



TeamSystemProTEAM

# Komponentenorientiertes Build- und Dependency Management mit TFS bei Nero

## Sven Hubert – AIT TeamSystemPro Team



# Das Unternehmen



TeamSystemProTEAM

Wir unterstützen Sie  
in den folgenden Bereichen:



.NET Softwareentwicklung  
.NET Entwicklung

[» Mehr Informationen](#)



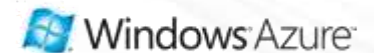
.NET Software-Entwicklung  
Architektur Beratung

[» Mehr Informationen](#)



Team Foundation Server  
Visual Studio Consulting

[» Mehr Informationen](#)



Neue Chancen mit Microsofts  
Cloud Computing Plattform

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Über 200 Kunden vertrauen auf unsere Expertise und Professionalität!

Mehr Informationen unter: <http://www.aitgmbh.de>

# Agenda

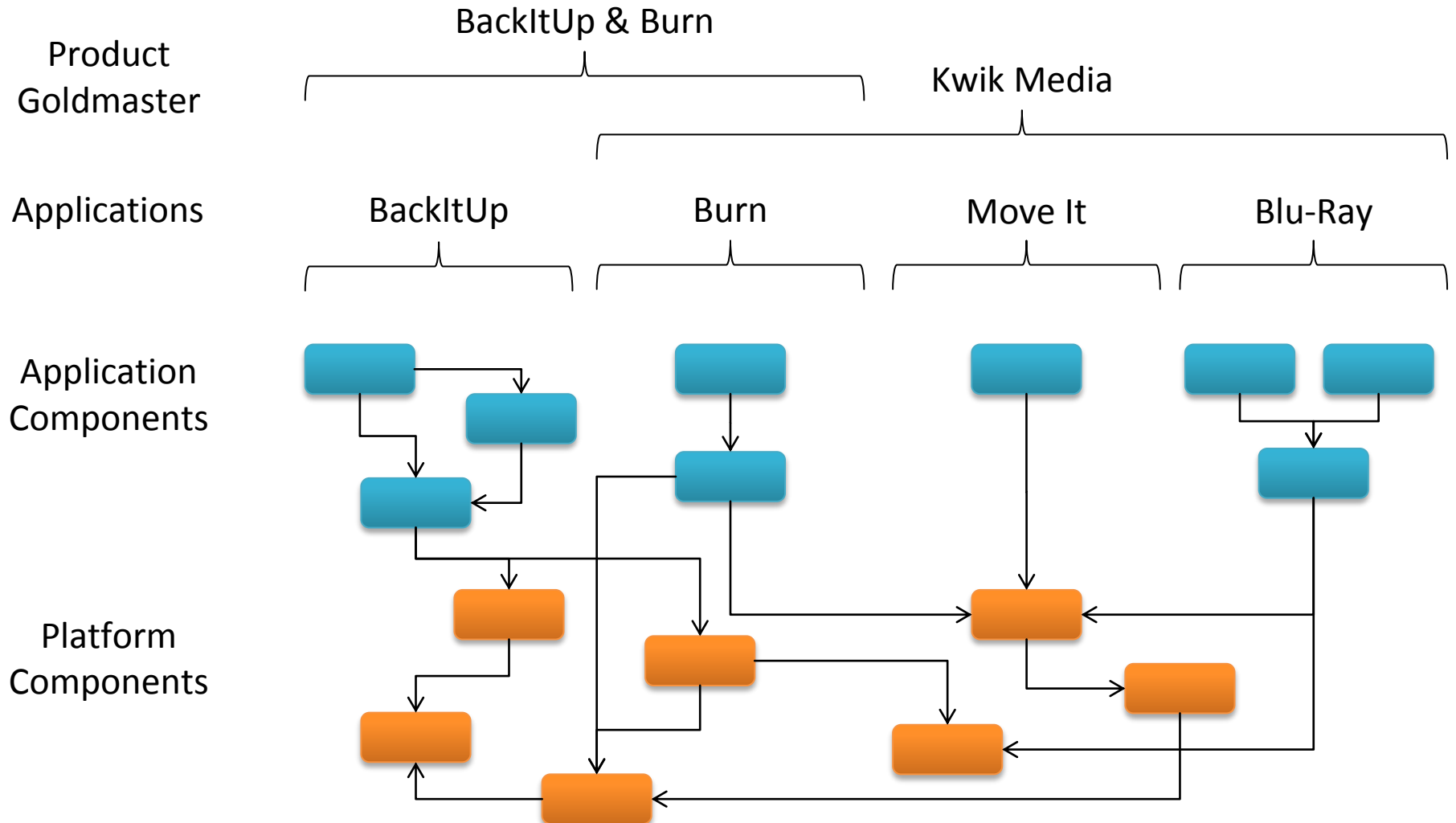


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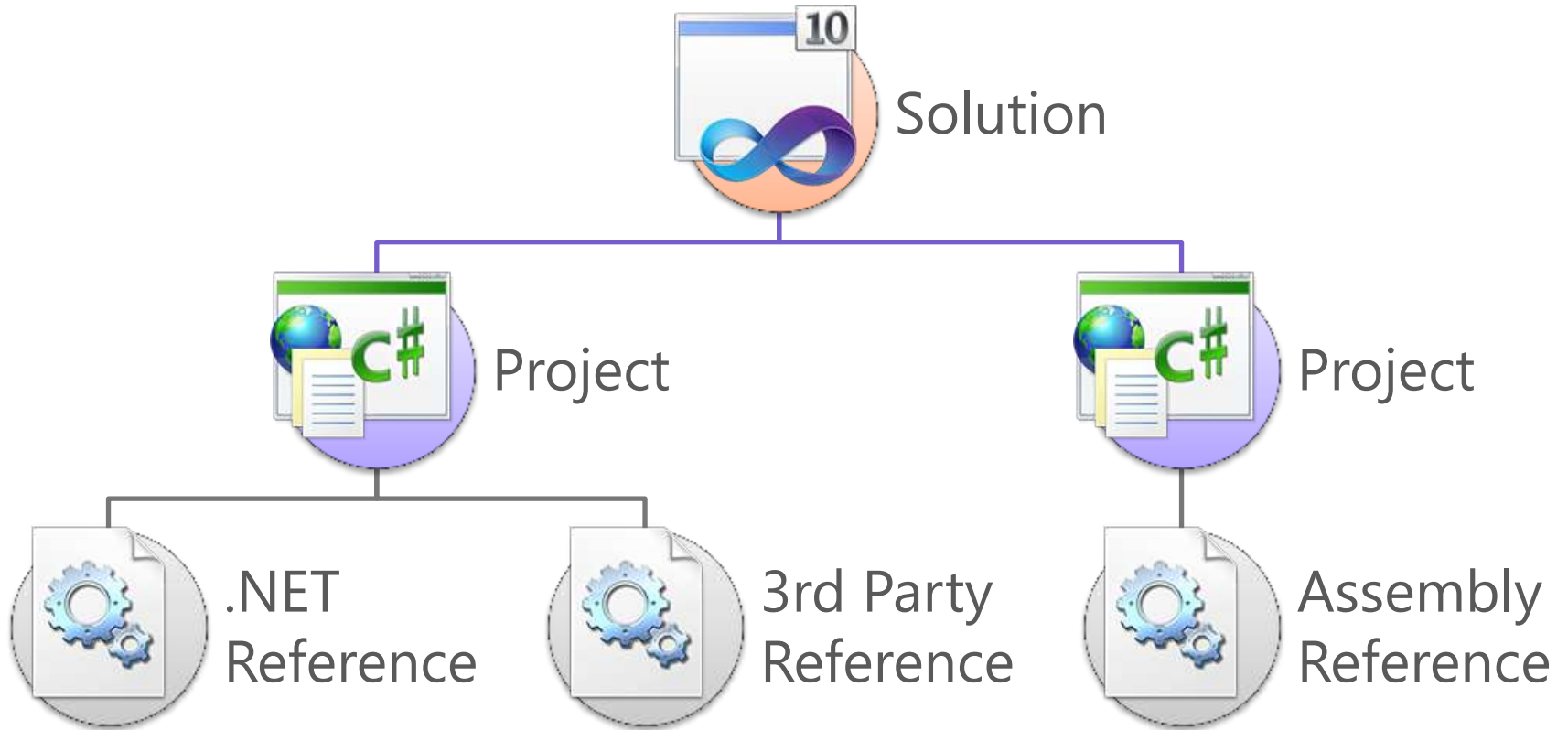
- Nero – das Produkt
- Komponenten im TFS
- Nero's Ansatz
- Die Lösung
- Zusammenfassung

