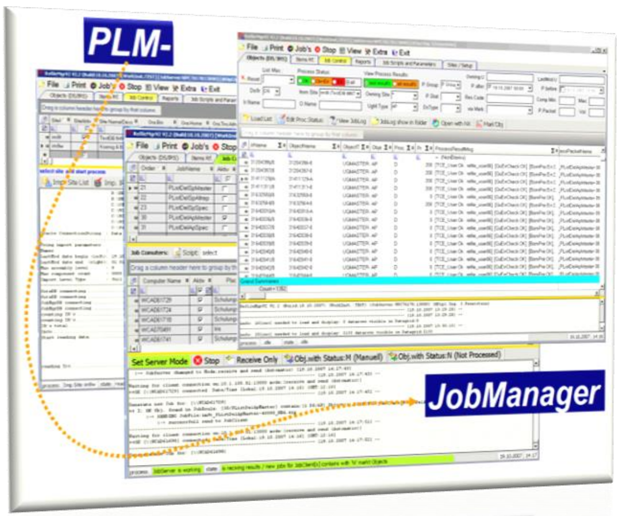
* CheckBox *



PLMJobManager - CheckBox
Details of the data analysis

Erstellt von: Josef Feuerstein

Inhaltsverzeichnis

Glosar

No	SORT	Long	Desctription	Notes	Dates
01	GVP	Geometrische Validation Properties	Definiert welche der MP Daten die Geometrischen Daten beinhaltet.	LOTAR Definition	#New: 5.4.2013
02	MP	Massproperties	Die Massproperties umfassen die zu prüfenden Daten wie z.B. 3D SoldiBodys Attribute	Begriff von MTU	#New: 5.4.2013

22.04.2015 FEI → Issue: ‘Invalid file Name’ with Sheet Metal Parts

```
Loading "%UGMGR=V3.2 PH=5_VRXda_gzy3FC PRH=T2bVhkG5gzy3FC PN=1081727 PRN=D RT="has shape" AT="UG master part file" " which was saved in N
*** EXCEPTION: Error code  920007 in line 192 of o:\ugnx754\ip4\src\pdi\no\ind\pdi_error_handling.c at Sat Apr 11 16:34:01 2015 W. Europe
+++ Return code 920007 found in PDI interface function PDI_fms_export_named_refs
[ 1] 07FEFD75940D                                                (KERNELBASE)
[ 2] 00000158EFCD                                                (libsyss)
...
[42] 00013F2144F9                                                (NxCheckBox_64_75_V.2.0.1.8)
[43] 00013F21BB32                                                (NxCheckBox_64_75_V.2.0.1.8)
[44] 000076D959ED                                                (kernel32)
[45] 00007724C541                                                (ntdll)
>>>> Error code  920007 caught in file "D:\workdir\reference\NX754_4\src\sbsm\no\ind\SheetMetal_MatStdFile.cxx" at line number 696
>>>> Error code  920007 successfully handled and acknowledged
 Sheet Metal Material Standards : Loading file standards::A::standards/A.
*** EXCEPTION: Error code  1020005 in line 361 of D:\workdir\reference\NX754_4\src\sbsm\no\ind\SheetMetal_MatStdFile.cxx at Sat Apr 11 16
+++ Invalid file name
[ 1] 07FEFD75940D                                                (KERNELBASE)
[ 2] 00000158EFCD                                                (libsyss)
....
[38] 00013F21BB32                                                (NxCheckBox_64_75_V.2.0.1.8)
[39] 000076D959ED                                                (kernel32)
[40] 00007724C541                                                (ntdll)
>>>> Error code  1020005 caught in file "D:\workdir\reference\NX754_4\src\sbsm\no\ind\SheetMetal_MatStdFile.cxx" at line number 403
>>>> Error code  1020005 successfully handled and acknowledged
 Sheet Metal Material Standards : Loading file C:\Program files\UGS\NX 7.5\ugii\materials\sheet_metal_material_table.txt.
```

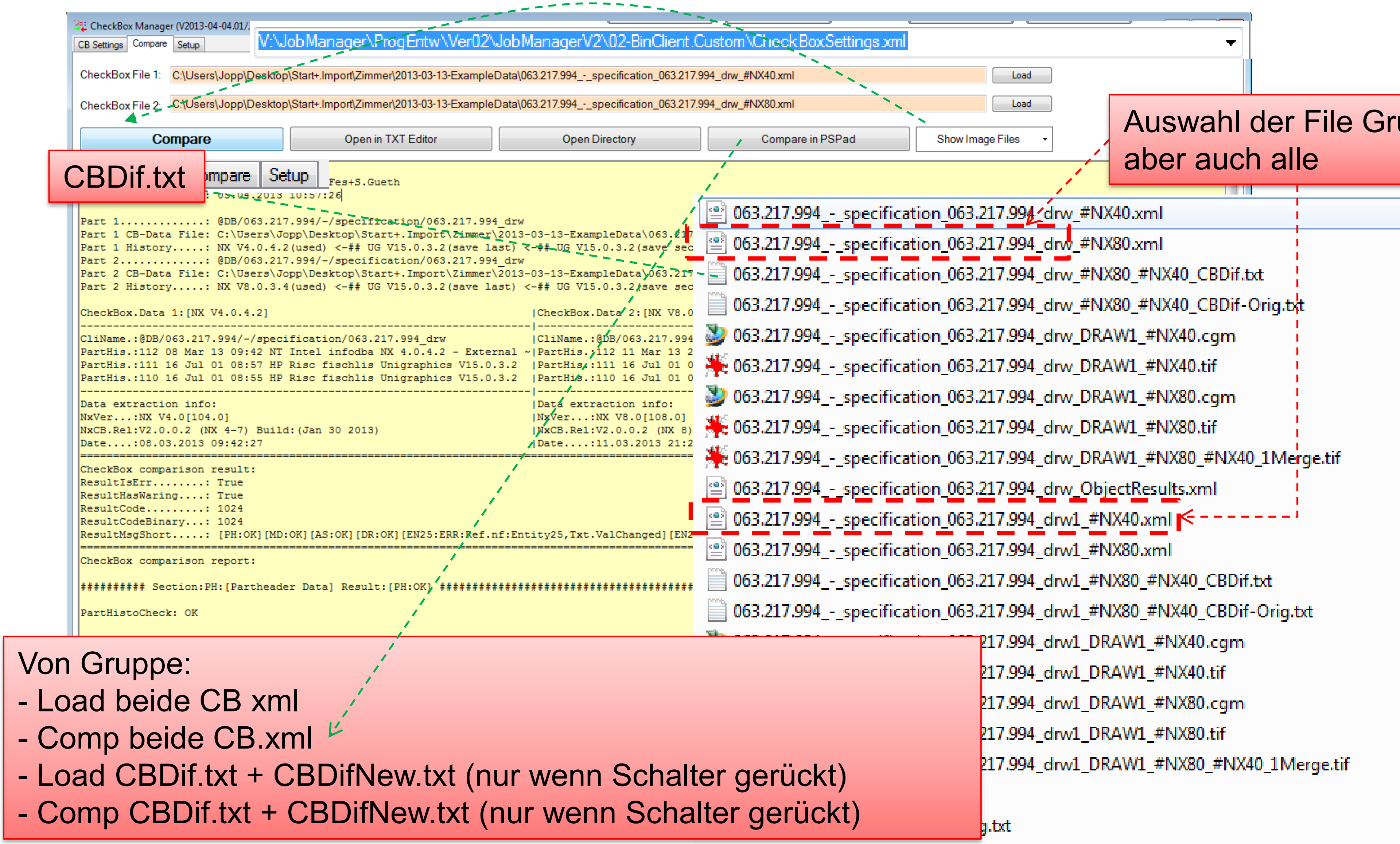
How to handle this kind of Errors / Exceptions?

Solution to prevent Issue Invalid file Name

In Out Of The Box NX customer defaults under Sheet Metal -> General, Materials tab, Teamcenter group the following settings exists
Item ID: standards
Item Revision: A
Dataset Name: standards/A
I assume these settings apply in your environment as well.
I created a "standards/A" item revision in my TC environment, created a "standards/A" dataset and imported the named reference "sheet_metal_material_table.txt" from %UGII_BASE_DIR%\ugii\materials to it.

- Now when I open your part in the TC environment I no longer get the errors in the NX log file.

CheckBox Settings Manager + CheckBox Result Viewer #New 5.4.2013



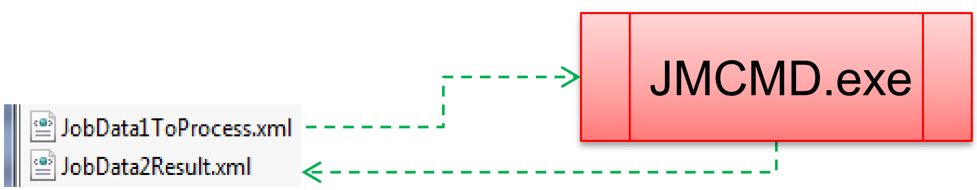
CheckBox process description

How the CheckBox Data are generated

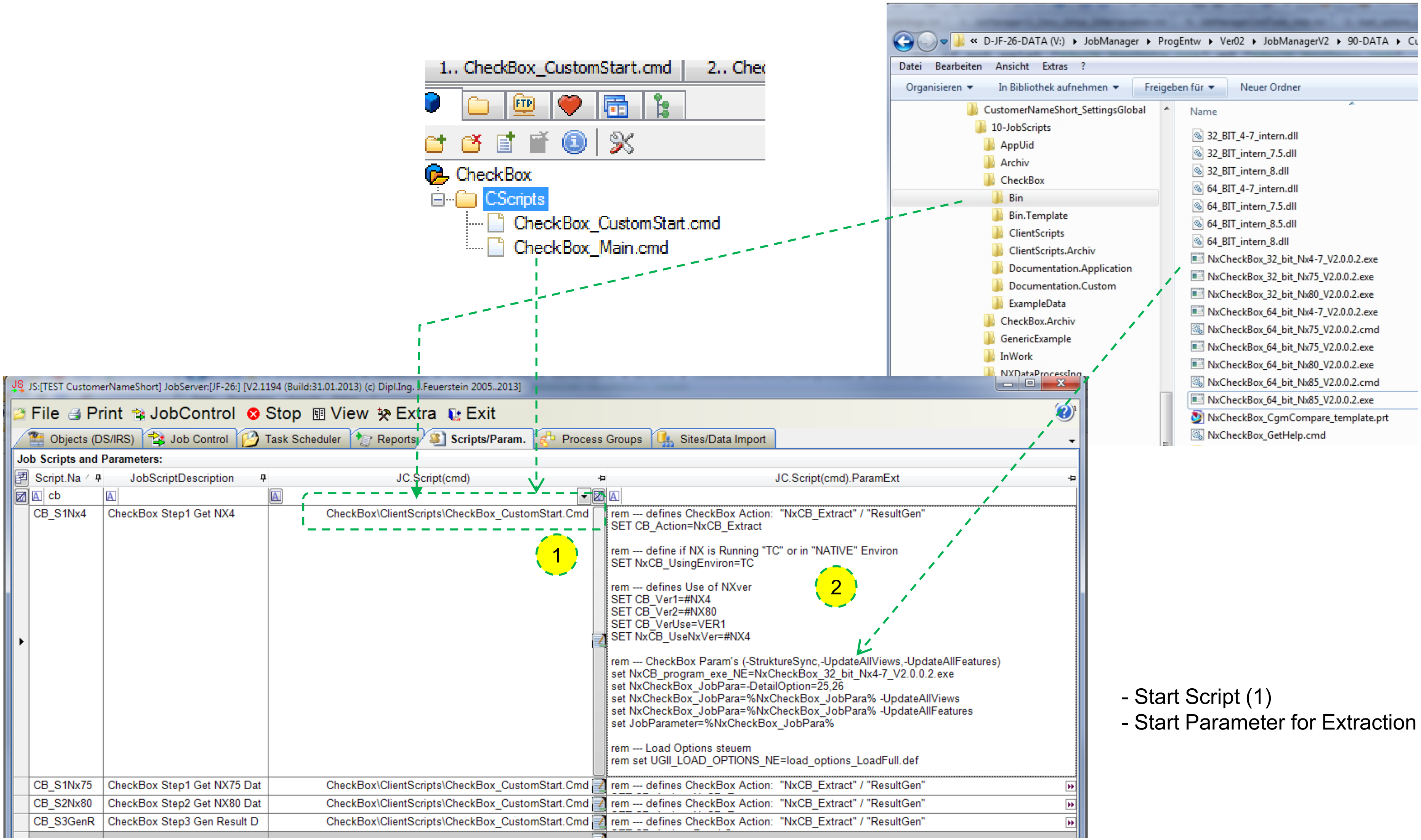
- CB1 → Extract Data with NX version 1 → CheckBox_CustomStart.cmd + Parameters
- CB2 → Extract Data with NX version 2 → CheckBox_CustomStart.cmd + Parameters
- CB3 → Compare extracted CB1 – CB2 Data

Hints:
Thrue CB1 / CB2 Processes CB-Data must be in this way extracted that the extracted CB-Data are comparable. Please check settings for customisation

- TC: Data / TC Root
- TC: Environment’s
- NX: Load Option s
- NX: Customer defaultes → Patternfiles etc.
- NX: Environment’s



JobManager Settings



- Start Script (1)
- Start Parameter for Extraction **(2)**

JobManager CheckBox Script

CheckBox
PLMJobManager

1.. CheckBox_CustomStart.cmd | 2.. Chec

CheckBox
CScripts
CheckBox_CustomStart.cmd
CheckBox_Main.cmd

```
rem #new.: 10.10.2012/J.Fes
rem #ToDo: Setup RootPP_LL defines length off partical path of
rem        CheckBox Path .\12-Data\JobMgrData\#SiteID#\#ItemId#:#RootPP_LL#\#ItemId#\#RevId#\
REM set JobMgrDataOrg_BaseNameSchema_Custom=RootPP_LL=10
set JobMgrDataOrg_BaseNameSchema_Custom=
rem #ToDo: Define  JobMgrDataOrg_Root_DP_Custom  or use default
set JobMgrDataOrg_Root_DP_Custom=#12-Data#\JobMgrData

rem -- #Step: verzweigen in die jeweilige version des CB Vorgangs
if /I "%CB_Action%" equ "NxCB_Extract" (
  if /i "%CB_VerUse%" equ "VER1"  goto :CB_VerUse_Ver1
  if /i "%CB_VerUse%" equ "VER2"  goto :CB_VerUse_Ver2
)
```

```
:CB_VerUse_Ver1
 setlocal
  REM #Doc: Get CbData for Nx Version cur in use Example: Nx2..NX80
  set TcPromtCmd=Unkown please Check settings in:[%0]

  if /i "%JobMgr_Debug%" neq "ON" goto :JumbOver
   Echo #Debug:
   Echo Start excuting: [CB_VerUse_Ver1]
   pause
:JumbOver

  REM #ToDo: set Custom Prompt for CB Data Extract
  if /i "%TcSiteId%" neq "CustomSideNameCur" goto :JumbOver1
   set TcPromtCmd=%UG_SHR_DIR%\ugnx4\env\start_nx4.bat
   set TcPromtCmdOpt=de iman_prompt CustomSideNameCur v910
:JumbOver1

  if /i "%JobMgr_Debug%" neq "ON" goto :JumbOver_Debug
   Echo #Debug........: befor excuting:
   Echo  TcPromtCmd...: [%TcPromtCmd%]
   Echo  TcPromtCmdOpt: [%TcPromtCmdOpt%]
   pause
:JumbOver_Debug

  if not exist "%TcPromtCmd%" goto :TcPromtCmdError
  call :Echo "excuting TcPrompt:[%TcPromtCmd% %TcPromtCmdOpt%]"
  call "%TcPromtCmd%" %TcPromtCmdOpt%

  rem -- #Step: start CheckBox Main to extract Data
  call "%CmdCurRoot_DP%\CheckBox_Main.cmd"
 endlocal
 goto :MyEnd
```

Options parameter view details in: CheckBox_64_bit_Nx85_V2.0.0.2_Help.tx

JC.Script(cmd).ParamExt

```
rem --- defines CheckBox Action: "NxCB_Extract" / "ResultGen"
SET CB_Action=NxCB_Extract

rem --- define if NX is Running "TC" or in "NATIVE" Environ
SET NxCB_UsingEnviron=TC

rem --- defines Use of NXver
SET CB_Ver1=#NX4
SET CB_Ver2=#NX80
SET CB_VerUse=VER1
SET NxCB_UseNxVer=#NX4

rem --- CheckBox Param's (-StruktureSync,-UpdateAllViews,-UpdateAllFeatures)
set NxCB_program_exe_NE=NxCheckBox_32_bit_Nx4-7_V2.0.0.2.exe
set NxCheckBox_JobPara=-DetailOption=25,26
set NxCheckBox_JobPara=%NxCheckBox_JobPara% -UpdateAllViews
set NxCheckBox_JobPara=%NxCheckBox_JobPara% -UpdateAllFeatures
set JobParameter=%NxCheckBox_JobPara%

rem --- Load Options steuern
rem set UGII_LOAD_OPTIONS_NE=load_options_LoadFull.def
```

2.. CheckBox_Main.cmd

```
rem -- #Step: Verzweigen in die erforderliche UnterRoutine CB_Action ----------
if /I "%CB_Action%" neq "NxCB_Extract" goto :NxCB_Extract_StepOver
  call :NxCBox_Extract_UsingEnvironTC
:NxCB_Extract_StepOver
```

```
 rem -- #Step: extrahieren + auflisten der via CB zu verarbeitenden Objecte
```

```
rem -- #Step: Cb NxCB_program_exe_DPNE command erstellen
if defined NxCheckBox_JobPara set JobParameter=%NxCheckBox_JobPara% -ExtractCGM_toDir="%NxCB_CgmData_DP%"
```

```
 rem -- #Step: Move Results into Archiv
:CBMoveCBFilesToCBArchiv
```

```
rem 10.10.2012/J.Fes new
if defined JobMgrDataOrg_BaseNameSchema_Custom set toRun=%toRun% -JobMgrDataOrg_BaseNameSchema "%JobMgrDataOrg_BaseNameSchema_Custom%"
```

Help: \JobManagerV2\03-BinPublic.ClientServer\JobManagerCmdTools_Help.t

Extract Data with NX version 1 / version 2

CheckBox
PLMJobManager

1 Process Step is to extract Data from NX Parts
- Step: Start Extract Data
- Step: Analysing CheckBox extract Process

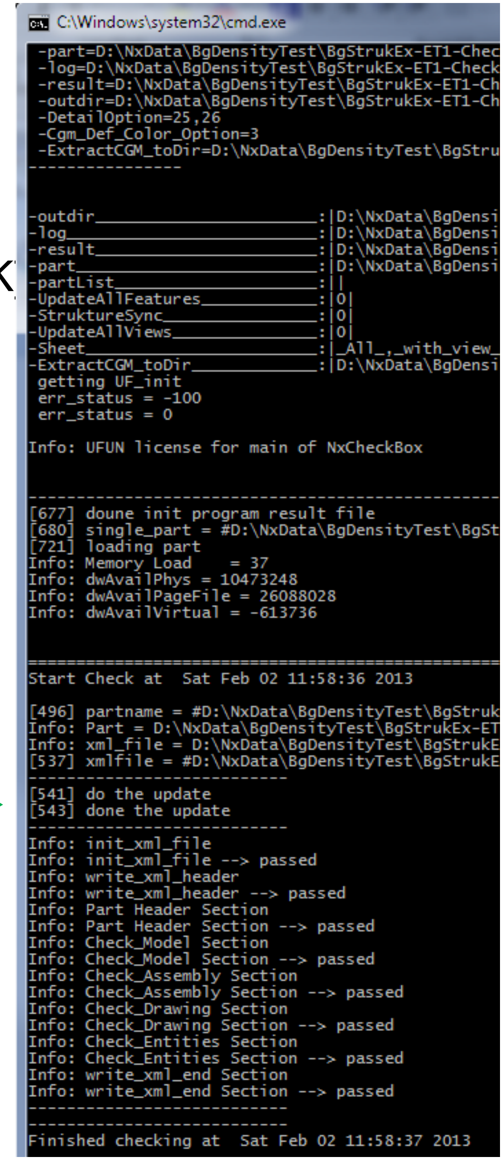
[PL:OK][UF:OK][UD:OK][PH:OK][MD:OK][AS:OK][DR:OK][EN:OK][XML:OK][CGM:O]

[PL:OK] -> Part Load
[UF:OK] -> Update All Feature **(1)**
[UD:OK] -> Update All Drawings
[XML:] -> Open
[CGM:] -> Open

In dieser Folie muss Dokumentiert sein welche Results segemente welchen Inhalt haben. 31.01.2013

Alles in Englisch !!

