns:xsi	http://www.w3.org/2001/XMLSchema-instance
xsi:noNamespaceSchemaLocation	XMLRenderingStylesheet_Schema.xsd

# Stylesheet- Erweiterung mit neuen Attributen

```
Awp0myDetailItemCreate (Read only)
8 // =====
9 // @<COPYRIGHT>@
10 -->
11 <!-- Style sheet rendering for Item creation. -->
12
13 <rendering>
14   <page titleKey="tc_xrt_CreateItem">
15     <section titleKey="tc_xrt_properties">
16       <property name="item_id" renderingHint="textfield"/>
17       <property name="revision:item_revision_id" />
18       <separator />
19       <property name="object_name" />
20       <property name="object_desc" />
21       <separator />
22       <property name="cn25_note" />
23       <property name="uom_tag" />
24     </section>
25
26     <section title="Material Item Information" titleKey="tc_xrt_MaterialItemInformation" initialstate="collapsed">
27       <property name="cn25_SubType" />
28       <property name="cn25MatType" />
29       <separator/>
30       <property name="cn25MatManuf" />
31       <property name="cn25MatManufPrec" />
32     </section>
33
34   </page>
35 </rendering>
```

zusätzlicher Abschnitt



```
<section title="Material Item Information" titleKey="tc_xrt_MaterialItemInformation" initialstate="collapsed">
  <property name="cn25_SubType" />
  <property name="cn25MatType" />
  <separator/>
  <property name="cn25MatManuf" />
  <property name="cn25MatManufPrec" />
</section>
```



The screenshot shows a software interface with a table of items and a properties panel. The table has columns for Name, Description, Release Status, and Ch. Two items named 'Demo\_Item' are highlighted in yellow. The properties panel for the selected item shows the following details:

PROPERTIES	
ID:	DETAIL-AB-983
Name:	Demo_Item
Description:	
cn25_note:	
Type:	CNO_SLE_Detail_Item
Sub Type:	
Material Type:	
Unit of Measure:	each
Release Status:	
Date Released:	
Effectivity:	
Owner:	user01 (user01)
Group ID:	dba

# Doppelte oder uneinheitliche Daten

- Zwei Objekte mit gleichem Namen
- Zwei Objekte ohne Beschreibung
- keine korrekte Information darüber, welches das richtige Objekt ist

myDetailItemCreate (Read only)

```
Siemens Product Lifecycle Management Software Inc.  
All Rights Reserved.  
-----  
@<COPYRIGHT>@  
-->  
!-- Style sheet rendering for Item creation. -->  
  
rendering>  
<page titleKey="tc_xrt_CreateItem">  
  <section titleKey="tc_xrt_properties">  
    <property name="item_id" renderingHint="textfield"/>  
    <property name="revision:item_revision_id" />  
    <separator />  
    <property name="object_name" renderingHint="cnoVfwProperty(job=SEEHEIM_2023_JOB; chk_id_list=100)" />  
    <property name="object_desc" renderingHint="cnoVfwProperty(job=SEEHEIM_2023_JOB; chk_id_list=200)" />  
    <separator />  
    <property name="cn25_note" />  
    <property name="uom_tag" />  
  </section>  
  
  <section title="Material Item Information" titleKey="tc_xrt_MaterialItemInformation" initialstate="collapsed">  
    <property name="cn25_SubType" />  
    <property name="cn25MatType" />  
    <separator/>  
    <property name="cn25MatManuf" />  
    <property name="cn25MatManufPrec" />  
  </section>  
</page>
```