300 Entwickler  
 40 Teams  
 4 Standorte  
 90 Komponenten  
 12 Produkte





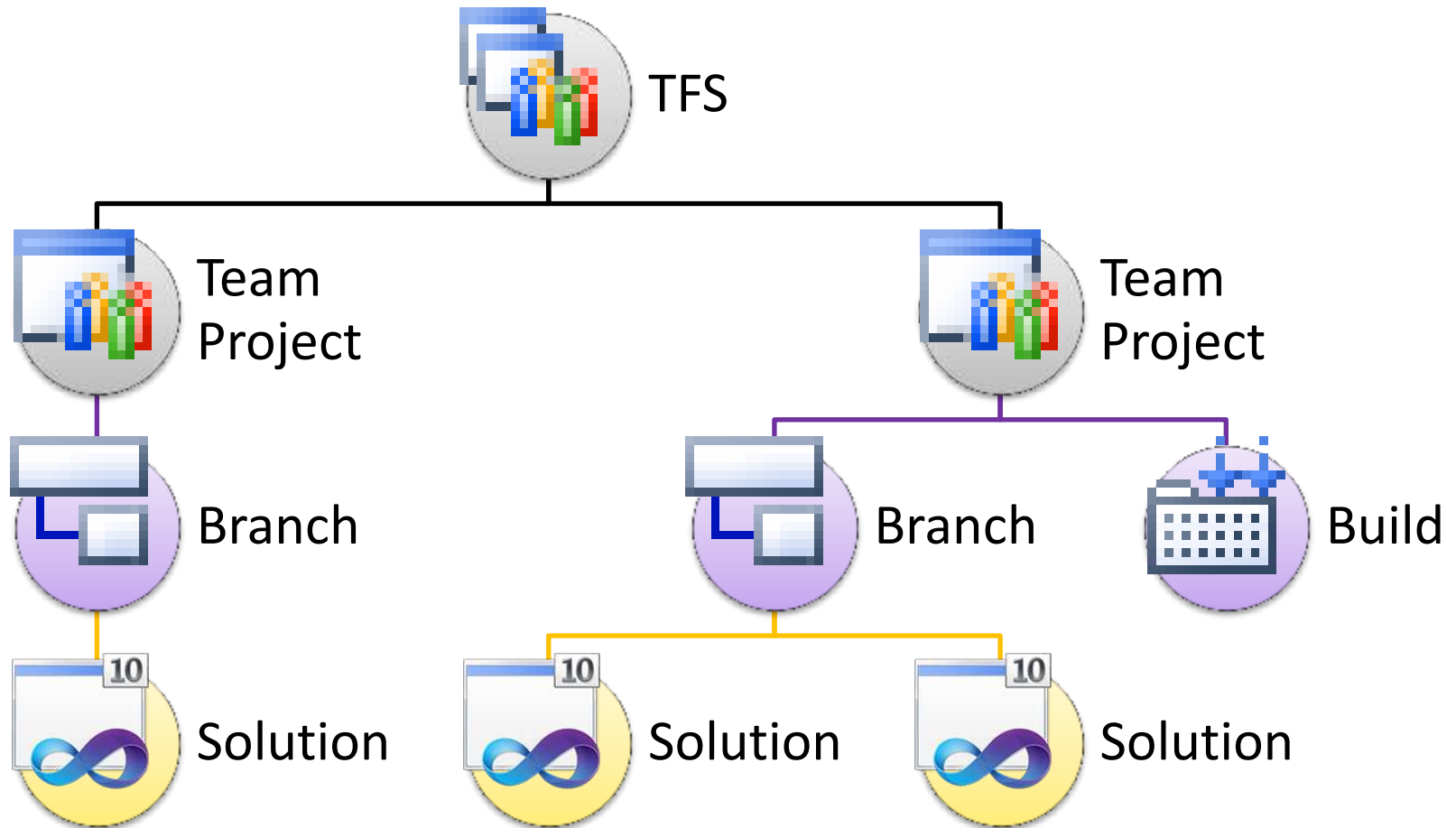
# .NET Solution Universe



# TFS Universe



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Dependency Management

**DEMO**

# Nero Source Control



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# Dependency Definition



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```
components.targets X
<Project DefaultTargets="GetComponents" xmlns="http://schemas.microsoft.com/developer/msbuild/2003">
  <Import Project="$(MSBuildExtensionsPath)\Nero\Nero.Common.targets" />

  <PropertyGroup>