1



Daten Extraktion

Zusammenfassung der Daten:

Beim extrahieren der Daten werden CB.Log Files ausgewertet und mit den folgenden Teilergebnissen zusammengefasst. Nachfolgend der CheckBox Output und die Zuordnung der CheckBox Extraktion Ergebnisse.

- PL	=	Part load	1
- UF	=	Update all Feature	2
- UD	=	Update Drawing	3
- PH	=	Part Header	4
- MD	=	Model Data	5
- AS	=	Assembly Data	6
- DR	=	Drawing Data	8
- EN	=	Entity	8
- CBXml	=	CB.Data File (xml)	9
- CGM	=	Drawing .cgm Files	10

```
[677] doune init program result file
[680] single_part = #D:\NxData\BgStrukNx75\BgStrukEx-Einzeltei
[721] loading part
Info: Memory Load     = 33
Info: dwAvailPhys = 11109156
Info: dwAvailPageFile = 26648496
Info: dwAvailVirtual = -586564


================================================================
Start Check at   Sat Feb 02 14:49:28 2013

[496] partname = #D:\NxDa 1 BgStrukNx75\BgStrukEx-Einzelteil-0
Info: Part = D:\NxData\Bg  rukNx75\BgStrukEx-Einzelteil-04_dwg
Info: xml_file = D:\NxData\BgStrukNx75\BgStrukEx-Einzelteil-04
[537] xmlfile = #D:\NxData\BgStrukNx75\BgStrukEx-Einzelteil-04
---------------------------
[541] do the update
Update: All Features                    2
Update: All Features ---> passed
Update: Drawing views                   3
Update: Drawing views ---> passed
[543] done the update
---------------------------
Info: init_xml_file
Info: init_xml_file --> passed
Info: write_xml_header
Info: write_xml_header --> passed
Info: Part Header Section                    4
Info: Part Header Section --> passed
Info: Check_Model Section                    5
Info: Check_Model Section --> passed
Info: Check_Assembly Section
Info: Check_Assembly Section --> passed      6
Info: Check_Drawing Section
Info: Check_Drawing Section --> passed       7
Info: Check_Entities Section
Info: Check_Entities Section --> passed      8
Info: write_xml_end Section
Info: write_xml_end Section --> passed       9
---------------------------
CGM: Output (Sheet 1) to [D:\NxData\BgStrukNx75\BgStrukEx-Einz
CGM: Cgm_Def_Color_Option = UF_PLOT_BLACK_ON_WHITE  10
CGM: Cgm_Def_Color_Option = UF_PLOT_BLACK_ON_WHITE --> passed
---------------------------
Finished checking at  Sat Feb 02 14:49:31 2013
```

Die Extractions Ergebnisse werden nach der Daten Extraktion im JobManager übernommen.

NX Versionen auswerten // Mitschrift 19.11.2012 MTU

P.Versions:[TC:91(optional)][NX.F:6.0.2.8][NX.P:8.0.2.2][CB:1.1.1.22]

P.Versions:[TC:91(optinal)][NX.FileVer:6.0.2.8][NX.ProcVer:8.0.2.2][CB.Ver:1.1.1.22]

Ir.Id	0	0.	0	0.	0.P.01 [CB6R]	R8F]	0.CADVersion	0.P.Rf [Refile]	0.P.05 [CB	P.ResultCode	P.ResultMsg	P
YATE23-EPMU8-V06.MAMAA.B0M1K/AA--	Work ...	AP	2	245	D.CB6R.OK	TOL3.ERR		D.RfMc.OK (Rf.Ok->CB8F)	D.CB8F.OK	64;16;8	[PH: OK][MD: 8	0
YATE23-EPMU8-V08.MAMAA.B0VT6/AA--	Work ...	AP	2	241	D.CB6R.OK	TOL3.ERR		D.RfMcDry.WRN (MCS with...	D.CB8F.OK	64	[PH: OK][MD: OK]	0
2332M57P01F004.FHZ01.B2YUZ/-A-FEZ--001	260	AP	3	54	D.CB6R.OK	TOL3.ERR		D.RfMcDry.OK (MCS Dry OK)	D.CB8F.OK	64	[PH: OK][MD: OK]	0
2332M57P01F004.FHZ01.B2YUZ/----	260	AP	3	52	D.CB6R.OK	TOL3.ERR		D.RfMcDry.ERR (MCS Dry E ...	D.CB8F.OK	64	[PH: OK][MD: OK]	0

```
<CheckBoxData>
  <PartHeader>
    <CliName>[@DB/MC-AUTO.MAMAA.B2NQG/AA--/master/]</CliName>
    <PartHistoryNum>42</PartHistoryNum>
    <PartHistory_1>211 14 Sep 12 11:55 Linux x64 yao55ug NX 8.0.2.2 - External User Function</PartHistory_1>
    <PartHistory_2>210 06 Oct 10 19:13 Linux x64 yax0510 NX 6.0.2.8</PartHistory_2>
    <PartHistory_3>209 24 Jul 09 10:03 Linux x64 yao55ug NX 4.0.4.2 (NX Manager refile)</PartHistory_3>
    <PartHistory_4>208 26 Mar 09 10:50 Linux x64 yax0510 NX 4.0.4.2</PartHistory_4>
    <PartHistory_5>207 13 Aug 08 10:17 Linux x64 yax0510 NX 4.0.4.2</PartHistory_5>
```

Working Version = PartHistory_1

Last saved Version

Process Version = PartHistory_1
File Version = PartHistory_2

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<PLMJobManager_CheckBoxData xmlns:xsi="http://www.w3.org
 <ProgramData>
  <ProgramName>NxCheckBox</ProgramName>
  <ProgramRelease>V1.1.1.22 (NX 4-7)</ProgramRelease>
  <BuildDate>(Sep 19 2011)</BuildDate>
  <CustomLicense>unknown</CustomLicense>
 </ProgramData>
```

Beim Extrakt wird die NX.Version aus dem Nx.Syslog file bezogen S.Version kommt aus der Parthistory + ProgramRelease
Beim KompairCB werden die NX.Versionen aus den CheckBox Files bezogen
→ Aktualisierung des Feldes O.SaveVersion nach JobMgr Standard

NX Deviation auswerten // Mitschrift 19.11.2012 MTU

```
Deviation CheckRule Set erstellen          P.Versions:[TC:91(optional)][NX.F:6.0.2.8][NX.P:8.0.2.2][CB:1.1.1.22]
Diese umfasst n frei definierbare Regelsätze für die Interpretation der
Werte.
DeviationRuleSet
 Key: PrezisionQuality: 1  ResultMsg:OK
      CenterOfGraf 0.002
      RefesetVolume 0.001
 Key: PrezisionQuality: 2  ResultMsg:OK:PQ1
      CenterOfGraf 0.005
      RefesetVolume 0.01
 Key: PrezisionQuality: 3  ResultMsg:WRN:PQ3
      CenterOfGraf 0.05
      RefesetVolume 0.05
 Key: PrezisionQuality: 4  ResultMsg:ERR:PQ4
      CenterOfGraf 0.5
      RefesetVolume 0.5
```

⊞ RefsetNames_IgnorList	String[] Array
CentreOfGravity_DeviationMax	0,001
MomentOfInertia_DeviationMax	0,001
Refset_Volume_DeviationMax	0,001
Refset_Feature3D_n_DeviationMax	0
LayerObjects_n_DeviationMax	5
LayerObjects_n_dif_AsErr	False
ObjectsWire_n_DeviationMax	5
ObjectsWire_n_dif_AsErr	False
AliveFeatures_n_DeviationMax	100
TotalFeatures_n_DeviationMax	100
⊟ **03 Assembly Data**	
Assembly_DoCompare	True
AssemblyComponentLevel_DoCompareUntilLevel	1
Matrix_DeviationMax	1E-05

28.11.2018 – Evaluate CBExtract Logfiles

CheckBox
PLMJobManager

```
228 0 = Entity 39955 (Unite - Unable to perform Boolean.). delete = NO, suppress = NO, ignore = NO, display = YES
229 +++NxCheckBox:
230 +++NxCheckBox [2018-11-09 22:21.47]: Error: 670033 in Program: ..\SOURCE_FILES\nxcheckbox_utils.c
231 +++NxCheckBox:
232 +++NxCheckBox [2018-11-09 22:21.47]:        -> in line 2848 (Unable to perform Boolean.)
233 +++NxCheckBox:
234 +++NxCheckBox [2018-11-09 22:21.47]: *---*
235 +++NxCheckBox:
236 +++NxCheckBox [2018-11-09 22:21.47]: Update: All Features ---> passed
```

Rule if extracted CB.xml has been written then CBExtract.log errors are evaluated as WRN

```
278 +++NxCheckBox [2018-11-09 22:21.57]: Info: Check_Entities Section --> passed
279 +++NxCheckBox:
280 +++NxCheckBox [2018-11-09 22:21.57]: Info: write_xml_end Section
281 +++NxCheckBox:
282 +++NxCheckBox [2018-11-09 22:21.57]: Info: write_xml_end Section --> passed
```

Standard Anpassen für Spalten NXSyslog.

Daten Extraktion

Zusammenfassung der Daten:

Die so entstandenen Daten werden zu einem Gesamt Ergebnis im PLMJobManager zusammengeführt. Jedes Ergebnis eines Objektes (Part's) wird mit seinen Teilergebnissen beschrieben.

- PH = Part Header (from XML) 1
- MD = Model Data (from XML) 2
- AS = Assembly Data (from XML) 3
- DR = Drawing Data (from XML) 4
- EN25 = Entity Data Drafting.Text (from XML) 5
- EN26 = Entity Data Dimension (from XML) 6
- DC = Drawing Compare (PPM from Tiff.Diff) 7
- PI = Part Information (from XML) 8

– Ist der Result Code = 0 so sind keine Abweichungen ermittelt worden:

```
[PH:OK] [MD:OK] [AS:OK] [DR:OK] [EN25:OK] [EN26:OK] [DC:OK] [PI:OK]
```

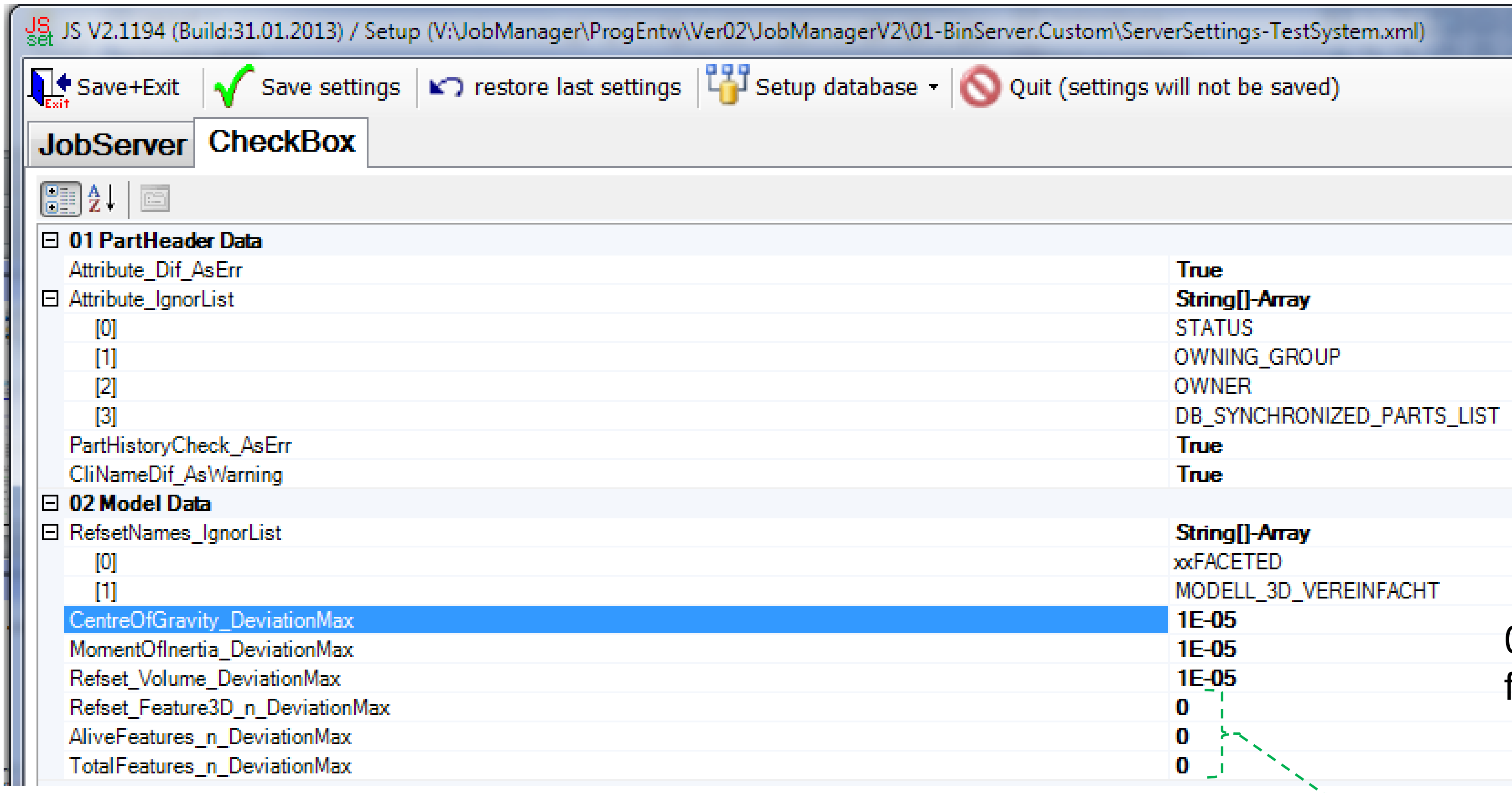
1 2 3 4 5 6 7 8

– Ist der Result Code > 0 so sind Abweichungen ermittelt worden → hier muss eine Prüfung stattfinden:

```
[PH:OK] [MD:ERR:MofIn] [AS:ERR:Comp] [DR:OK] [EN25:OK] [EN26:OK] [DC:OK] [PI:OK]
```

1 2 3 4 5 6 7 8

CB-Settings



0.005 …
festlegen

10-20 testen

CB-Settings

03 Assembly Data	
Assembly_DoCompare	True
AssemblyComponentLevel_DoCompareUntilLevel	1
Matrix_DeviationMax	1E-05
Callout_DoCompare	True
Mating_DoCompare	False
ReferenceComponent_DoCompare	True
RefsetCurr_DoCompare	True
SuppressByExpression_DoCompare	True
SuppressState_DoCompare	True
TranslMatrix_DoCompare	True
Arrangement_DoCompare	False
UG_GeometryNO_DoCompare	False
MemberCount_DoCompare	True
MemberCountDeviationMax	1
MemberCount_Dif_AsErr	False
04 Drawing Data	
ViewPoints_DeviationMax	0,5
ViewOutOfDateStatus_Dif_AsErr	True
ViewAnchorPoint_DoCompair	False
ViewAnchorPointValuesNotListed_AsErr	True
ViewNotes_n_Dif_AsErr	True

0.005 prüfen

MemberCount false
alternativ 10..20 test

MemberCount:

- bedeutet die Anzahl der Objekte in einer Komponente
- Code Details: Given a part occurrence tag or v9 component type as input argument this routine gets the count of members for a given component.

CB-Settings

05 TextSize	
TextOrigin_DeviationMax	**0,5**
TextBoxOrigin_DeviationMax	**0,5**
TextBoxSize_DoCompare	**True**
TextBoxSize_DeviationMax	**0,5**
TextTextSize_DeviationMax	**0,5**
TextTextAngle_DeviationMax	**0,5**
06 Performance	
PerfDataEvaluate	**True**
11 EntitiesType25 (Uf_draft)	
Entity_Type25_UF_draft_TextValueDif_AsErr	**True**
Entity_Type25_UF_draft_AssocEnt_Dif_AsErr	**True**
12 EntitiesType26 (UF_dimension)	
Entity_Type26_UF_dimension_type_TextValueDif_AsErr	**True**
Entity_Type26_AssocEnt_Dif_AsErr	**True**
20 Part Information	
Density_is_0_AsErr	**True**
90 DisabledByDefault	
ViewDependentObj_Dif_AsErr	**False**
LayerObjects_n_DeviationMax	**5**
LayerObjects_n_dif_AsErr	**False**
ObjectsWire_n_DeviationMax	**5**
ObjectsWire_n_dif_AsErr	**False**

Testen

Perf = False da keine systematische Untersuchung bei Standard CheckBox Möglich

Parthistory Check / Redesingn (new 22.10.2013) JobMgr.Issue-1163

CheckBox PLMJobManager

1