Teamcenter

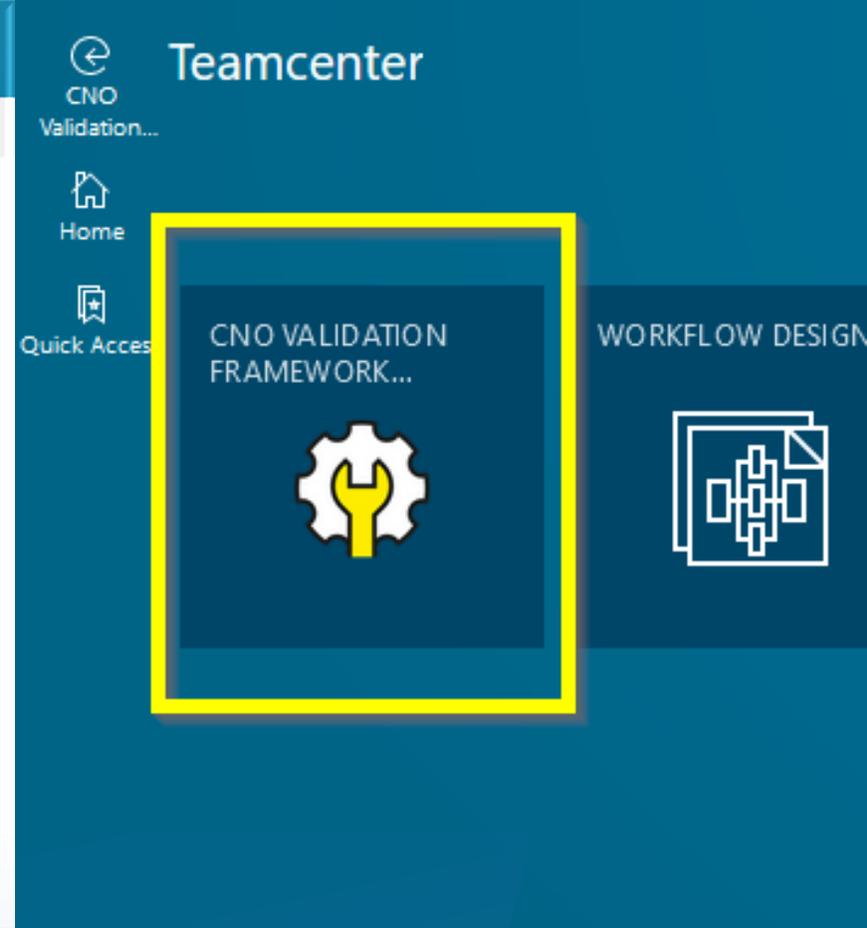
CNO Validation...

Home

Quick Access

CNO VALIDATION FRAMEWORK...

WORKFLOW DESIGN



# Stylesheet Optimierung mit CNO Validation Framework

# Stylesheet Optimierung

Ohne CNO-Extension

The screenshot shows the 'Add' form for 'CNO\_SLE\_DETAIL\_ITEM' without the CNO extension. The form is clean and professional, with a blue header and a white body. The fields are:

- ID: \* (DETAIL-"AA"-nnn) with value 'DETAIL-AB-935'
- Revision: \* (A) with value 'A'
- Name: \* with value 'Required' and a dropdown arrow
- Description: with an empty text area
- Unit of Measure: with value 'each' and a dropdown arrow

The right sidebar contains standard CAD actions like Open, Cut, Copy, Paste, New, Edit, Manage, Share, and View.

Mit CNO-Extension

The screenshot shows the 'Add' form for 'CNO\_SLE\_DETAIL\_ITEM' with the CNO extension. The form is cluttered with a yellow highlight on the Name field and a red error message:

Item name cannot be empty. Please give a Valid Name  
Required

Might be good to have a Description

The form fields are the same as in the previous screenshot, but the Name field is highlighted in yellow, and the error message is displayed in a red box. The right sidebar contains the same CAD actions as in the previous screenshot.

Item name cannot be empty. Please give a Valid Name  
Required

Might be good to have a Description

The callout box is a white rectangle with a red border. It contains the error message and a yellow highlight. An orange arrow points from the yellow highlight in the screenshot to this callout box.

# dba Gruppe

**Add** Pin Panel Close

New Palette Search

[Yellow bar]

Unit of Measure:  
each

**TC\_XRT\_MATERIALITEMINFORMATION**

Sub Type:  
[Dropdown]

Material Type:  
[Dropdown]

Material Manufacturing type:  
[Dropdown]

Manufacturing precision:  
[Dropdown]

**Add**

# Engineering Gruppe

**Add** Pin Panel Close

New Palette Search

Name: \*  
Required [Red bar]

Description:  
[Green bar]

Unit of Measure:  
each

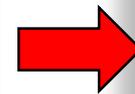
**TC\_XRT\_MATERIALITEMINFORMATION**

OWNING PROJECT

PROJECTS

⊕ Add

Ausblenden  
von  
Eigenschaften  
mit CNO



# AutoFill mit CNO

**Add** Pin Panel Close

Information

New Palette Search

Description:

Unit of Measure:  
each

**TC\_XRT\_MATERIALITEMINFORMATION**

Sub Type:  
Flexible\_Collector  
**CNO AutoFill**  
Collector Sub-Assembly

Material Manufacturing type:

**Add**

Open  
Cut  
Copy  
CNO Report /...  
CNO Validatio...  
Paste  
New  
Edit  
Manage  
Share  
View

# Fragen?

CAD 'N ORG GMBH

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[info@cadnorg.eu](mailto:info@cadnorg.eu)

...und Antworten auch hier am

Standnummer

**27**