    <BuildVersion Condition="'$(BuildVersion)' == ''">1.0.0.0</BuildVersion>
    <ComponentName>Nero Burning ROM</ComponentName>

    <Branch>Main</Branch>

    <PublicServerRootPath>$/Nero/source/Main/public</PublicServerRootPath>
    <ThirdPartyServerRootPath>$/Nero/3rdparty</ThirdPartyServerRootPath>
    <PublicLocalRootPath>..\public</PublicLocalRootPath>
    <ThirdPartyLocalRootPath>..\public</ThirdPartyLocalRootPath>

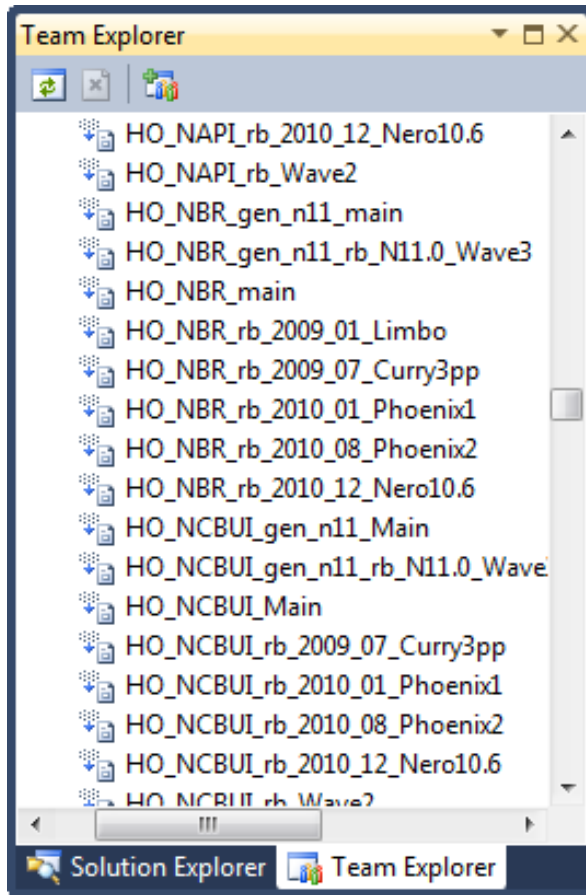
    <CheckinComment>Check in of new results</CheckinComment>
    <ResultLabelName>$(LabelName)</ResultLabelName>
    <ResultLabelComment>$(BuildVersion)</ResultLabelComment>