```
CheckBox.Data 1:[NX V6.0.2.8]                                           |CheckBox.Data 2:[NX V8.0.3.4]
------------------------------------------------------------------------|--------------------------------------------------------------------
CliName.:@DB/DMS-PATCH-HDV2-07022.MAMAA.BBK14/AA--/master/              |CliName.:@DB/DMS-PATCH-HDV2-07022.MAMAA.BBK14/AA--/master/
PartHis.:~                                                              |PartHis.:248 07 Aug 13 22:20 Linux x64 yao55ug NX 8.0.3.4 - External
PartHis.:~                                                              |PartHis.:247 07 Aug 13 21:35 Linux x64 yao55ug NX 8.0.3.4 (NX Manage
PartHis.:~                                                              |PartHis.:246 07 Aug 13 20:35 Linux x64 yao55ug NX 8.0.3.4 (NX Manage
PartHis.:245 11 May 13 14:23 Linux x64 yao55ug NX 6.0.2.8 - External~|PartHis.:245 07 Aug 13 19:35 Linux x64 yao55ug NX 8.0.3.4 (NX Manage
PartHis.:244 15 Feb 13 10:43 Linux x64 yax2202 NX 6.0.2.8               |PartHis.:~
PartHis.:243 13 Feb 13 11:26 Linux x64 yax2202 NX 6.0.2.8               |PartHis.:~
PartHis.:242 13 Feb 13 11:23 Linux x64 yax2202 NX 6.0.2.8               |PartHis.:~
------------------------------------------------------------------------|--------------------------------------------------------------------
Data extraction info:                                                   |Data extraction info:
NxVer...:NX V6.0[106.0]                                                 |NxVer...:NX V8.0[108.0]
NxCB.Re~:V2.0.1.4 (NX 4-7) Build:(Mar 26 2013)                          |NxCB.Re~:V2.0.1.4 (NX 8) Build:(Mar 26 2013)
Date....:11.05.2013 14:23:22                                            |Date....:07.08.2013 20:20:18
=============================================================================================================================================
```

2

```
CheckBox.Data 1:[NX V6.0.2.8]                                         |CheckBox.Data 2:[NX V8.0.3.4]
----------------------------------------------------------------------|----------------------------------------------------------------------
CliName.:@DB/DMS-PATCH-HDV2-07022.MAMAA.BBK14/AA--/master/            |CliName.:@DB/DMS-PATCH-HDV2-07022.MAMAA.BBK14/AA--/master/
PartHis.:~                                                            |PartHis.:259 07 Aug 13 20:20 Linux x64 yao55ug NX 8.0.3.4 - External ~
PartHis.:~                                                            |PartHis.:258 07 Aug 13 19:35 Linux x64 yao55ug NX 8.0.3.4 (NX Manager~
PartHis.:~                                                            |PartHis.:257 31 Jul 13 18:05 Linux x64 yax2202 NX 8.0.3.4
PartHis.:~                                                            |PartHis.:256 31 Jul 13 17:44 Linux x64 yax2202 NX 8.0.3.4
PartHis.:~                                                            |PartHis.:255 31 Jul 13 17:22 Linux x64 yax2202 NX 8.0.3.4
PartHis.:~                                                            |PartHis.:254 31 Jul 13 17:22 Linux x64 yax2202 NX 8.0.3.4
PartHis.:~                                                            |PartHis.:253 31 Jul 13 17:21 Linux x64 yax2202 NX 8.0.3.4
PartHis.:~                                                            |PartHis.:252 31 Jul 13 17:19 Linux x64 yax2202 NX 8.0.3.4
PartHis.:~                                                            |PartHis.:251 31 Jul 13 17:18 Linux x64 yax2202 NX 8.0.3.4
PartHis.:~                                                            |PartHis.:250 31 Jul 13 17:18 Linux x64 yax2202 NX 8.0.3.4
PartHis.:~                                                            |PartHis.:249 31 Jul 13 17:15 Linux x64 yax2202 NX 8.0.3.4
PartHis.:~                                                            |PartHis.:248 31 Jul 13 17:14 Linux x64 yax2202 NX 8.0.3.4
PartHis.:~                                                            |PartHis.:247 31 Jul 13 16:57 Linux x64 yax2202 NX 8.0.3.4
PartHis.:~                                                            |PartHis.:246 22 Jul 13 13:22 Linux x64 yax2202 NX 8.0.3.4
PartHis.:245 11 May 13 14:23 Linux x64 yao55ug NX 6.0.2.8 - External~|PartHis.:245 22 Jul 13 13:20 Linux x64 yax2202 NX 8.0.3.4
PartHis.:244 15 Feb 13 10:43 Linux x64 yax2202 NX 6.0.2.8             |PartHis.:~
```

3

```
CheckBox.Data 1:[NX V6.0.2.8]                                         |CheckBox.Data 2:[NX V8.0.3.4]
----------------------------------------------------------------------|----------------------------------------------------------------------
CliName.:@DB/DMS-PATCH-HDV2-07022.MAMAA.BBK14/AA--/master/            |CliName.:@DB/DMS-PATCH-HDV2-07022.MAMAA.BBK14/AA--/master/
PartHis.:248 07 Aug 13 21:20 Linux x64 yao55ug NX 6.0.2.8 - External~|
PartHis.:247 11 May 13 15:23 Linux x64 yao55ug NX 6.0.2.8             |PartHis.:247 07 Aug 13 22:20 Linux x64 yao55ug NX 8.0.3.4 - External ~
PartHis.:246 11 May 13 14:23 Linux x64 yao55ug NX 6.0.2.8  <---->     |PartHis.:246 07 Aug 13 21:35 Linux x64 yao55ug NX 8.0.3.4 (NX Manager~
PartHis.:245 11 May 13 13:23 Linux x64 yao55ug NX 6.0.2.8             |PartHis.:245 11 May 13 13:23 Linux x64 yao55ug NX 6.0.2.8
PartHis.:244 15 Feb 13 10:43 Linux x64 yax2202 NX 6.0.2.8             |PartHis.:244 15 Feb 13 10:43 Linux x64 yax2202 NX 6.0.2.8
PartHis.:243 13 Feb 13 11:26 Linux x64 yax2202 NX 6.0.2.8             |PartHis.:243 13 Feb 13 11:26 Linux x64 yax2202 NX 6.0.2.8
PartHis.:242 13 Feb 13 11:23 Linux x64 yax2202 NX 6.0.2.8             |PartHis.:242 13 Feb 13 11:23 Linux x64 yax2202 NX 6.0.2.8
----------------------------------------------------------------------|----------------------------------------------------------------------
```

Parthistory Regeln:
1 Standard: die Parthistory der älteren Version darf nicht höher sein als die der neueren Version
2 Extendet → Regel solange OK wie nur Refiles zwischendurch gemacht wurden !! Refile User soll berücksichtigt sein !!

Beispiel: NX6: 244 -- NX8: 247 → OK (1) da zwischenzeitlich nur refiles gemacht wurden
Beispiel: NX6: 244 -- NX8: 258 → ERR (2) da zwischenzeitlich ein save durch „nicht Refile“ mit Version NX8 gemacht wurde
Beispiel: NX6: 246 -- NX8: 246 → ERR (3) da zwischenzeitlich ein save durch „nicht Refile“ mit Version NX6 gemacht wurde

Parthistory Check / Redesingn (new 22.10.2013) JobMgr.Issue-1163

CheckBox
PLMJobManager

- Analyse Date – Timestamp differnces of 0 min 60 min

1

```
CheckBox.Data 1:[NX V4.0.4.2]                                           |CheckBox.Data 2:[NX V8.0.3.4]
------------------------------------------------------------------------|---------------------------------------------------------------------
CliName.:@DB/041.231.104/C/master/                                      |CliName.:@DB/041.231.104/C/master/
PartHis.:~                                                              |PartHis.:93 12 Nov 13 14:57 NT x64 infodba NX 8.0.3.4 - External User~
PartHis.:92 12 Nov 13 13:44 NT Intel infodba NX 4.0.4.2 - External U~|PartHis.:92 27 Jun 13 12:07 NT x64 infodba NX 8.0.3.4 (NX Manager ref~
PartHis.:91 16 Apr 13 03:33 NT Intel infodba NX 4.0.4.2 (                 is.:91 16 Apr 13 04:33 NT Intel infodba NX 4.0.4.2 (NX Manager r~
PartHis.:90 18 Apr 12 23:47 NT Intel nethh NX 4.0.4.2                  |PartHis.:90 19 Apr 12 00:47 NT Intel nethh NX 4.0.4.2
PartHis.:89 20 Apr 12 10:33 NT Intel nethh NX 4.0.4.2                  |PartHis.:89 20 Apr 12 11:33 NT Intel nethh NX 4.0.4.2
PartHis.:88 20 Apr 12 10:31 NT Intel nethh NX 4.0.4.2                  |PartHis.:88 20 Apr 12 11:31 NT Intel nethh NX 4.0.4.2
PartHis.:87 02 Feb 09 17:00 NT Intel nethh NX 4.0.4.2                  |PartHis.:87 02 Feb 09 17:00 NT Intel nethh NX 4.0.4.2
PartHis.:86 02 Feb 09 10:45 NT Intel sidlerc NX 4.0.4.2                |PartHis.:86 02 Feb 09 10:45 NT Intel sidlerc NX 4.0.4.2
--------------------------------------------------------------------------------------------------------------------------------------------
```

1 Houre difference

0 min difference

See also WhatsNew:
ApplWhatsNew: 2.1200;13.11.2013;J.Fes;CheckBox;Ver.Info;JobMgr.Issue-1163;Change:

Section: Model Data MD

01 Part Header (PH)

02 Model Data (MD):

03 Assembly Data (AS)

04 Drawaing Data (DR)

11 Entities Type25 (Uf_draft) (EN25)

12 Entities Type26 (UF_dimensions) (EN26)

Model Data: New section PrototypeAnalysis / SolidBodys / (New 08.03.2013)

CheckBox
PLMJobManager

Die Sektion PrototypAnalyse soll dazu dienen die SolidBodys des Parts zu Analysieren. Insbesondere soll festgestellt werden ob die 3D Form der in dem Part befindlichen Bodys sich verändert. Überprüft werden kann das auf Basis des Volumens des Schwerpunktes sowie des Massenträgheits Momentes aller sich im Part befindlichen Bodys. Um diese Datensektion unter allen Umständen vergleichen zu können, ist es Notwendig die Daten für CenterOfGravity und MomentsOfInertial mit Density=1 bewerte zu ermitteln.
Die unten stehenden Datenstrukturen beinhalten die Informationen der „SolidBodys“ des aktuellen Parts (=ProtoType).

```
<PrototypeAnalyse>
 <Volume>1000.000000</Volume>
 <VolumeBodies_n>1</VolumeBodies_n>
 <CentreOfGravity>
  <X>6.000000</X>
  <Y>15.666667</Y>
  <Z>5.000000</Z>
 </CentreOfGravity>
 <MomentOfInertia>
  <X>200000.000000</X>
  <Y>200000.000000</Y>
  <Z>600000.000000</Z>
 </MomentOfInertia>
 <CentreOfGravityN1>
  <X>5.000000</X>
  <Y>11.666667</Y>
  <Z>5.000000</Z>
 </CentreOfGravityN1>
 <MomentOfInertiaN1>
  <X>600000.000000</X>
  <Y>200000.000000</Y>
  <Z>600000.000000</Z>
 </MomentOfInertiaN1>
</PrototypeAnalyse>
```

Volume + Body Informationen

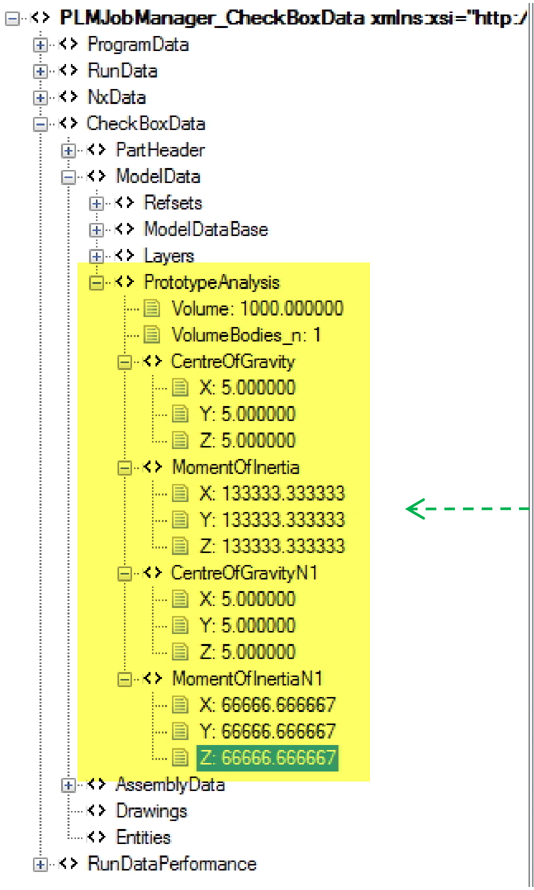
CenterOfGravity / MomentOfInertia berechnet mit den Density der Bodys

CenterOfGravityN1 / MomentOfInertiaN1 berechnet mit Density = 1

Hinweis diese Daten für **CenterOfGravityN1 / MomentOfInertiaN1** werden nur dann ermittelt wenn die Umgebungsvariable NXCB_ANALYZE_NORMALIZED_MASS_PROPS=TRUE gesetzt wurde und der Schalter –save **!! NICHT !!** verwendet wird.

Model Data: New section PrototypeAnalysis / ModelBodys / (New 08.03.2013)

Doku Beispiel Daten PrototypeAnalyse-2013-03-10.xml




```xml
      </Layer>
      <Layer>
        <Name>1</Name>
        <Objects_n>1</Objects_n>
      </Layer>
    </Layers>
    <PrototypeAnalysis>
     <Volume>1000.000000</Volume>
       <VolumeBodies_n>1</VolumeBodies_n>
       <CentreOfGravity>
        <X>5.000000</X>
        <Y>5.000000</Y>
        <Z>5.000000</Z>
       </CentreOfGravity>
       <MomentOfInertia>
        <X>99133333.333333</X>
        <Y>133333.333333</Y>
        <Z>133333.333333</Z>
       </MomentOfInertia>
       <CentreOfGravityN1>
        <X>5.000000</X>
        <Y>5.000000</Y>
        <Z>5.000000</Z>
       </CentreOfGravityN1>
       <MomentOfInertiaN1>
        <X>66666.666667</X>
        <Y>66666.666667</Y>
        <Z>66666.666667</Z>
       </MomentOfInertiaN1>
    </PrototypeAnalysis>
  </ModelData>
```


Hinweis diese Daten für **CenterOfGravityN1 / MomentOfInertiaN1** werden nur dann ermittelt wenn die Umgebungsvariable NXCB_ANALYZE_NORMALIZED_MASS_PROPS=TRUE gesetzt wurde und der Schalter –save **!! NICHT !!** verwendet wird.

Model Data: Comparing Moment Of Inertial

1.. 063.254.060_C_master_063.254.060_C_#NX40.xml | 2.. 063.254.060

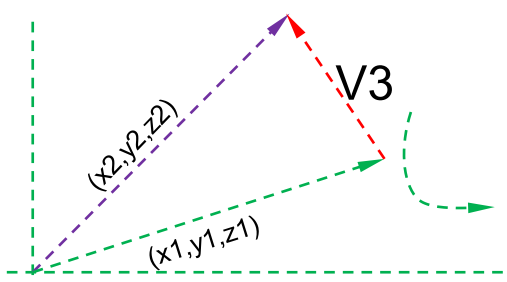

```
<PrototypeAnalysis>
 <Volume>66.154073</Volume>
   <VolumeBodies_n>2</VolumeBodies_n>
   <CentreOfGravity>
    <X>7.962376</X>
    <Y>-0.477634</Y>
    <Z>-0.035367</Z>
   </CentreOfGravity>
   <MomentOfInertia>
    <X>725.038237</X>
    <Y>107310.208076</Y>
    <Z>107917.626759</Z>
   </MomentOfInertia>
   <CentreOfGravityN1>
    <X>7.962376</X>
    <Y>-0.477634</Y>
    <Z>-0.035367</Z>
   </CentreOfGravityN1>
   <MomentOfInertiaN1>
    <X>92.361559</X>
    <Y>13670.090201</Y>
    <Z>13747.468377</Z>
   </MomentOfInertiaN1>
</PrototypeAnalysis>
```


1.. 063.254.060_C_master_063.254.060_C_#NX80.xml | 2.. 063.254.060_


```
<PrototypeAnalysis>
 <Volume>66.153643</Volume>
   <VolumeBodies_n>2</VolumeBodies_n>
   <CentreOfGravity>
    <X>7.962274</X>
    <Y>-0.477724</Y>
    <Z>-0.035367</Z>
   </CentreOfGravity>
   <MomentOfInertia>
    <X>725.453765</X>
    <Y>107308.159678</Y>
    <Z>107915.993818</Z>
   </MomentOfInertia>
   <CentreOfGravityN1>
    <X>7.962274</X>
    <Y>-0.477724</Y>
    <Z>-0.035367</Z>
   </CentreOfGravityN1>
   <MomentOfInertiaN1>
    <X>92.414492</X>
    <Y>13669.829258</Y>
    <Z>13747.260359</Z>
   </MomentOfInertiaN1>
</PrototypeAnalysis>
```


Quantifizierung der Abweichung:
Siehe nächste Seite

02 Model Data [MD]	
SolidBodiesCheck_Methode	M1_PartSoli
Volume_DeviationMax	0,001
CentreOfGravity_DeviationMax	0,001
Moment Of Inertia Result Rules	(Auflistung)

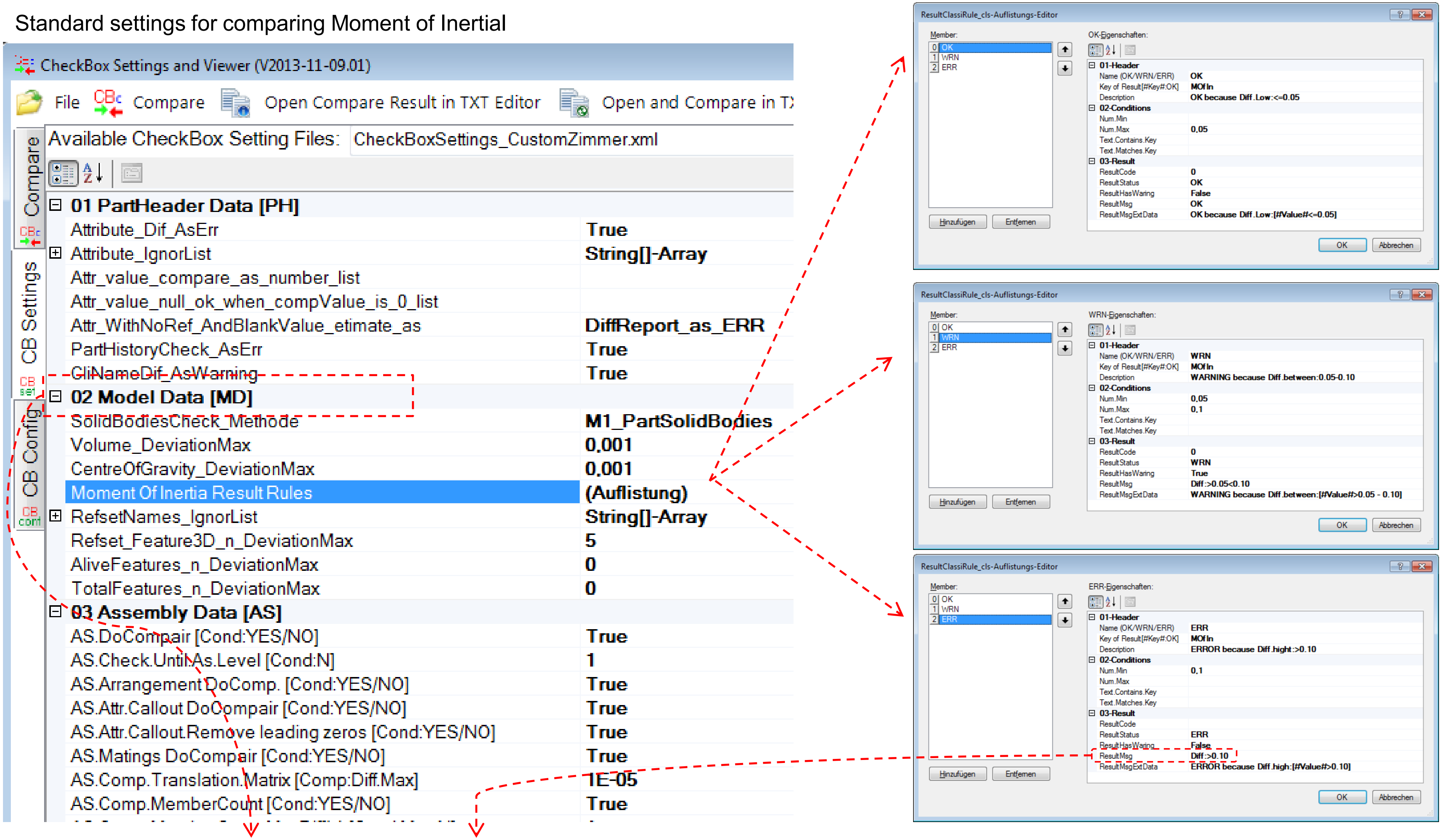


$$V3(länge) = \sqrt{(x1 - x2)^2 + (y1 - y2)^2 + (z1 - z2)^2} <= 0{,}05$$

Ist die ermittelte Vektorlänge V3<=0,05 so kann davon ausgegangen werden das die Körper gleich sind.
Diese Vergleichsmethode wurde von Herrn Dipl.Mat Hakim Asim erarbeitet . Vielen Dank für die unterstützung.

Model Data: Comparing Moment Of Inertial

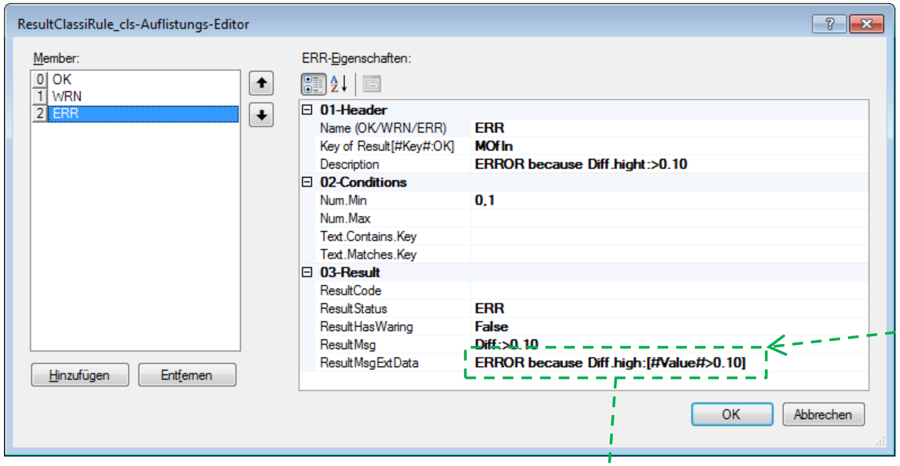
- Standard settings for comparing Moment of Inertial



P.Res.Msg...............: [PH:OK][**MD**:ERR:SolBod.MOfInN1.**Diff:>0.10**,SolBod.Vol,SuppFeat_n,WRN:SolBod.MOfIn.Diff:>0.10][AS:OK][DR:OK][EN25:OK][EN26:OK][DC:T

Model Data: Comparing Moment Of Inertial

- Defining Rules and View of CB Report in CB Manager

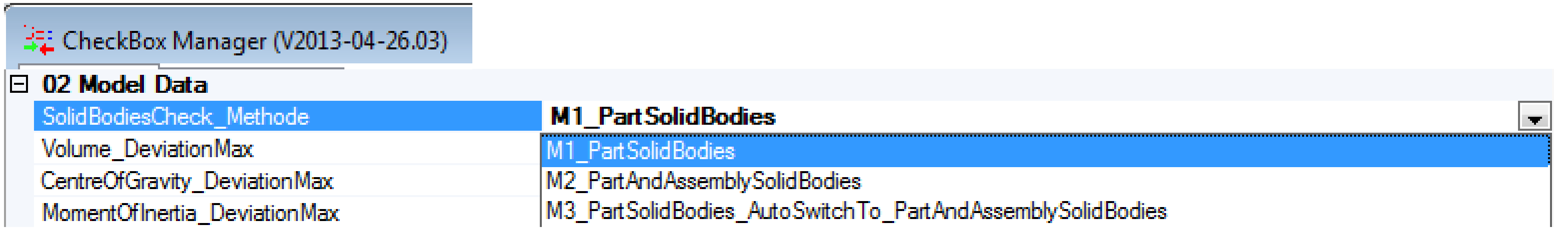


#Value# is replaced by the calculated value

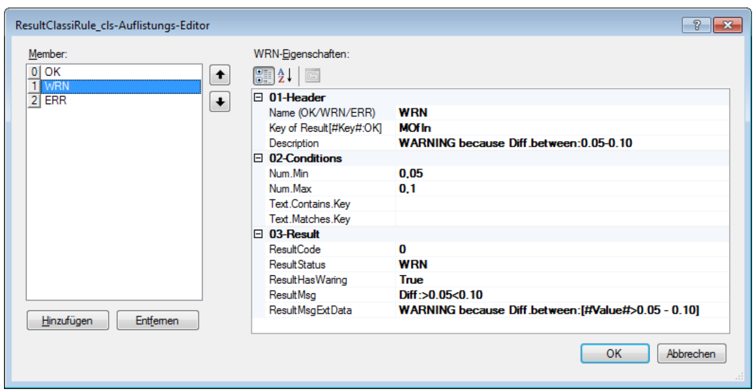
```
++Error:MD.........: [SolidBodies.MomentOfInertiaN1 (!!--serious diff.--!! because Value is Normalized with Density=1)] Val.Dif:[Diff:>0.10]
 |-> Tce9/NX4.0.4.~: X:[22644.962001] Y:[111517.609812] Z:[98002.678204]
 |-> Tc83/NX8.0.3.~: X:[22644.989709] Y:[111517.750361] Z:[98002.802145]
 |-> Differnce.....: ERROR because Diff.high:[0.189428>0.10]
                     3D Dist:0.189428 of P1:[X:[22644.962001] Y:[111517.609812] Z:[98002.678204]] <-> P2:[X:[22644.989709] Y:[111517.750361] Z:[98002.802145]]
```

ModelData: Comparing Moment Of Inertial Settings

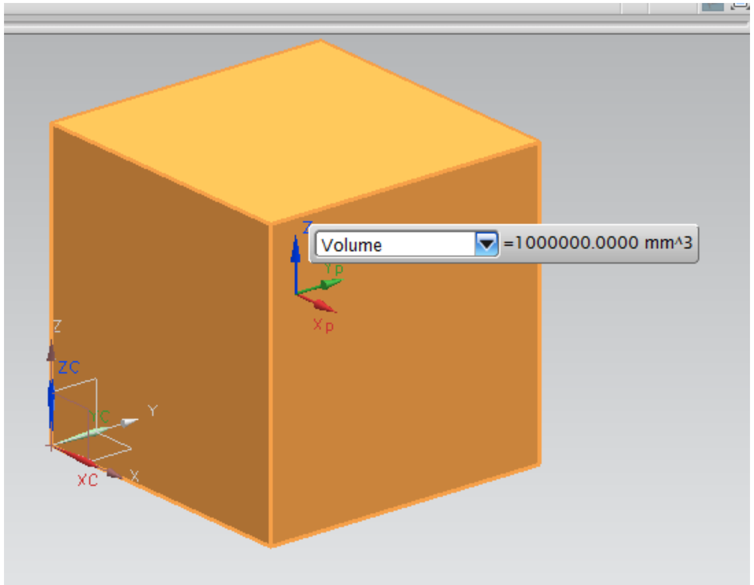
Einstellungen: Siehe Einstellungen:



SolidBodiesCheck_Methode
Defines validation methode for analysing '3D Geometrical Massproperties' consitensy
#Doc: if using Methode: 'M1_PartSolidBodies' then Part SolidBodys is used for analysing 3D Body consistensy (see: CB.XML:CheckBoxData.ModelData.PrototypeAnalysis). [Default]
#Doc: if using Methode: 'M2_PartAndAssemblySolidBodies' then Part SolidBodys and Assemblys SolidBodys is used for analysing 3D Body consistensy. (see: CB.XML:CheckBoxData.ModelData.Refsets)
#Doc: if using Methode: 'M3_PartSolidBodies_AutoSwitchTo_PartAndAssemblySolidBodies' first use 'M1_PartSolidBodies' Methode. If no 'PrototypeAnalysis' Data found then use 'M2_PartAndAssemblySolidBodies' Methode (#Hint: this Option is desinged to analyse Data extraced bevor:25.03.2013)
(New: 2.1195;08.03.2013;J.Fes)



ModelData: Volume Unit‘s