    <ItemGroup>
      <Components Include="AFC">
        <Type>Dependency</Type>
        <ServerRootPath>...</ServerRootPath>
        <LocalRootPath>...</LocalRootPath>
        <Version>T</Version>
        <IncludePattern>^(include|lib|redis)/</IncludePattern>
      </Components>
      <Components Include="NeroAPI">
        <Type>Dependency</Type>
        <ServerRootPath>...</ServerRootPath>
        <LocalRootPath>...</LocalRootPath>
        <Version>LL HO NAPI 10.1.8.100</Version>
        <IncludePattern>^(include|lib|redis)/</IncludePattern>
      </Components>
    </ItemGroup>

    <Target Name="AfterCompileConfiguration">
      <Message Text="Hello World: $(BuildNumber)" />
    </Target>
  </Project>
```



# Namenskonvention für Builds



`<Typ>_<Komponente>_<Branch>_<Version>`



Dependency Explorer x Source Control Explorer

Type:  Branch:  Component:

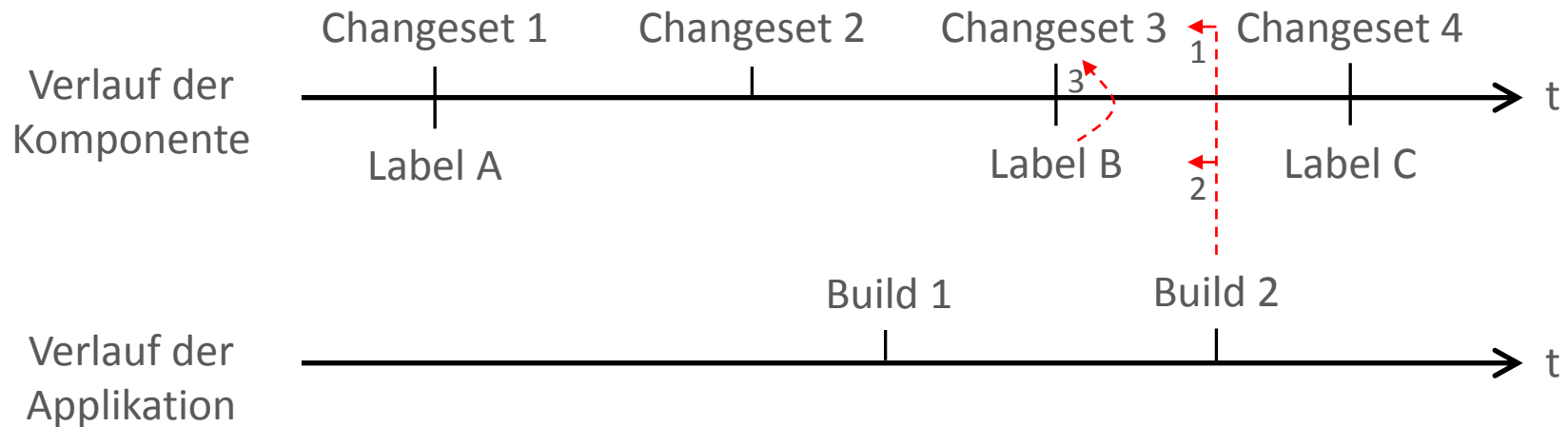
Build Filter:

☰	Type	Component	Branch	Version	Date	Quality
☑	HO	NBR	main	10.3.2.100	25.12.2010 00:49:27	
☑	HO	NBR	main	10.3.3.100	25.12.2010 02:13:01	
☑	HO	NBR	main	10.3.5.100	29.12.2010 16:24:36	
☑	HO	NBR	main	10.3.6.100	02.03.2011 09:25:47	
☑	HO	NBR	main	10.3.7.100	31.05.2011 15:24:30	

Dependencies Work Items Test Results Dependency Details

☰	Component	Version	Resolved Version/Group Id
<b>Global</b>			
	Build Definition	HO_NBR_main	
	Build Number	HO_NBR_main_10.3.5.100	
	Build Template	old version	
<b>Dependent Components</b>			
⊖	AdvrCntr	T	
⊖	AFC	T	L_HO_AFC_10.4.0.1
⊕	AudioPluginMgr	LL_HO_AudioPluginMgr_7.3.0.1	
⊕	BCG 8.6	T	22.07.2010 14:34:22
⊕	boost mini	T	27.04.2010 20:09:59
⊖	CoverEdCtrl	T	23.04.2010 00:35:47
⊕	DiscNavigation	LL_HO_ATEC_7.1.17.0	
⊖	DriveLocker	LL_HO_08_11_DLOCK_1.0.1.1	
⊕	NeroAPI	LL_HO_NAPI_10.1.8.100	
⊖	NeroContainer	T	14.04.2010 04:02:34
⊕	NeroFileDialog	LL_HO_NFD_5.2.0.0	
⊖	NeroLicense	T	
⊖	NeroNLS	T	
⊕	NeroPAL	T	L_HO_NPTK_10.4.0.1
⊕	NeroPreview	LL_HO_NPRE_5.2.0.0	

# Auflösen der Version "T"





Dependency Explorer x Source Control Explorer

Type:  Branch:  Component:

Build Filter:

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✓	HO NBR	main	10.3.2.100	25.12.2010 00:49:27	
✓	HO NBR	main	10.3.3.100	25.12.2010 02:13:01	