```
<Name>MODEL</Name>
 <Volume>1000.000000</Volume>
 <VolumeBodies_n>1</VolumeBodies_n>
 <Feature3D_n>1</Feature3D_n>
 <CentreOfGravity>
   <X>5.000000</X>
   <Y>5.000000</Y>
   <Z>5.000000</Z>
 </CentreOfGravity>
 <MomentOfInertia>
   <X>522042.666667</X>
   <Y>522042.666667</Y>
   <Z>522042.666667</Z>
 </MomentOfInertia>
 <ObjectsComps_n>0</ObjectsComps_n>
 <ObjectsWire_n>1</ObjectsWire_n>
```


Unit cm^3

Value Diff Example:

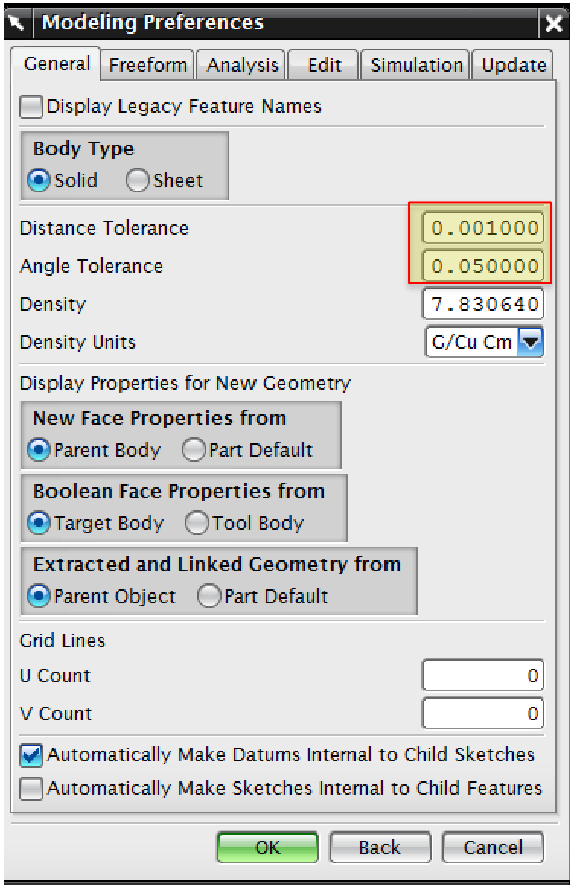
	Volumen	Block length 3rd Root(Volume) $\sqrt[3]{Volume}$
SolidBody:	122166126,30 mm3	496,19 mm
Diff absolut:	10,33 mm3	2,18 mm
Diff percent:	0,0000085%	0,4389461%

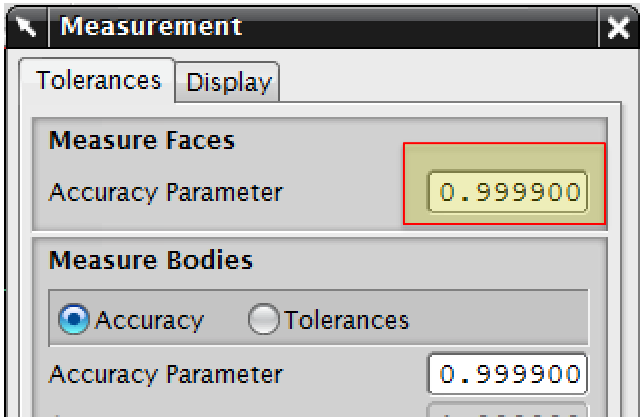
#New: 02.04.2015 / J:Fes

Setup Part Precision / Tolerance

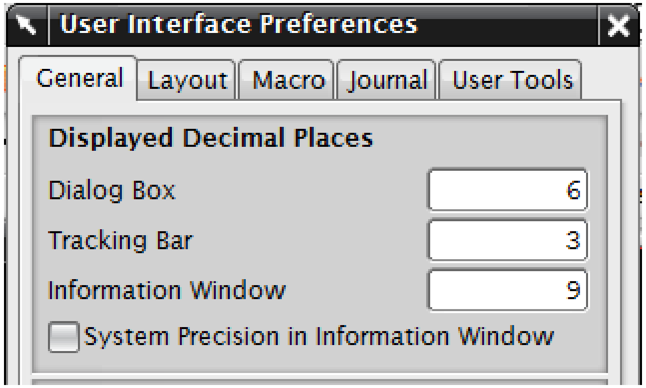
Open Part → Start Modeling → Preferences → Modelling → Distance Tolerance …

Saved in Part YES





Saved in Part YES



Test Values in Part

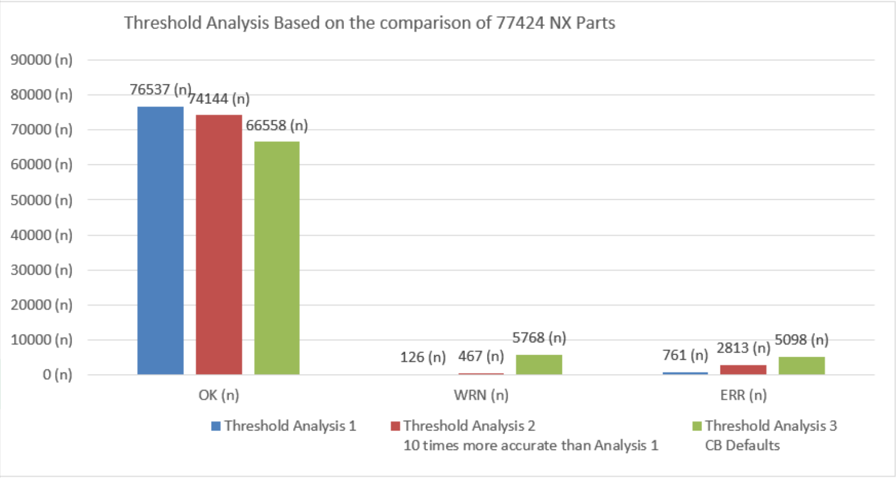
#New: 26.08.2015

Example: Threshold Analysis based on NX Prototype Solid Bodys between

CheckBox
PLMJobManager

NX8.5.3 MP11/TC10.1.7 <--> NX12.0.2 MP8/TC10.1.7

Threshold Analysis based on NX Prototype Solid Bodys between NX8.5.3 MP11/TC10.1.7 <--> NX12.0.2 MP8/TC10.1.7



		Threshold Analysis 1	Threshold Analysis 2 10 times more accurate than Analysis 1	Threshold Analysis 3 CB Defaults
	Vol Abs OK	0,5000 mm^3	0,0500 mm^3	0,0010 mm^3
	Vol Abs WRN	0,5 - 1 mm^3	0,05 - 0,1 mm^3	0,001 - 0,01 mm^3
	Vol ABS ERR	**1,0000 mm^3**	**0,1000 mm^3**	**0,0100 mm^3**
	Vol Perc OK	0,001 %	0,0001 %	0,0050 %
	Vol Perc WRN	0,001 - 0,01 %	0,0001 - 0,001 %	0,005 - 0,05 %
	Vol Perc. ERR	**0,010 %**	**0,0010 %**	**0,0500 %**
Absolute values:	OK (n)	76537 (n)	74144 (n)	66558 (n)
	WRN (n)	126 (n)	467 (n)	5768 (n)
	ERR (n)	**761 (n)**	**2813 (n)**	**5098 (n)**
	Sum:	**77424**	**77424**	**77424**
Percentage values:	OK (%)	98,85%	95,76%	85,97%
	WRN (%)	0,16%	0,60%	7,45%
	ERR (%)	**0,98%**	**3,63%**	**6,58%**

IR.Id	O.Name	O.Type	Vol (NX08.5.3 MP11)	Vol (NX12.0.2 MP8)	Vol Dif (Abs)	Vol Dif (%)	Threshold Analysis 1	Threshold Analysis 2	Threshold Analysis 3
00_40-6050-014-01/0E	00_40-6050-014-01/0E	UGMAST	48166,086	48158,569	7,517	0,015606	ERR:Perc	ERR:Perc	ERR:Perc
00-5907-986-25/00	00-5907-986-25/00	UGMAST	9615,217	9615,217	0	0	OK	OK	OK
25-4001-442-00/0A	25-4001-442-00/0A	UGMAST	16941,536	16941,536	0	0	OK	OK	OK
00-9975-996-05/0A	00-9975-996-05/0A	UGMAST	9239,896	9239,896	0	0	OK	OK	OK

Die Funktionen der Check-Box: „Überprüfung von Baugruppen“ Settings

- Component
  - File: D:\UGCache\ug0000585792.prt
  - Handle: RMug0000585790.prt O0000177b000000d8
  - InstanceHandle: RMug0000585790.prt O00001779000000d8
  - SuppressState: 0
  - SuppressByExpression
  - ReferenceComponent
  - UG_Geometry
  - RefsetCurr: 3_D_ZEICHNUNG
  - InstanceName: UG0000585792
  - ComponentLevel: 1
  - Callout
  - MemberCount: 3
  - ComponentArrangement
    - UsedArrangement: Arrangement 1
  - Mating
    - IsMated: 1
    - MatingName: UG0000585792->UG0000585823
    - MatingStatus: 0
  - Matrix
    - X1: 1.000000
    - Y1: 0.000000
    - Z1: 0.000000
    - X2: 0.000000
    - Y2: 1.000000
    - Z2: 0.000000
    - X3: 0.000000
    - Y3: 0.000000
    - Z3: 1.000000
    - originX: -126.495489
    - originY: 3.899307
    - originZ: -4.750000

03 Assembly Data	
Assembly_DoCompare	**True**
AssemblyComponentLevel_DoCompareUntilLevel	**1**
Matrix_DeviationMax	**1E-05**
Callout_DoCompare	**True**
Mating_DoCompare	**False**
ReferenceComponent_DoCompare	**True**
RefsetCurr_DoCompare	**True**
SuppressByExpression_DoCompare	**True**
SuppressState_DoCompare	**True**
TranslMatrix_DoCompare	**True**
Arrangement_DoCompare	**True**
UG_GeometryNO_DoCompare	**True**
MemberCount_DoCompare	**True**
MemberCountDeviationMax	**1**
MemberCount_Dif_AsErr	**False**

CheckBox: Components.Component.ParentInstanceHandle (Neu 08.03.2013)

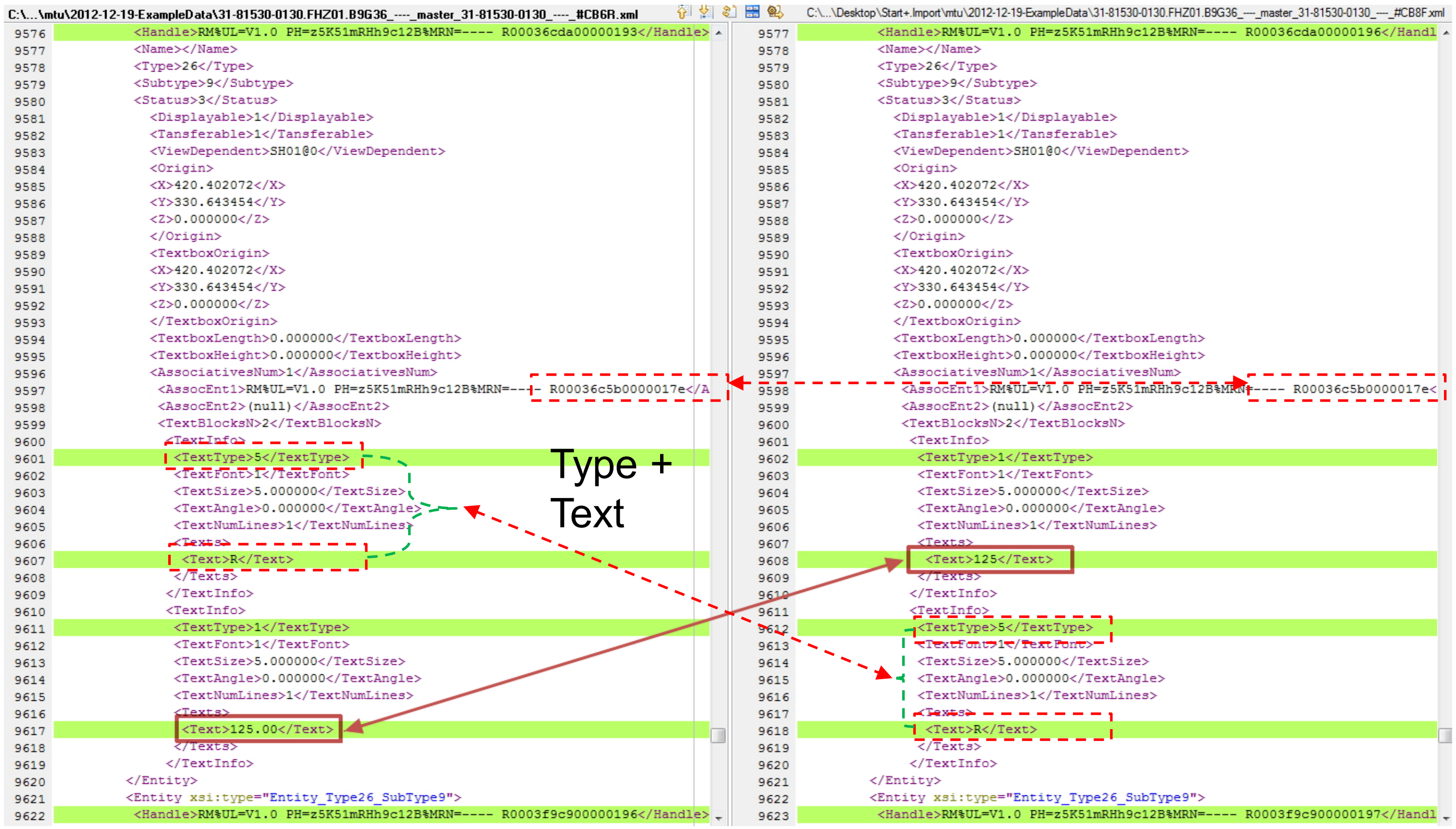
Doku zu Beispiel Datei CheckBoxExample_PrototypeAnalyse-2013-03-10.xml

```xml
<Components>
 <Component>
  <File>D:\NxData\BgDensityTestCheckV21\SpDensityTestCheckV20-Model.prt</File>
  <Handle>RMApDensityTestCheckV20-Model.prt 00000003d00000023</Handle>
  <InstanceHandle>RMApDensityTestCheckV20-Model.prt 00000002c00000023</InstanceHandle>

  <!-- Start: #New Data: ParentInstanceHandle -->
  <ParentInstanceHandle>00000002c00000023</ParentInstanceHandle>
  <!-- End..: #New Data: ParentInstanceHandle -->

  <SuppressState>0</SuppressState>
  <SuppressByExpression></SuppressByExpression>
  <ReferenceComponent></ReferenceComponent>
  <UG_Geometry></UG_Geometry>
  <RefsetCurr>Empty</RefsetCurr>
  <InstanceName>SPDENSITYTESTCHECKV20-MODEL</InstanceName>
  <ComponentLevel>2</ComponentLevel>

  <Callout></Callout>
  <MemberCount>0</MemberCount>
  <ComponentArrangement></ComponentArrangement>
  <Matrix>
   <X1>1.000000</X1>
   <Y1>0.000000</Y1>
   <Z1>0.000000</Z1>
   <X2>0.000000</X2>
   <Y2>1.000000</Y2>
   <Z2>0.000000</Z2>
   <X3>0.000000</X3>
   <Y3>0.000000</Y3>
   <Z3>1.000000</Z3>
   <originX>0.000000</originX>
   <originY>100.000000</originY>
   <originZ>0.000000</originZ>
  </Matrix>
 </Component>
</Components>
```

Dokumentation Objekte: Text Compair of Entity 25 (Drafting) / 26 (Dimension)

CheckBox PLMJobManager

Daten Auszug:




```
<Handle>RM$UL=V1.0 PH=z5K51mRHh9c12B$MRN=---- R00036cda00000193</Handle>
<Name></Name>
<Type>26</Type>
<Subtype>9</Subtype>
<Status>3</Status>
  <Displayable>1</Displayable>
  <Tansferable>1</Tansferable>
  <ViewDependent>SH01@0</ViewDependent>
  <Origin>
  <X>420.402072</X>
  <Y>330.643454</Y>
  <Z>0.000000</Z>
  </Origin>
  <TextboxOrigin>
  <X>420.402072</X>
  <Y>330.643454</Y>
  <Z>0.000000</Z>
  </TextboxOrigin>
  <TextboxLength>0.000000</TextboxLength>
  <TextboxHeight>0.000000</TextboxHeight>
  <AssociativesNum>1</AssociativesNum>
   <AssocEnt1>RM$UL=V1.0 PH=z5K51mRHh9c12B$MRN=---- R00036c5b0000017e</A
   <AssocEnt2>(null)</AssocEnt2>
   <TextBlocksN>2</TextBlocksN>
    <TextInfo>
     <TextType>5</TextType>
     <TextFont>1</TextFont>
     <TextSize>5.000000</TextSize>
     <TextAngle>0.000000</TextAngle>
     <TextNumLines>1</TextNumLines>
     <Texts>
      <Text>R</Text>
     </Texts>
    </TextInfo>
    <TextInfo>
     <TextType>1</TextType>
     <TextFont>1</TextFont>
     <TextSize>5.000000</TextSize>
     <TextAngle>0.000000</TextAngle>
     <TextNumLines>1</TextNumLines>
     <Texts>
      <Text>125.00</Text>
     </Texts>
    </TextInfo>
</Entity>
<Entity xsi:type="Entity_Type26_SubType9">
 <Handle>RM$UL=V1.0 PH=z5K51mRHh9c12B$MRN=---- R0003f9c900000196</Handle>
```

```
<Handle>RM$UL=V1.0 PH=z5K51mRHh9c12B$MRN=---- R00036cda00000196</Handl
<Name></Name>
<Type>26</Type>
<Subtype>9</Subtype>
<Status>3</Status>
  <Displayable>1</Displayable>
  <Tansferable>1</Tansferable>
  <ViewDependent>SH01@0</ViewDependent>
  <Origin>
  <X>420.402072</X>
  <Y>330.643454</Y>
  <Z>0.000000</Z>
  </Origin>
  <TextboxOrigin>
  <X>420.402072</X>
  <Y>330.643454</Y>
  <Z>0.000000</Z>
  </TextboxOrigin>
  <TextboxLength>0.000000</TextboxLength>
  <TextboxHeight>0.000000</TextboxHeight>
  <AssociativesNum>1</AssociativesNum>
   <AssocEnt1>RM$UL=V1.0 PH=z5K51mRHh9c12B$MRN=---- R00036c5b0000017e<
   <AssocEnt2>(null)</AssocEnt2>
   <TextBlocksN>2</TextBlocksN>
    <TextInfo>
     <TextType>1</TextType>
     <TextFont>1</TextFont>
     <TextSize>5.000000</TextSize>
     <TextAngle>0.000000</TextAngle>
     <TextNumLines>1</TextNumLines>
     <Texts>
      <Text>125</Text>
     </Texts>
    </TextInfo>
    <TextInfo>
     <TextType>5</TextType>
     <TextFont>1</TextFont>
     <TextSize>5.000000</TextSize>
     <TextAngle>0.000000</TextAngle>
     <TextNumLines>1</TextNumLines>
     <Texts>
      <Text>R</Text>
     </Texts>
    </TextInfo>
</Entity>
<Entity xsi:type="Entity_Type26_SubType9">
 <Handle>RM$UL=V1.0 PH=z5K51mRHh9c12B$MRN=---- R0003f9c900000197</Handl
```


Klärung wie soll die Analyse erfolgen:

Auswertung mit String ergibt "125.00" <> "125"   = Abweichung

Auswertung mit String ergibt Cdbl(„125.00“) = Cdbl („125“) = keine Abweichung

Neu 23.01.2013 J.Fes

Dokumentation Objekte: Auswertung Entity 25 / 26

Quellcode Auszug:

```
' ApplWhatsNew: 2.688;23.09.2010;J.Fes;CheckBox;Ver.Info;"es werden bei Entity_Type26 nur die Entity ausgewertet die den Status = 3 haben."
If e1_26.Status = "3" And e1_26.ViewDependent <> "" Then
```

Daten Auszug:


```
</Entity>
<Entity xsi:type="Entity_Type26_SubType5">
 <Handle>RM%UL=V1.0 PH=DtB17Xywh9c12B%MRN=AA-- R0006f77500000101</
 <Name></Name>
 <Type>26</Type>
 <Subtype>5</Subtype>
 <Status>2</Status>
   <Displayable>1</Displayable>
   <Tansferable>1</Tansferable>
   <ViewDependent></ViewDependent>
   <Origin>
   <X>2.513459</X>
   <Y>-0.000000</Y>
   <Z>14.457843</Z>
   </Origin>
   <TextboxOrigin>
   <X>2.513459</X>
   <Y>-0.000000</Y>
   <Z>14.457843</Z>
   </TextboxOrigin>
   <TextboxLength>0.000000</TextboxLength>
   <TextboxHeight>0.000000</TextboxHeight>
   <AssociativesNum>2</AssociativesNum>
    <AssocEnt1>RM%UL=V1.0 PH=DtB17Xywh9c12B%MRN=AA-- R0006f76c0000
    <AssocEnt2>(null)</AssocEnt2>
    <TextBlocksN>1</TextBlocksN>
     <TextInfo>
      <TextType>1</TextType>
      <TextFont>1</TextFont>
      <TextSize>0.150000</TextSize>
      <TextAngle>0.000000</TextAngle>
      <TextNumLines>1</TextNumLines>
      <Texts>
       <Text>&lt;XA@p165&gt;</Text>
      </Texts>
     </TextInfo>
</Entity>
```

```
</Entity>
<Entity xsi:type="Entity_Type26_SubType5">
 <Handle>RM%UL=V1.0 PH=DtB17Xywh9c12B%MRN=AA-- R0006f77500000101<
 <Name></Name>
 <Type>26</Type>
 <Subtype>5</Subtype>
 <Status>2</Status>
   <Displayable>1</Displayable>
   <Tansferable>1</Tansferable>
   <ViewDependent></ViewDependent>
   <Origin>
   <X>2.513459</X>
   <Y>-0.000000</Y>
   <Z>14.457843</Z>
   </Origin>
   <TextboxOrigin>
   <X>2.513459</X>
   <Y>-0.000000</Y>
   <Z>14.457843</Z>
   </TextboxOrigin>
   <TextboxLength>0.000000</TextboxLength>
   <TextboxHeight>0.000000</TextboxHeight>
   <AssociativesNum>2</AssociativesNum>
    <AssocEnt1>RM%UL=V1.0 PH=DtB17Xywh9c12B%MRN=AA-- R0006f76c000
    <AssocEnt2>(null)</AssocEnt2>
    <TextBlocksN>1</TextBlocksN>
     <TextInfo>
      <TextType>1</TextType>
      <TextFont>1</TextFont>
      <TextSize>0.150000</TextSize>
      <TextAngle>0.000000</TextAngle>
      <TextNumLines>1</TextNumLines>
      <Texts>
       <Text>0.984</Text>
      </Texts>
     </TextInfo>
</Entity>
```


Info: aktuell (23.01.2013) werden nur Entity 25/26 Objekte ausgewertet die folgende Daten haben:
Status=3 und ViewDependent<>““

Neu 23.01.2013 J.Fes

Text Type assignment Entity_Type25 // UF_drafting

CheckBox
PLMJobManager

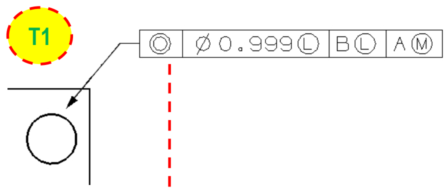
T1

Text Zeile 1
Text Zeile 2


```xml
<Entity xsi:type="Entity_Type25_SubType1">
 <Handle>RMBgStrukEx-Einzelteil-04_dwg1.prt R00008ead0000002b</Handle>
 <Name></Name>
 <Type>25</Type>
 <Subtype>1</Subtype>
 <Status>3</Status>
   <Displayable>1</Displayable>
   <Tansferable>1</Tansferable>
   <ViewDependent>Sheet 1@0</ViewDependent>
   <Origin>
   <X>75.977730</X>
   <Y>43.122115</Y>
   <Z>0.000000</Z>
   </Origin>
   <TextboxOrigin>
   <X>75.977730</X>
   <Y>43.122115</Y>
   <Z>0.000000</Z>
   </TextboxOrigin>
   <TextboxLength>0.000000</TextboxLength>
   <TextboxHeight>0.000000</TextboxHeight>
   <AssociativesNum>0</AssociativesNum>
    <TextBlocksN>1</TextBlocksN>
     <TextInfo>
      <TextType>1</TextType>
      <TextFont>1</TextFont>
      <TextSize>3.500000</TextSize>
      <TextAngle>0.000000</TextAngle>
      <TextNumLines>2</TextNumLines>
      <Texts>
       <Text>Text Zeile 1</Text>
       <Text>&lt;F2&gt;&lt;C2.250&gt;Text Zeile 2&lt;C&gt;&lt;F&gt;</Text>
      </Texts>
     </TextInfo>
</Entity>
```


T1

Text Type assignment Entity_Type25 // UF_drafting




```xml
<Entity xsi:type="Entity_Type25_SubType4">
 <Handle>RMBgStrukEx-Einzelteil-04_dwg1.prt R0000b4e80000002d</Handle>
 <Name></Name>
 <Type>25</Type>
 <Subtype>4</Subtype>
 <Status>3</Status>
   <Displayable>1</Displayable>
   <Tansferable>1</Tansferable>
   <ViewDependent>Sheet 3@0</ViewDependent>
   <Origin>
   <X>234.666180</X>
   <Y>217.442702</Y>
   <Z>0.000000</Z>
   </Origin>
   <TextboxOrigin>
   <X>234.666180</X>
   <Y>217.442702</Y>
   <Z>0.000000</Z>
   </TextboxOrigin>
   <TextboxLength>0.000000</TextboxLength>
   <TextboxHeight>0.000000</TextboxHeight>
   <AssociativesNum>1</AssociativesNum>
    <AssocEnt1>(null)</AssocEnt1>
    <AssocEnt2>(null)</AssocEnt2>
    <TextBlocksN>1</TextBlocksN>
     <TextInfo>
      <TextType>1</TextType>
      <TextFont>1</TextFont>
      <TextSize>3.500000</TextSize>
      <TextAngle>0.000000</TextAngle>
      <TextNumLines>1</TextNumLines>
      <Texts>
       <Text>&lt;&#38;70&gt;&lt;+&gt;&lt;&#38;11&gt;&lt;+&gt;&lt;O&gt;0.999&lt
      </Texts>
     </TextInfo>
</Entity>
```

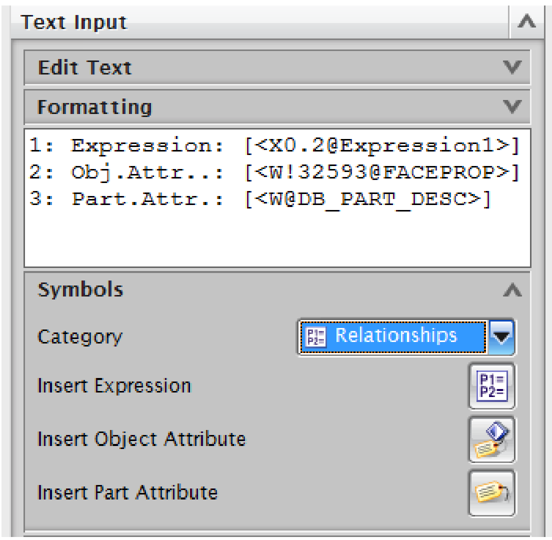

T1

Text Examples containing relationships to: Expression // Obj.Attr // Part.Attr.

Out Parsing

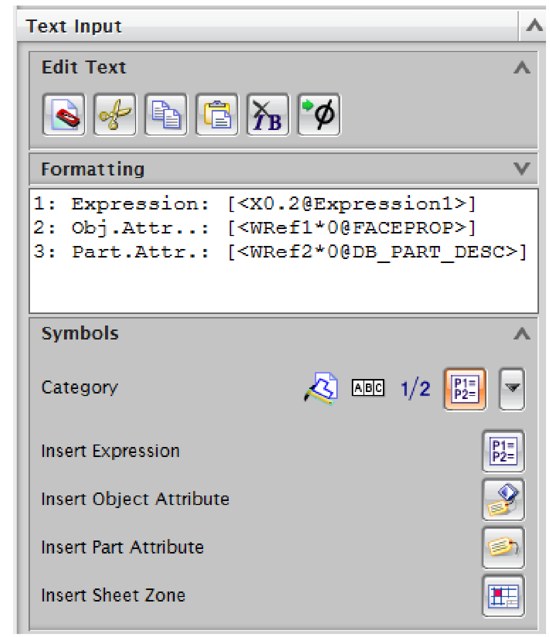
Format until NX 7.5:
1: Expression: [<X0.2@Expression1>]
2: Obj.Attr..: [<W!32586@FACEPROP>]
3: Part.Attr.: [<W@DB_PART_DESC>]

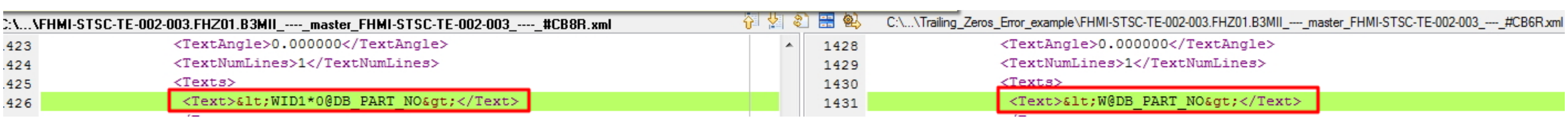
Format starting NX 8.0
1: Expression: [<X0.2@Expression1>]
2: Obj.Attr..: [<WRef1*0@FACEPROP>]
3: Part.Attr.: [<WRef2*0@DB_PART_DESC>]



Display on Drawing:

1: Expression: [100.00]
2: Obj.Attr..: [Value Face Property]
3: Part.Attr.: [CB Example]





#New: 01.03.2013 J.Fes

Auswertung Texte mit Releationen <WID1*0@?VWLETTER> #New: 12.04.2013

CheckBox
PLMJobManager

Auswertung:

```
++Error:EN25.......: [Text Values changed.] Val.Dif:[Is not equal]
 |-> Object........: Type:[25] Subtype:[1] Desc:[UF_draft_note_subtype] Name:[] Handle:[RM%UL=V1.0 PH=gA0swqYTAuf0aA AUID=w5dFTuyPAuf0aA R000006c800000070]
 |                   Origin....:[X:[122,116439] Y:[67,186431] Z:[0,000000] ]
 |                   Location..:[Sheet:DRAW1@0]
 |                   Text.Value:[TextInfo-1:(Texts:['Schnitt <C1.4286><W!11846@VWLETTER>-<W!11846@VWLETTER>']/Type:[1]/Font:[2]/Size:[3,5]/Angle:[,00 degree])]
 |-> NX V4.0.4.2...: Original Text:['Schnitt <C1.4286><W!11846@VWLETTER>-<W!11846@VWLETTER>'] -> */* Entire Texts:['Schnitt <C1.4286><W!11846@VWLETTER>-<W!11846@VWLETTER>']
 |-> NX V8.0.3.4...: Original Text:['Schnitt <C1.4286><WID1*0@?VWLETTER>']                    -> */* Entire Texts:['Schnitt <C1.4286><WID1*0@VWLETTER>']
```

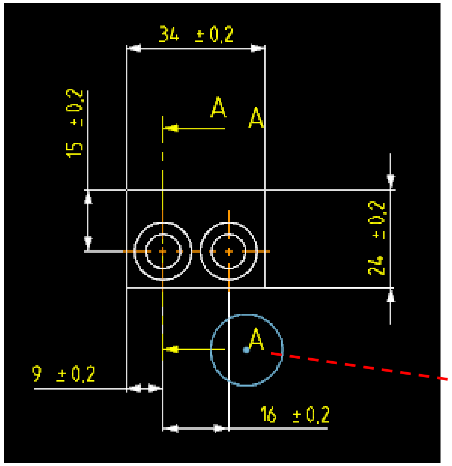
Tritt eine Textrelation mit @? Auf so ist das als kritisch zu werten da es ein Hinweis auf verlorengegangene Relationen ist. <WID1*0@?VWLETTER>

Erweiterung der Text Daten Extraktion auf Ausgewertete Texte #New: 12.10.2014

Erläuterung:
In den verschiedenen NX Versionen werden Texte die Relationen besitzen mit unterschiedlichen Syntax ausgegeben. In der Auswertung ist jedoch nur relevant welcher Textinhalt in der Zeichnung wiedergegeben wird. Aus diesem Grund sollen in den CB.xml files auch die ausgewerteten Texte extrahiert werden.

Beispiel:

Daten in der Zeichnung:



Ausgabe der Extrahierten Daten im CB.xml Files:

Daten im CB.dif Report:

```
++Error:EN25.......: [Text Values changed.] Val.Dif:[Is not equal]
 |-> Object........: Type:[25] Subtype:[1] Desc:[UF_draft_note_subtype] Name:[] Handle:[RM%UL=V1.0 PH=RUhdEel_QS4FxA AUID=R9tdEel_QS4FxA R000007770000000a]
 |                   Origin....:[X:[154.697905] Y:[190.164775] Z:[0.000000] ]
 |                   Location..:[Sheet:A4ENG_NEW@0]
 |                   Text.Value:[TextInfo-1:(Texts:['<W!18303@SX_SEG_END_LETTER_ATTR>']/Type:[1]/Font:[4]/Size:[5]/Angle:[.00 degree])]
 |-> NX V7.5.5.4...: Original Text:['<W!18303@SX_SEG_END_LETTER_ATTR>'] -> */* Entire Texts:['<W!18303@SX_SEG_END_LETTER_ATTR>']
 |-> NX V9.0.2.5...: Original Text:['<W&ID5*0@VWLETTER_DISP>']          -> */* Entire Texts:['<W&ID5*0@VWLETTER_DISP>']
```

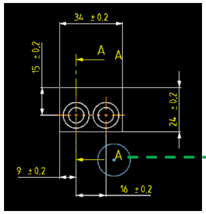
Erweiterung der Text Daten Extraktion auf Ausgewertete Texte #New: 12.10.2014

Vorschlag:

Erweiterung der Ausgabe Text Daten via Datatag **„TextsEvaluatedValue“**

Aktuelle Ausgabe:


```
<Entity xsi:type="Entity_Type25_SubType1">
 <Handle>RM%UL=V1.0 PH=RUhdEel_QS4FxA AUID=R9tdEel_QS4FxA R000007770000000a</Handle>
 <Name></Name>
 <Type>25</Type>
 <Subtype>1</Subtype>
 <Status>3</Status>
   <Displayable>1</Displayable>
   <Tansferable>1</Tansferable>
   <ViewDependent>A4ENG_NEW@0</ViewDependent>
   <Origin>
   <X>154.697905</X>
   <Y>190.164775</Y>
   <Z>0.000000</Z>
   </Origin>
   <TextboxOrigin>
   <X>154.697905</X>
   <Y>190.164775</Y>
   <Z>0.000000</Z>
   </TextboxOrigin>
   <TextboxLength>0.000000</TextboxLength>
   <TextboxHeight>0.000000</TextboxHeight>
   <AssociativesNum>0</AssociativesNum>
    <TextBlocksN>1</TextBlocksN>
     <TextInfo>
      <TextType>1</TextType>
      <TextFont>4</TextFont>
      <TextSize>5.000000</TextSize>
      <TextAngle>0.000000</TextAngle>
      <TextNumLines>1</TextNumLines>
      <Texts>
       <Text>&lt;W!18303@SX_SEG_END_LETTER_ATTR&gt;</Text>
      </Texts>
     </TextInfo>
</Entity>
```

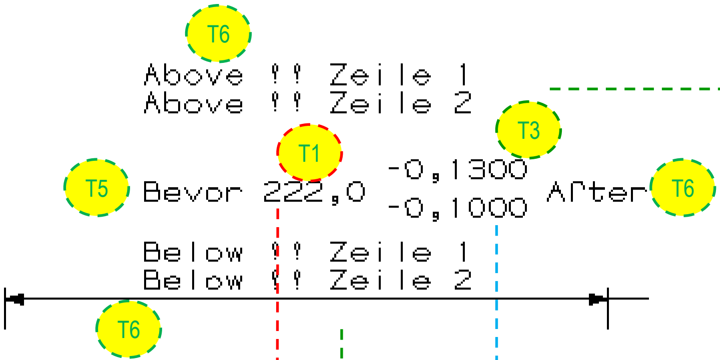



Neue erweiterte Ausgabe:


```
<Entity xsi:type="Entity_Type25_SubType1">
 <Handle>RM%UL=V1.0 PH=RUhdEel_QS4FxA AUID=R9tdEel_QS4FxA R000007770000000a</Handle>
 <Name></Name>
 <Type>25</Type>
 <Subtype>1</Subtype>
 <Status>3</Status>
   <Displayable>1</Displayable>
   <Tansferable>1</Tansferable>
   <ViewDependent>A4ENG_NEW@0</ViewDependent>
   <Origin>
   <X>154.697905</X>
   <Y>190.164775</Y>
   <Z>0.000000</Z>
   </Origin>
   <TextboxOrigin>
   <X>154.697905</X>
   <Y>190.164775</Y>
   <Z>0.000000</Z>
   </TextboxOrigin>
   <TextboxLength>0.000000</TextboxLength>
   <TextboxHeight>0.000000</TextboxHeight>
   <AssociativesNum>0</AssociativesNum>
    <TextBlocksN>1</TextBlocksN>
     <TextInfo>
      <TextType>1</TextType>
      <TextFont>4</TextFont>
      <TextSize>5.000000</TextSize>
      <TextAngle>0.000000</TextAngle>
      <TextNumLines>1</TextNumLines>
      <Texts>
       <Text>&lt;W!18303@SX_SEG_END_LETTER_ATTR&gt;</Text>
      </Texts>
      <TextsEvaluatedValue>
       <Text>A</Text>
      </TextsEvaluatedValue>
     </TextInfo>
</Entity>
```


New Text Data

Text Type assignment Entity_Type26 // UF_dim*

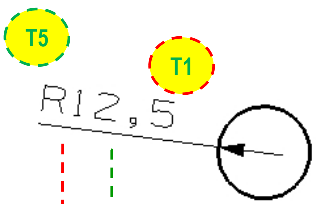



```
        <Entity xsi:type="Entity_Type26_SubType1">
         <Handle>RMBgStrukEx-Einzelteil-04_dwg1.prt R0000b3c30
         <Name></Name>
         <Type>26</Type>
         <Subtype>1</Subtype>
         <Status>3</Status>
              </Texts>
             </TextInfo>
             <TextInfo>
Typ6          <TextType>6</TextType>
              <TextFont>1</TextFont>
              <TextSize>3.500000</TextSize>
              <TextAngle>0.000000</TextAngle>
              <TextNumLines>3</TextNumLines>
              <Texts>
               <Text>Above !! Zeile 1</Text>
               <Text>Above !! Zeile 2</Text>
               <Text></Text>
              </Texts>
             </TextInfo>
             <TextInfo>
Typ6          <TextType>6</TextType>
              <TextFont>1</TextFont>
              <TextSize>3.500000</TextSize>
              <TextAngle>0.000000</TextAngle>
              <TextNumLines>2</TextNumLines>
              <Texts>
               <Text>Below !! Zeile 1</Text>
               <Text>Below !! Zeile 2</Text>
              </Texts>
             </TextInfo>
             <TextInfo>
 Typ1 Dim     <TextType>1</TextType>
              <TextFont>1</TextFont>
              <TextSize>3.500000</TextSize>
              <TextAngle>0.000000</TextAngle>
              <TextNumLines>1</TextNumLines>
              <Texts>
               <Text>222,0</Text>
              </Texts>
             </TextInfo>
             <TextInfo>
 Typ3 Tol     <TextType>3</TextType>
              <TextFont>1</TextFont>
              <TextSize>3.500000</TextSize>
              <TextAngle>0.000000</TextAngle>
              <TextNumLines>1</TextNumLines>
              <Texts>
               <Text>&lt;T-0,1300!-0,1000&gt;</Text>
              </Texts>
```


on TextType 3 = Tolerances
T-0,1300!-0,1000
divide in
-0,1300
-0,1000

Text Type assignment Entity_Type26 // UF_dim*

CheckBox
PLMJobManager