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✓	HO NBR	main	10.3.6.100	02.03.2011 09:25:47	
✓	HO NBR	main	10.3.7.100	31.05.2011 15:24:30	

Date	Version	Path
<b>NMDIHost</b>		
28.07.2010 09:15:16	LL_HO_NMDIHost_5.1	NBR
<b>NPTKGlobal</b>		
03.06.2010 09:02:15		NBR -> NScCoreComponents
16.06.2010 13:56:41		NBR -> NeroPreview
16.06.2010 13:56:41		NBR -> NeroFileDialog
06.07.2010 13:28:35	LL_HO_NPTK_10.2.2.0	NBR -> NeroAPI
06.07.2010 13:28:35	LL_HO_NPTK_10.2.2.0	NBR -> DiscNavigation -> NeroAPI
16.07.2010 12:51:41	LL_HO_NPTK_10.2.3.0	NBR -> DiscNavigation
29.12.2010 16:24:36		NBR
<b>NPTKRes</b>		
03.06.2010 09:02:15		NBR -> NScCoreComponents
16.06.2010 13:56:41		NBR -> NeroFileDialog
16.06.2010 13:56:41		NBR -> NeroPreview
06.07.2010 13:28:35	LL_HO_NPTK_10.2.2.0	NBR -> NeroAPI
06.07.2010 13:28:35	LL_HO_NPTK_10.2.2.0	NBR -> DiscNavigation -> NeroAPI
13.12.2010 18:55:09	L_HO_NPTK_10.4.0.1	NBR
<b>NScCoreComponents</b>		
03.06.2010 09:02:15	LL_HO_NSC_5.3.2.0	NBR
16.06.2010 13:56:41		NBR -> NeroFileDialog

Find Previous Find Next (Selected) New Work Item

Dependency Explorer x Source Control Explorer

Type:  Branch:  Component:

Build Filter:

Type	Component	Branch	Version	Date	Quality
✓	HO NBR	main	10.3.2.100	25.12.2010 00:49:27	
✓	HO NBR	main	10.3.3.100	25.12.2010 02:13:01	
✓	HO NBR	main	10.3.5.100	29.12.2010 16:24:36	
✓	HO NBR	main	10.3.6.100	02.03.2011 09:25:47	
✓	HO NBR	main	10.3.7.100	31.05.2011 15:24:30	

Dependencies Work Items Test Results **Dependency Details**

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16.07.2010 12:51:41	LL_HO_NPTK_10.2.3.0	NBR -> DiscNavigation
29.12.2010 16:24:36		NBR
<b>NPTKRes</b>		
03.06.2010 09:02:15		NBR -> NScCoreComponents
16.06.2010 13:56:41		NBR -> NeroFileDialog
16.06.2010 13:56:41		NBR -> NeroPreview
06.07.2010 13:28:35	LL_HO_NPTK_10.2.2.0	NBR -> NeroAPI
06.07.2010 13:28:35	LL_HO_NPTK_10.2.2.0	NBR -> DiscNavigation -> NeroAPI
13.12.2010 18:55:09	L_HO_NPTK_10.4.0.1	NBR
<b>NScCoreComponents</b>		
03.06.2010 09:02:15	LL_HO_NSC_5.3.2.0	NBR
16.06.2010 13:56:41		NBR -> NeroFileDialog

Date	Version	Path
<b>DotnetPolicies</b>		
02.05.2011 18:29:19	LL_HO_NPOL_11.0.0.7	NOS -> NScCoreComponents -> SMC -> AFC -> OnlineServices
02.05.2011 18:29:19	LL_HO_NPOL_11.0.0.7	NOS -> SMC -> NeroAPI -> AudioPluginMgr -> AFC -> OnlineServices