```xml
<Entity xsi:type="Entity_Type26_SubType9">
  <Handle>RMBgStrukEx-Einzelteil-04_dwg1.prt R0000aaeb0000002b</Handle>
  <Name></Name>
  <Type>26</Type>
  <Subtype>9</Subtype>
  <Status>3</Status>
    <Displayable>1</Displayable>
    <Tansferable>1</Tansferable>
    <ViewDependent>Sheet 1@0</ViewDependent>
    <Origin>
    <X>244.080546</X>
    <Y>241.332898</Y>
    <Z>0.000000</Z>
    </Origin>
    <TextboxOrigin>
    <X>244.080546</X>
    <Y>241.332898</Y>
    <Z>0.000000</Z>
    </TextboxOrigin>
    <TextboxLength>0.000000</TextboxLength>
    <TextboxHeight>0.000000</TextboxHeight>
    <AssociativesNum>1</AssociativesNum>
     <AssocEnt1>RMBgStrukEx-Einzelteil-04_dwg1.prt 00000030b00000022</AssocEnt1>
     <AssocEnt2>(null)</AssocEnt2>
     <TextBlocksN>2</TextBlocksN>
      <TextInfo>
       <TextType>1</TextType>
       <TextFont>1</TextFont>
       <TextSize>3.500000</TextSize>
       <TextAngle>0.561993</TextAngle>
       <TextNumLines>1</TextNumLines>
       <Texts>
        <Text>12,5</Text>
       </Texts>
      </TextInfo>
      <TextInfo>
       <TextType>5</TextType>
       <TextFont>1</TextFont>
       <TextSize>3.500000</TextSize>
       <TextAngle>0.561993</TextAngle>
       <TextNumLines>1</TextNumLines>
       <Texts>
        <Text>R</Text>
       </Texts>
      </TextInfo>
</Entity>
```

Auswerten der Ergebnisse

No	Part Type SP/AP	Section: - PH:4 - MD:8 - AS:16 - DR:32 - EN:64 -Pef: 512	Error Values *Msg:Err*#ErrValue#*	Desctription	Search Example:
	AP	AS:16	Ref.nf:AsObj	Assembly reference component not found	*AS:16*Err:*Ref.nf:AsObj*
	SP+AP	MD:8	Ref.nf:RefSets	Part ReferenceSet Not found	*MD:8*Err:*Ref.nf:RefSets*
	AP	AS:16	Callout	Callout changed	
	AP	AS:16	CompArrUsedArr		
			Ref.nf:AsOb		
			Transl.Matrix		

Ablage der CB-Daten im CB Archiv (neu 18.08.2012)

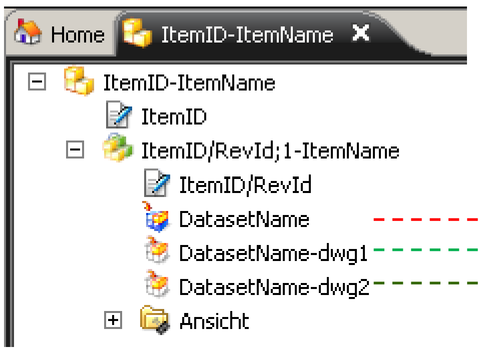
CheckBox PLMJobManager

Neu 18.8.2012

Im nachfolgenden wird beschrieben nach welchem Schema die Extrahierten CheckBox Daten im Filesystem abgelegt werden:

Es gelten die folgenden Syntaxregeln:
Verzeichnis : .\CBData\#TcSiteId#\#ItemId:5#\#ItemId#\#RevId#\
TC.Dataset.. : @DB/ItemId/RevId/Datasetype/DatasetName
CB.XML…… : ItemID_RevId_DatasetType_DatasetName_#ExtractName.xml
CB.CGM…… : ItemID_RevId_DatasetType_DatasetName_SheetName_#ExtractName.cgm
Hinweis: via Option: -CBDataOrg_BaseNameSchema CBRootPP_LL=n.Chars (neu 16.10.2012)
kann die Länge von .\CBData\#TcSiteId#**#ItemId:n.chars# gesteuert werden Option in Script CheckBox_CustomStart.cmd eintr.**

Daten in TC

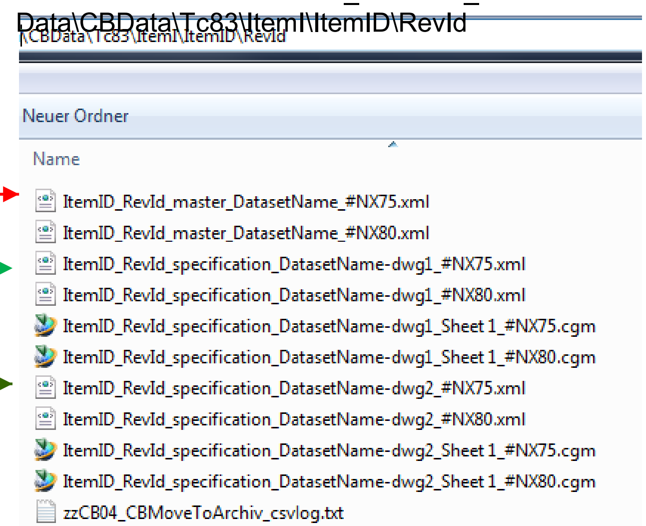


Daten im JobMgr

Ir.Id	O.Name	O.CliName	O.Type
ItemID/RevId	DatasetName	@DB/ItemID/RevId/master/DatasetName	UGMASTER
ItemID/RevId	DatasetName-dwg1	@DB/ItemID/RevId/specification/DatasetName-dwg1	UGPART
ItemID/RevId	DatasetName-dwg2	@DB/ItemID/RevId/specification/DatasetName-dwg2	UGPART

CB Daten auf dem Filesystem nach Extraktion der Daten aus dem PDM-System

JobManagerV2\90-DATA\CustomerNameShort_WorkInst_TEST\12-Data\CBData\Tc83\ItemI\ItemID\RevId



Die Funktionen der CheckBox: „Überprüfung des 3D-Modells“

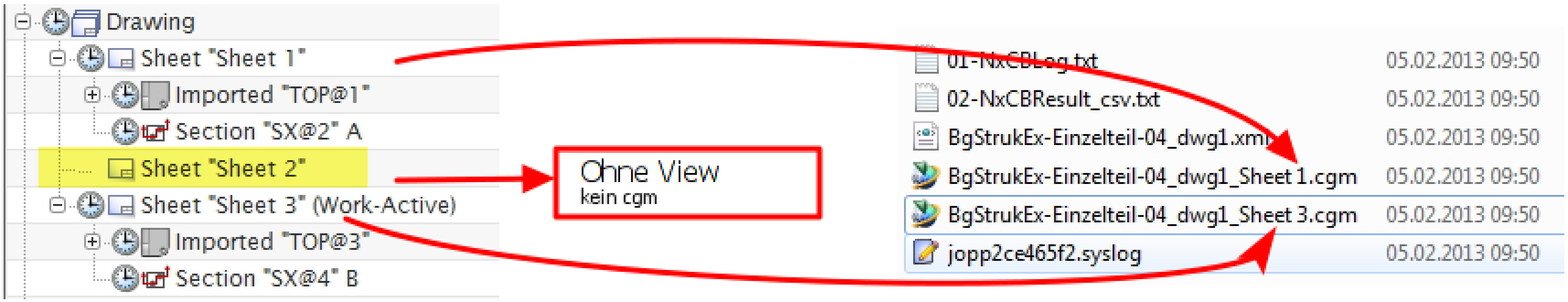
- Refset
  - Name: Entire Part
  - Volume: 1342.584642
  - VolumeBodies_n: 2
  - Feature3D_n: 9
  - CentreOfGravity
    - X: 10.078155
    - Y: 7.560351
    - Z: 1.238954
  - MomentOfInertia
    - X: 815346.315993
    - Y: 1455367.113393
    - Z: 2220782.513485
- Refset
  - Name: Empty
- Refset
  - Name: DATEN
- Refset
  - Name: MODELL
  - Volume: 713.792321
  - VolumeBodies_n: 1
  - Feature3D_n: 7
  - CentreOfGravity
    - X: 9.838840
    - Y: 7.598786
    - Z: 1.358694
  - MomentOfInertia
    - X: 437509.699663
    - Y: 748163.879613
    - Z: 1153312.767159
  - ObjectsComps_n: 0
  - ObjectsWire_n: 4

Add New 3.7.2012

Anz. Verb. Componenten die zum Refset gehören

Anz. 2D Wire Objeke je Refset
Hinweis: ab NX7.5 gibt es hier Abweichungen
da die Leightweigth Objekte jetzt die
ObjectsWire_n beinhalten.

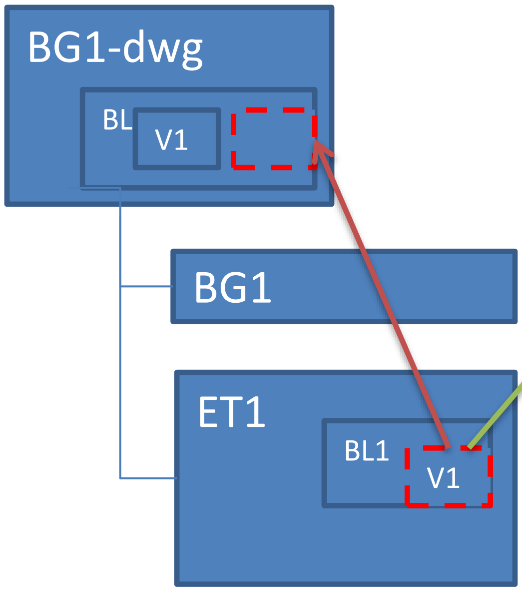
CGM File Erzeugung (5.2.2013)



Steuerung erfolgt über den Parameter -Sheet=_ALL_,_with_view_

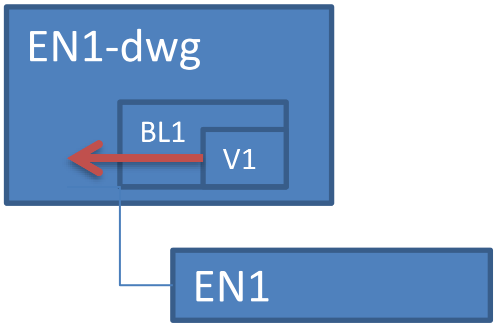
```
-Sheet=_All_,_with_view_ -> bewirkt dass alle Zeichnungen mit views verarbeitet werden.
                            Sind in einer Zeichnung keine Views vorhanden,
                            dann wird diese Zeichnung übersprungen.
-Sheet=_All_             -> verarbeitet alle Zeichnungen
-Sheet=Z1                -> verarbeitet nur Zeichnungen mit Namen Z1
-Sheet=Z                 -> nimmt alle Zeichnung die ein Z im Namen enthalten
```

Referenz Views - Ansicht (7.2.2013)



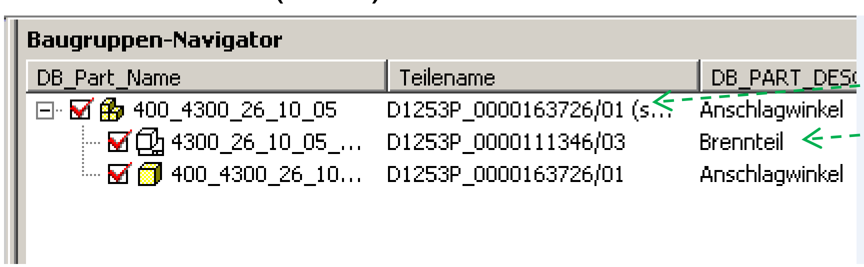
Info: von BG1
EN1 wird bez. als
Refernzobjekt

Beispiel klären bei HDW
durch K.S + S.G



Einzelteil mit Master/Model

NX4 Ansicht (ANT)

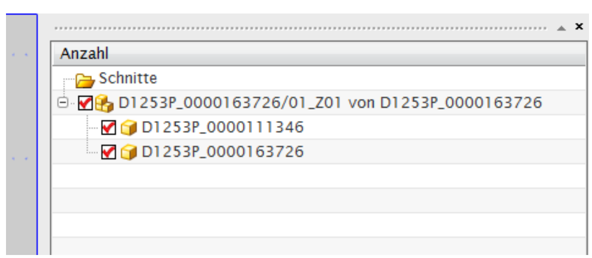


Baugruppen-Navigator

DB_Part_Name	Teilename	DB_PART_DESC
400_4300_26_10_05	D1253P_0000163726/01 (s...	Anschlagwinkel
4300_26_10_05_...	D1253P_0000111346/03	Brennteil
400_4300_26_10...	D1253P_0000163726/01	Anschlagwinkel

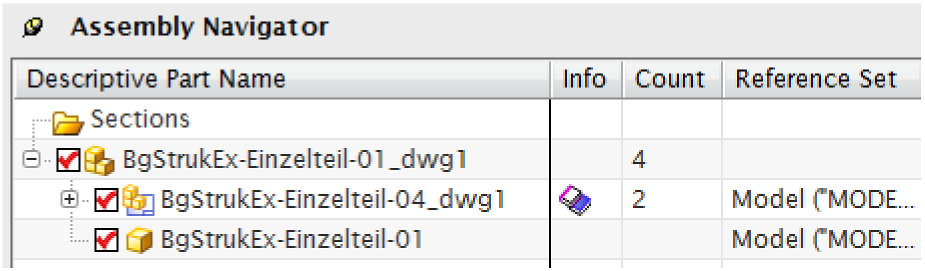
UGPART = Spec
View aus einer Datei
UGMASTER

NX8 Ansicht (ANT)

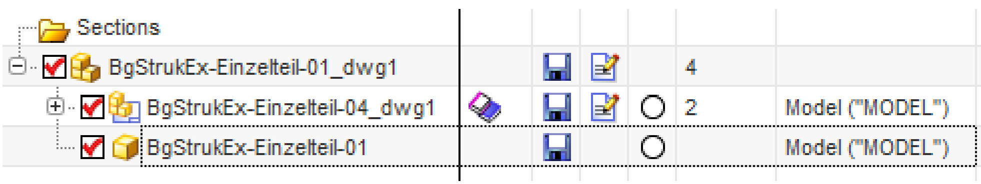


Referenz Views - Ansicht (10.02.2013)

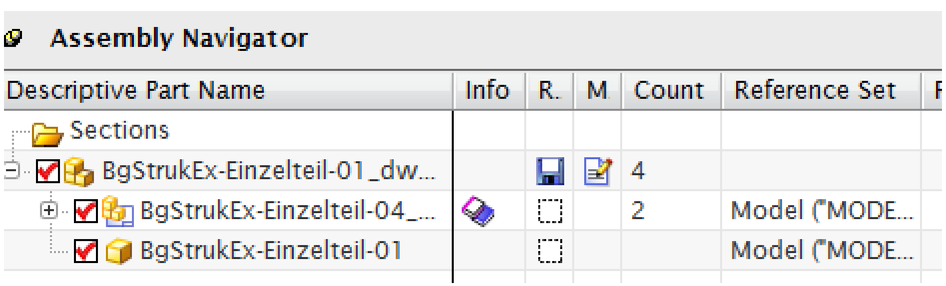
NX7.5 Ansicht (ANT)



NX8.0 Ansicht (ANT)



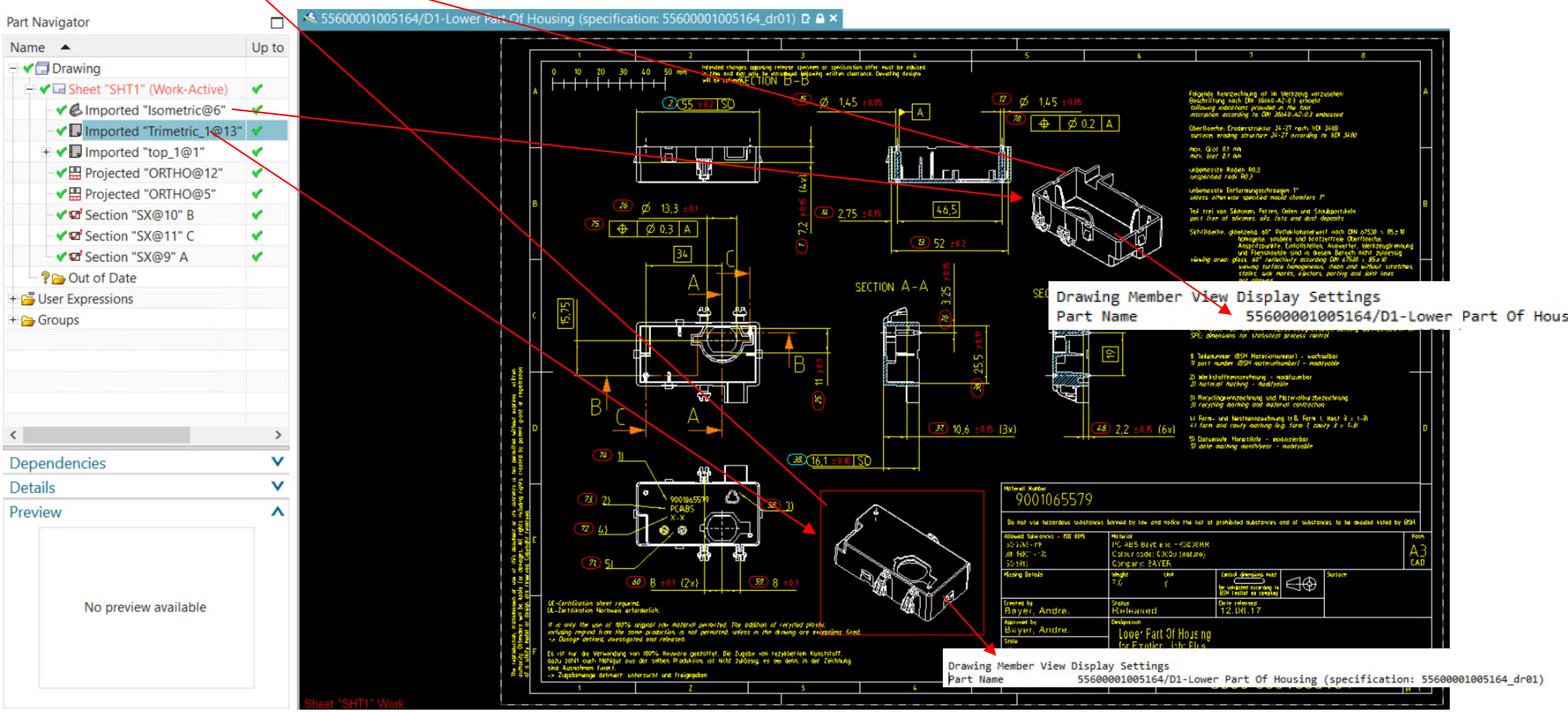
NX8.5 Ansicht (ANT)



Component Referenz Views - Ansicht (18.09.2020)

Example: 55600001005164_D1_specification_55600001005164_dr01.xml