02.05.2011 18:29:19	LL_HO_NPOL_11.0.0.7	NOS -> SMC -> NeroAPI -> AFC -> OnlineServices
02.05.2011 18:29:19	LL_HO_NPOL_11.0.0.7	NOS -> PTT -> NeroAPI -> AudioPluginMgr -> AFC -> OnlineServices
02.05.2011 18:29:19	LL_HO_NPOL_11.0.0.7	NOS -> NScCoreComponents -> PTT -> AFC -> OnlineServices
02.05.2011 18:29:19	LL_HO_NPOL_11.0.0.7	NOS -> PTT -> NeroAPI -> AFC -> OnlineServices
02.05.2011 18:29:19	LL_HO_NPOL_11.0.0.7	NOS -> NeroAPI -> AFC -> OnlineServices
02.05.2011 18:29:19	LL_HO_NPOL_11.0.0.7	NOS -> DotnetPolicies -> OnlineServices
02.05.2011 18:29:19	LL_HO_NPOL_11.0.0.7	NOS -> NeroAPI -> AudioPluginMgr -> AFC -> OnlineServices
02.05.2011 18:29:19	LL_HO_NPOL_11.0.0.7	Cyclic Dependency: NOS -> DotnetPolicies -> OnlineServices -> DotnetPolicies
25.05.2011 20:05:58	LL_HO_NPOL_11.0.0.10	NOS
<b>DotnetToolkit</b>		
02.05.2011 18:29:34	LL_HO_NKIT_11.0.0.7	NOS -> PTT -> NeroAPI -> AFC -> OnlineServices
02.05.2011 18:29:34	LL_HO_NKIT_11.0.0.7	NOS -> NeroAPI -> AFC -> OnlineServices
02.05.2011 18:29:34	LL_HO_NKIT_11.0.0.7	NOS -> NeroAPI -> AudioPluginMgr -> AFC -> OnlineServices
02.05.2011 18:29:34	LL_HO_NKIT_11.0.0.7	NOS -> SMC -> NeroAPI -> AudioPluginMgr -> AFC -> OnlineServices
02.05.2011 18:29:34	LL_HO_NKIT_11.0.0.7	NOS -> NScCoreComponents -> PTT -> AFC -> OnlineServices
02.05.2011 18:29:34	LL_HO_NKIT_11.0.0.7	NOS -> SMC -> NeroAPI -> AFC -> OnlineServices
02.05.2011 18:29:34	LL_HO_NKIT_11.0.0.7	NOS -> PTT -> NeroAPI -> AudioPluginMgr -> AFC -> OnlineServices



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✓	HO	NBR	main	10.3.6.100	02.03.2011 09:25:47	
✓	HO	NBR	main	10.3.7.100	31.05.2011 15:24:30	

Dependencies		Work Items	Test Results	Dependency Details	
📦	Id	Type	Title	Assigned to	Status
✓	26299	Bug	NeDSSrcGraphBuilder could not decode	Istingli   an	Ready for Test
✓	27454	Bug	wrong HRESULT for EndSetup() is playb.		Ready for Test
✓	27550	Bug	Thumbnail generation failed sometimes		Ready for Test
✓	27570	Bug	Crash in thumbnail extraction of a MTS f		Ready for Test
✓	27619	Bug	Crashes in MKV library		Ready for Test
<b>MMC 7.3.0.2</b>					
✓	9046	AG-PD Reque	Implement codec strategy for video pla		Done
⚠	10338	Task	Manage PDMM Handovers and Mainter	Nadja Klau	Not Started
⚠	12074	Task	Maintenance of NeMetaData.dll	Dejun Yuan	In Progress
✓	16533	Requirement	Implement codec strategy for video dis		Done
✓	27557	Bug	AccessViolationException in IConfigurat		Ready for Test
✓	28547	Bug	Background of WMF image is changed		Ready for Test
✓	28746	Bug	Playback will stop when play audio CD a		Ready for Test
✓	28750	Bug	NeMpeg4Splitter could not deliver a full		Ready for Test
✓	28850	Bug	Import one special file will crash in NeSp		Ready for Test
<b>NAPI 10.1.8.100</b>					
⚠	8876	Task	Update component versions for upcom	Alway Mri	Not Started
⚠	11226	Task	Source code merging and branching	Alway Mri	Not Started
⚠	13231	Task	CodeChecker fixes	Alway Mri	Not Started
✓	14128	Bug	NeroAPI does not have pt_PT language		Ready for Test



Group

Total

Passed

Failed

Skipped

Pending

Unchanged

Changed

**Manual Tests**

Summary

394

77

0

-

317

-

-

**Automatic Tests**

Summary

11173

10734

422

13

-

1

3

**Details Automatic Tests**

NeMetaData

4

0

0

0

-

1

3

PTT

84

47

26

11

-

0

0

ndaudio

1

1

0

0

-

0

0

NeESParser + NeAudio2

1

1

0

0

-

0

0

NDDemo

34

34

0

0

-

0

0

SMVDemux

11

11

0

0

-

0

0

NeAacDec

109

109

0

0

-

0

0

NeApeEnc

372

5

365

2

-

0

0

NeAudioEnc

10557

10526

31

0

-

0

0



# Weiterführende Links

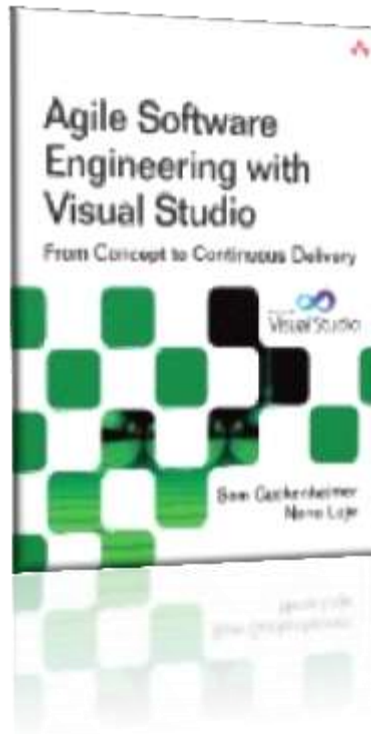


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Der AIT TFS-Blog: <http://tfsblog.de>

[Chris Binder: Code Sharing mit TFS](#)

[Erweitertes Dependency Management mit TFS](#)



## Agile Software Engineering with Visual Studio: From Concept to Continuous Feedback

Ein Buch entstanden in Kooperation zwischen Microsoft und dem AIT TeamSystemPro Team. **Sam Guckenheimer und Neno Loje** zeigen in einem bunten Mix aus Best Practices, allgemeinen Themen zur Software-Entwicklung und technischen Beschreibungen von Team Foundation Server, wie agile Software-Entwicklung funktionieren kann. Interessant für fachliche Administratoren, Entscheider und Prozess-Manager, die mehr mit TFS zu tun haben, als die reine Verwendung, sondern es als strategische Plattform sehen.

# Kontaktieren Sie uns



TeamSystemProTEAM



TeamSystemPro Team

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