```
<ViewPartName>%UGMGR=V3.2 PH=SxXNsPvsBcXFZC PRH=2RUlRS8RxrUHOD PN=55600001005164 PRN=D1 RT="has shape" AT="UG master part file" </ViewPartName>
<Name>ORTHO@5</Name>
<ViewPartName>%UGMGR=V3.2 PH=SxXNsPvsBcXFZC PRH=2RUlRS8RxrUHOD PN=55600001005164 PRN=D1 RT="has shape" AT="UG master part file" </ViewPartName>
<Name>Isometric@6</Name>
<Name>Trimetric_1@13</Name>
<ViewPartName>%UGMGR=V3.2 PH=SxXNsPvsBcXFZC PRH=2RUlRS8RxrUHOD PN=55600001005164 PRN=D1 AN=55600001005164_dr01 RT="has specification" AT="UG part file" AUID=EUbR2PnYBcXFZC </ViewPartName>
```

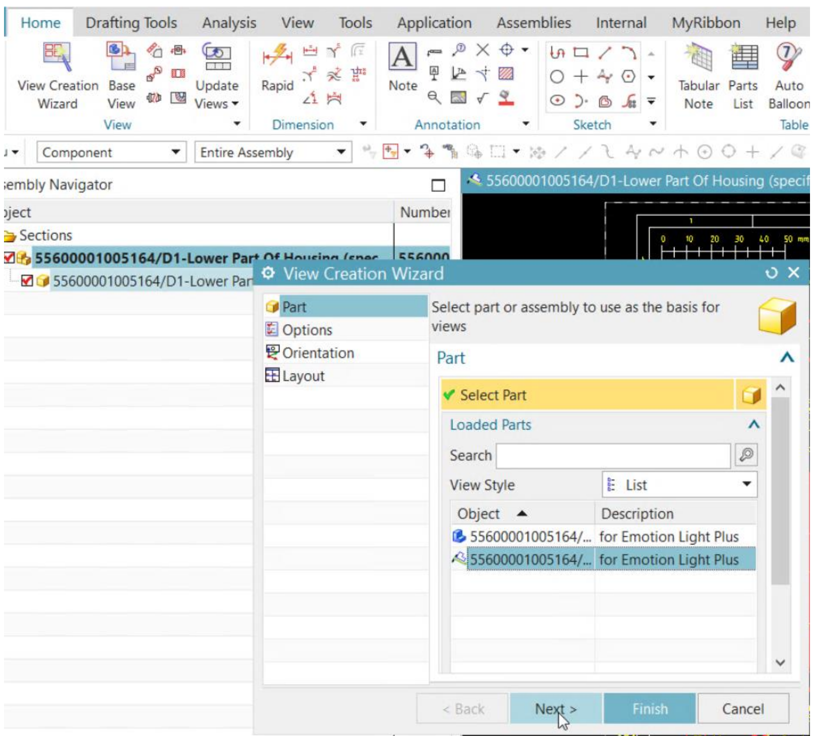



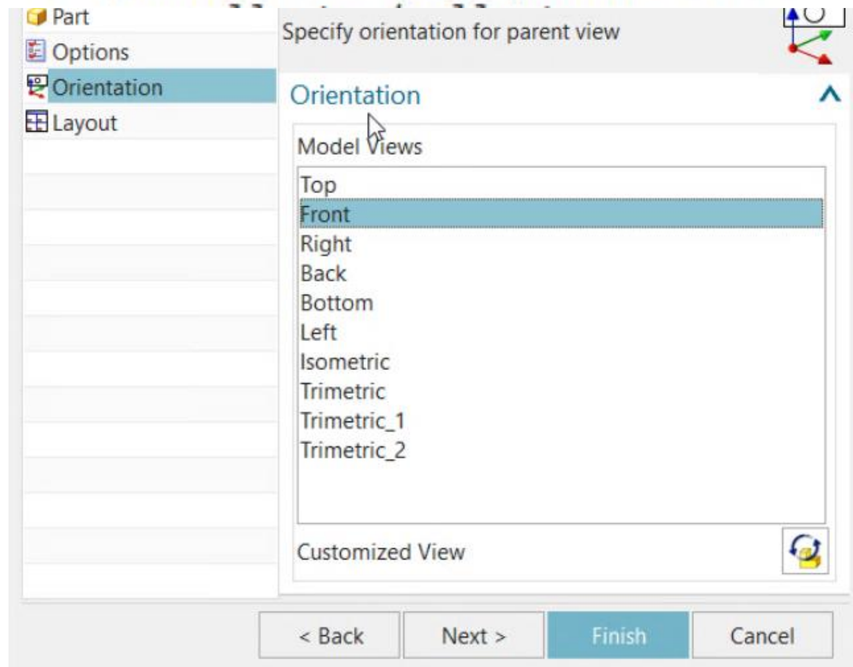
Component Referenz Views - Ansicht (18.09.2020)

CheckBox PLMJobManager

Crate-
- Goto to Modeling in Specification
- Define View with Name …
- GOTO Applic Drawing
- Create Base View
- Start View Creation Wizart → Select Spec

<ReferenceComponent>1</ReferenceComponent>
<IsDraftingComponent>1</IsDraftingComponent>
<UG_Geometry></UG_Geometry>
<RefsetCurr>BODY</RefsetCurr>
<InstanceName>5650F001086771</InstanceName>
<ComponentLevel>1</ComponentLevel>





MTU 08.02.2013

C:\Users\Jopp\Desktop\Start+.Import\mtu\2013-02-08-ExampleData\zzCBExport_LOG.txt

```
Init Logfile at Mon Jan 28 19:21:37 2013

NxCheckBox Release: NxCheckBox V1.1.2.0 (NX 4-7) (Dec 14 2012)
```

C:\Users\Jopp\Desktop\Start+.Import\mtu\2013-02-08-ExampleData\zzCBExport_LOG_vorschlag.txt

```
Init Logfile at Mon Jan 28 19:21:37 2013

NxCheckBox Release: NxCheckBox V1.1.2.0 (NX 4-7) (Dec 14 2012)
```

```
Info: UFUN license for NxCheckBox



--------------------------------------------------------------------------------
[669] doune init program result file
Info: MemTotal: 98993828 kB
Info: MemFree: 95147400 kB
[771] loading part
Error: 920007 in Program: ../SOURCE_FILES/nxcheckbox_utils.c
       -> in line 467 (Teamcenter Error: FSC proxy error: "-9101 File was not foun
*---*
Error: Could not load the part @DB/YAF7317RAENDELMUTTER.2DZ01.B0B9Q/----



Info: MemTotal: 98993828 kB
Info: MemFree: 95117992 kB
[771] loading part
[774] do the checks
Info: MemTotal: 98993828 kB
Info: MemFree: 95110792 kB


================================================================================
Start Check at  Mon Jan 28 19:21:51 2013
```

```
Info: UFUN license for NxCheckBox

[669] done init program result file


================================================================================
Info: MemTotal: 98993828 kB
Info: MemFree: 95147400 kB
[771] loading part @DB/YAF7317RAENDELMUTTER.2DZ01.B0B9Q/----
Error: 920007 in Program: ../SOURCE_FILES/nxcheckbox_utils.c
       -> in line 467 (Teamcenter Error: FSC proxy error: "-9101 File was not fo
*---*
Error: Could not load the part @DB/YAF7317RAENDELMUTTER.2DZ01.B0B9Q/----


================================================================================
Info: MemTotal: 98993828 kB
Info: MemFree: 95117992 kB
[771] loading part @DB/YAE2121-TRäGERPLATTE.MAMAA.B04WC/AA-DMM--
[774] done loading part
Info: MemTotal: 98993828 kB
Info: MemFree: 95110792 kB
--------------------------------------------------------------------------------

Start Check at  Mon Jan 28 19:21:51 2013
```

Feststellungen:
Wurde bereits am 10.02.2013 erledigt

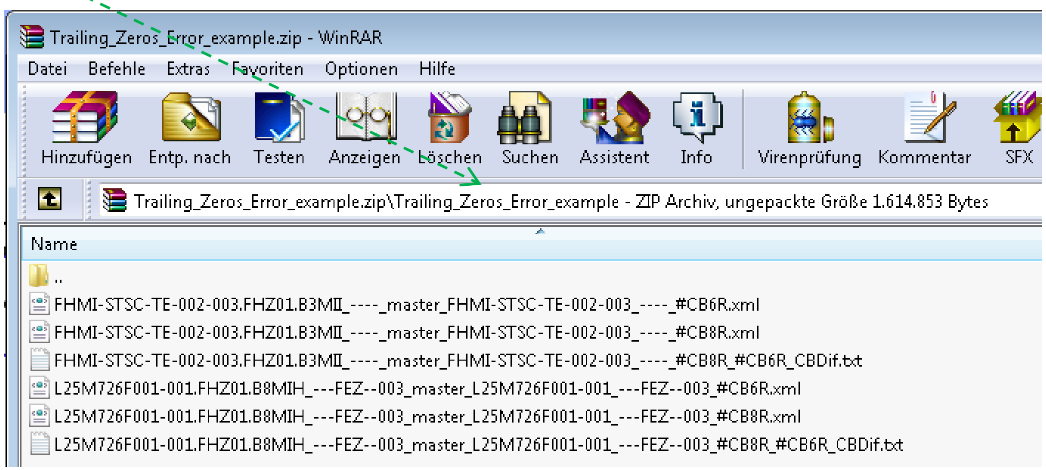
MTU 18.02.2013 EN26: Trailing Zero

```
++Error:EN26.......: [Texts.Text][Val.Dif:Is not equal]
 |-> Object........: Type:[26] Subtype:[2] Desc:[UF_dim_vertical] Name:[] Handle:[RM%UL=V1.0 PH=z1011P_6h9c12B%MRN=---FEZ--003 R000f65cc00000164
 |                   Origin....:[X:[821,799767] Y:[696,207247] Z:[0,000000]]
 |                   Text.Value:[TextInfo-1:(Text:[Text-1:'10.00']/Font:[1]/Size:[5]/Angle:[1.570796]/TextType:[1])]
 |-> NX V6.0.2.8...: TextInfo-1:(Text:[Text-1:'10.00']/Font:[1]/Size:[5]/Angle:[1.570796]/TextType:[1])
 |-> NX V8.0.3.4...: TextInfo-1:(Text:[Text-1:'10']/Font:[1]/Size:[5]/Angle:[1.570796]/TextType:[1])
```

PI: Soll Ergebnis:
Class - WRN
Msg: - “WRN:Trailing Zero”
[PI:WRN:Trailing Zero]

Achtung Zuordnung nach TextType
!! Siehe auch Folie 19 !!

Beispiel Files siehe:



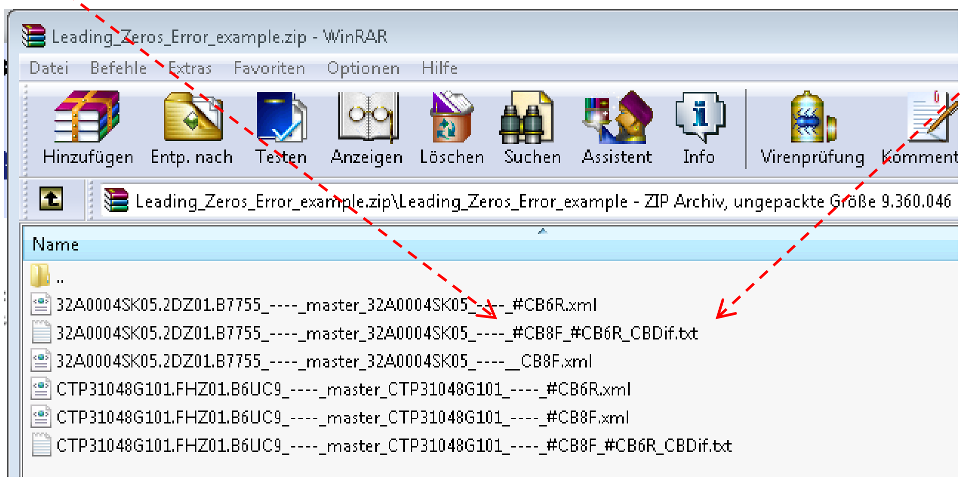
MTU 18.02.2013 EN26: Leading Zeros

```
391 ++Error:EN26.......: [Texts.Text][Val.Dif:Is not equal]
392  |-> Object........: Type:[26] Subtype:[4] Desc:[UF_dim_cylindrical] Name:[] Handle:[RM%UL=V1.0 PH=D4D
393  |                   Origin....:[X:[40,208014] Y:[24,740578] Z:[0,000000]]
394  |                   Text.Value:[TextInfo-1:(Text:[Text-1:'<C2.000>**<C>']/Font:[1]/Size:[0,2]/Angle:[  ]000]/TextType:[2])/TextInfo-5:(Text:[Text-1:
395  |-> NX V6.0.2.8...: TextInfo-1:(Text:[Text-1:'<C2.000>**<C>']/Font:[1]/Size:[0,2]/Angle:[0.000000]/Te  pe:[2])/TextInfo-5:(Text:[Text-1:'<$t>.05']/F(
396  |-> NX V8.0.3.4...: TextInfo-1:(Text:[Text-1:'<C2.000>**<C>']/Font:[1]/Size:[0,2]/Angle:[0.000000]/Te  pe:[2])/TextInfo-5:(Text:[Text-1:'<$t>0.05']/
```

PI: Soll Ergebnis:
Class - WRN
Msg: - "WRN:Leading Zero"
[PI:WRN:Leading Zero]

```
104
105
106 0.000000]/TextType:[2])/TextInfo-4:(Text:[Text-1:'<T+.000!-.004>']/Font:[1]/Size:[5,08]/Angle:[0.
107 xtType:[2])/TextInfo-4:(Text:[Text-1:'<T+.000!-.004>']/Font:[1]/Size:[5,08]/Angle:[0.000000]/Text
108 xtType:[2])/TextInfo-4:(Text:[Text-1:'<T 0!-.004>']/Font:[1]/Size:[5,08]/Angle:[0.000000]/TextTyp
```

Beispiel Files siehe:



Achtung Zuordnung nach TextType
!! Siehe auch Folie 19 !!
MTU sendet noch Beispiele

MTU TiF Erzeugung Specification

CB – XML vergleich
→ keine Differenz die eine Tif erfz. Erfordert → kein Tif erzeugen
→ Dif die eine Tif erz. Notwendig macht → Tif erzeugen
→ Regel konfigurierbar kein automatisches Tif erzeugen

Tif erzeugen als Command
Result Message des Tif Compare je Vergleich erweitern
V6R6U #6R-6U#
V6R8R #6R-8R#

Files	Vergleiche		
	V6R6U	V6R8R	
4711_Sheet1_#6r.cgm	1	1	
4711_Sheet1_#6u.cgm	1		
4711_Sheet2_#6r.cgm	2		2
4711_Sheet2_#6u.cgm	2		
4711_Sheet1_#8r.cgm			1
4711_Sheet2_#8r.cgm			2

TIF-Analyse V6R6U:[OK:PPMmax:102] V6R8R:[OK:PPMmax:202] ….
V6R6U:[ERR:PPMmax:500] V6R8R:[ERR:PPMmax:602]
Ergebnis als Text File mit Auflistung der „Tif1_NE → Tif2_NE → Ergebnisse Result
Überlegung das ganze in ein HTM File (Grado:„Lösung die mit der Goldkante“) erzeugen
Link zeigt auf Ergebnis File
Wenn keine Daten vorhanden dann Ergebnis: TIF-Analyse V6R6U:[PPMmax:NoData]

Comp Matrix #New: 06.11.2017

CheckBox PLMJobManager

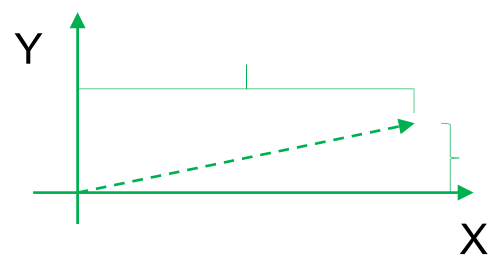
XX

Delta X	22.278856830
Delta Y	-18.145825623
Delta Z	0.000000000

Component Rotations:

X-axis Vector	X	0.866025404	Y -0.500000000	Z 0.000000000
	XC	0.866025404	YC -0.500000000	ZC 0.000000000
Y-axis Vector	X	0.500000000	Y 0.866025404	Z 0.000000000
	XC	0.500000000	YC 0.866025404	ZC 0.000000000
Z-axis Vector	X	0.000000000	Y 0.000000000	Z 1.000000000
	XC	0.000000000	YC 0.000000000	ZC 1.000000000

```
<Matrix>
  <X1>0.866025</X1>
  <Y1>0.500000</Y1>
  <Z1>0.000000</Z1>
  <X2>-0.500000</X2>
  <Y2>0.866025</Y2>
  <Z2>0.000000</Z2>
  <X3>0.000000</X3>
  <Y3>-0.000000</Y3>
  <Z3>1.000000</Z3>
  <originX>22.278857</originX>
  <originY>-18.145826</originY>
  <originZ>0.000000</originZ>
</Matrix>
```



1,0,0 -> 0.86; 0.50; 0
0,1,0
0,0,1

CheckBox V2.0.0.2 30.01.2012 Details: MomentOfIntertinaN1 + CentrOfGrafitiN1

```
<ModelData>
  <Refsets>
    <Refset>
     <Name>Entire Part</Name>
      <Volume>11284.060003</Volume>
      <VolumeBodies_n>12</VolumeBodies_n>
      <Feature3D_n>15</Feature3D_n>
      <CentreOfGravity>
        <X>46.630783</X>
        <Y>-93.123528</Y>
        <Z>1.365270</Z>
      </CentreOfGravity>
      <MomentOfInertia>
        <X>143899626[illegible].2985[illegible]</X>
        <Y>2297244[illegible]</Y>
        <Z>1[illegible]204[illegible]018</Z>
      </MomentOfInertia>
      <CentreOfGravityN1>
        <X>53.679451</X>
        <Y>-119.552786</Y>
        <Z>1.384253</Z>
      </CentreOfGravityN1>
      <MomentOfInertiaN1>
        <X>1437593900.038755</X>
        <Y>220089768.898231</Y>
        <Z>1657262983.450863</Z>
      </MomentOfInertiaN1>
    </Refset>
    <Refset>
```

Ab dieser Version ist die optionale Berechnung der Massenschwerpunktes und des Massen Trägheitsmoments mit dem spezifischen Gewicht für alle Volumenkörper = 1 und dem entire Part reference set eingebaut

Usage: Environ
NXCB_ANALYZE_NORMALIZED_MASS_PROPS=TRUE

Beispiel windows:
set NXCB_ANALYZE_NORMALIZED_MASS_PROPS=TRUE
Beispiel linux:
export XCB_ANALYZE_NORMALIZED_MASS_PROPS=TRUE

Ersetzt durch Prototype Analyse
25.03.2013 J.Fes

CheckBox V2.0.0.2 30.01.2012 Details: MomentOfIntertinaN1 + CentrOfGrafitiN1

```
<ModelData>
  <Refsets>
    <Refset>
     <Name>Entire Part</Name>
      <Volume>11284.060003</Volume>
      <VolumeBodies_n>12</VolumeBodies_n>
      <Feature3D_n>15</Feature3D_n>
      <CentreOfGravity>
        <X>46.630783</X>
        <Y>-93.123528</Y>
        <Z>1.365270</Z>
      </CentreOfGravity>
      <MomentOfInertia>
        <X>143899626[illegible].2985[illegible]</X>
        <Y>22972448[illegible]</Y>
        <Z>1[illegible]204[illegible]018</Z>
      </MomentOfInertia>
      <CentreOfGravityN1>
        <X>53.679451</X>
        <Y>-119.552786</Y>
        <Z>1.384253</Z>
      </CentreOfGravityN1>
      <MomentOfInertiaN1>
        <X>1437593900.038755</X>
        <Y>220089768.898231</Y>
        <Z>1657262983.450863</Z>
      </MomentOfInertiaN1>
    </Refset>
    <Refset>
```

Telko 01.02.2013 B.Schieber J.Feuerstein
Body des Parts

Dem Refset „Entire Part“
Der Berechnung werden die
- Es werden nur Body's des Workparts der Berechnung hinzugefügt
- Prüfen via:
  Assembly 2 Bodys (mit unterschiedlicher Density)
  2 Unter Komp Body -> Volumen
  Einheiten sind: gr + cm

Ersetzt durch Prototype Analyse 25.03.2013 J.Fes