

# Using Teamcenter Requirements to Validate NX Designs

Taylor Anderson  
NX Product Manager  
(Check-Mate and  
Requirements Validation)  
Wednesday, June 4th, 2008  
UGS Connection Conference



## Agenda

What is RDDV?

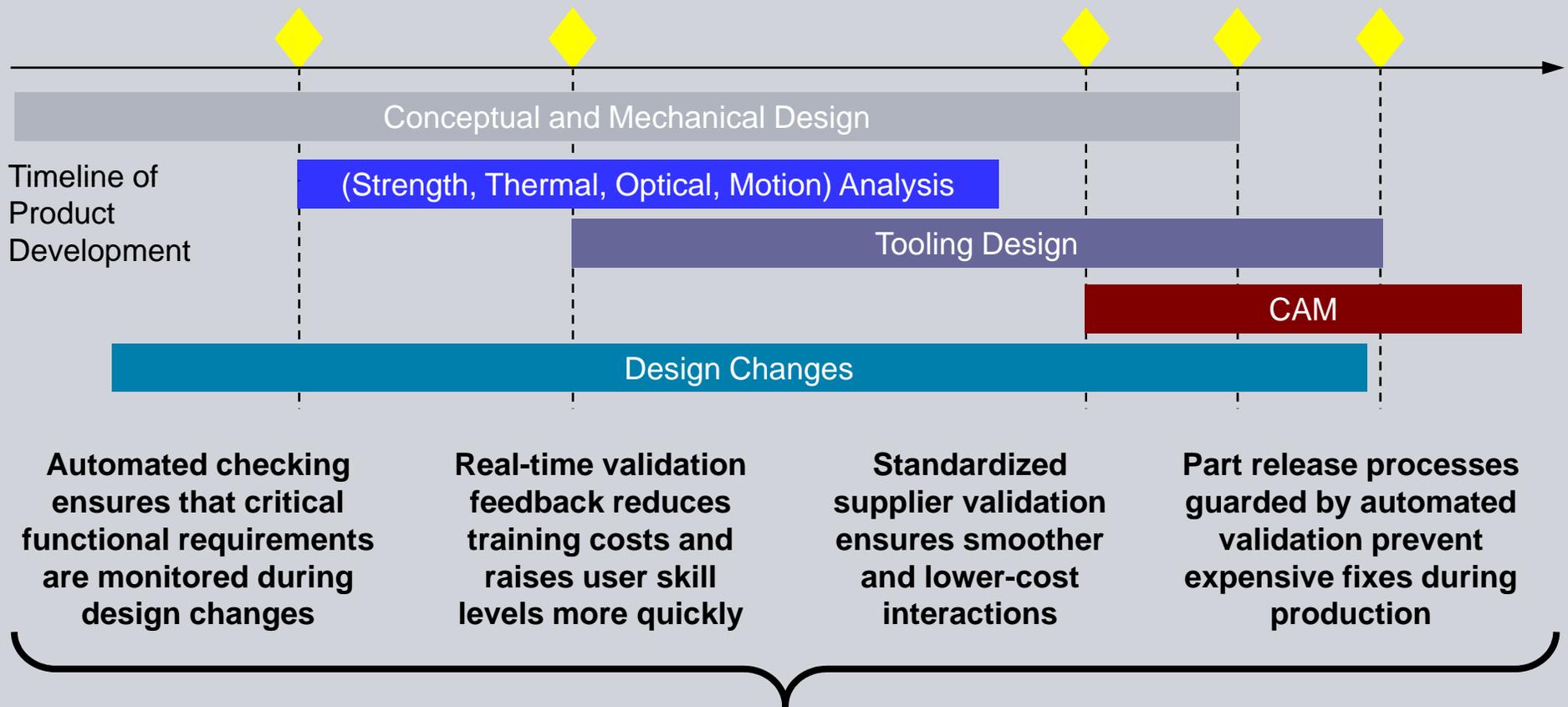
How does it work with Teamcenter Requirements?

Demonstration

**“Validate Early and Validate Often”**

Validation Throughout the Product Development Process

**Why is constant, consistent validation so valuable?**



**Results database and reporting tools allow data quality to be mined, measured, and improved.**

## Agenda

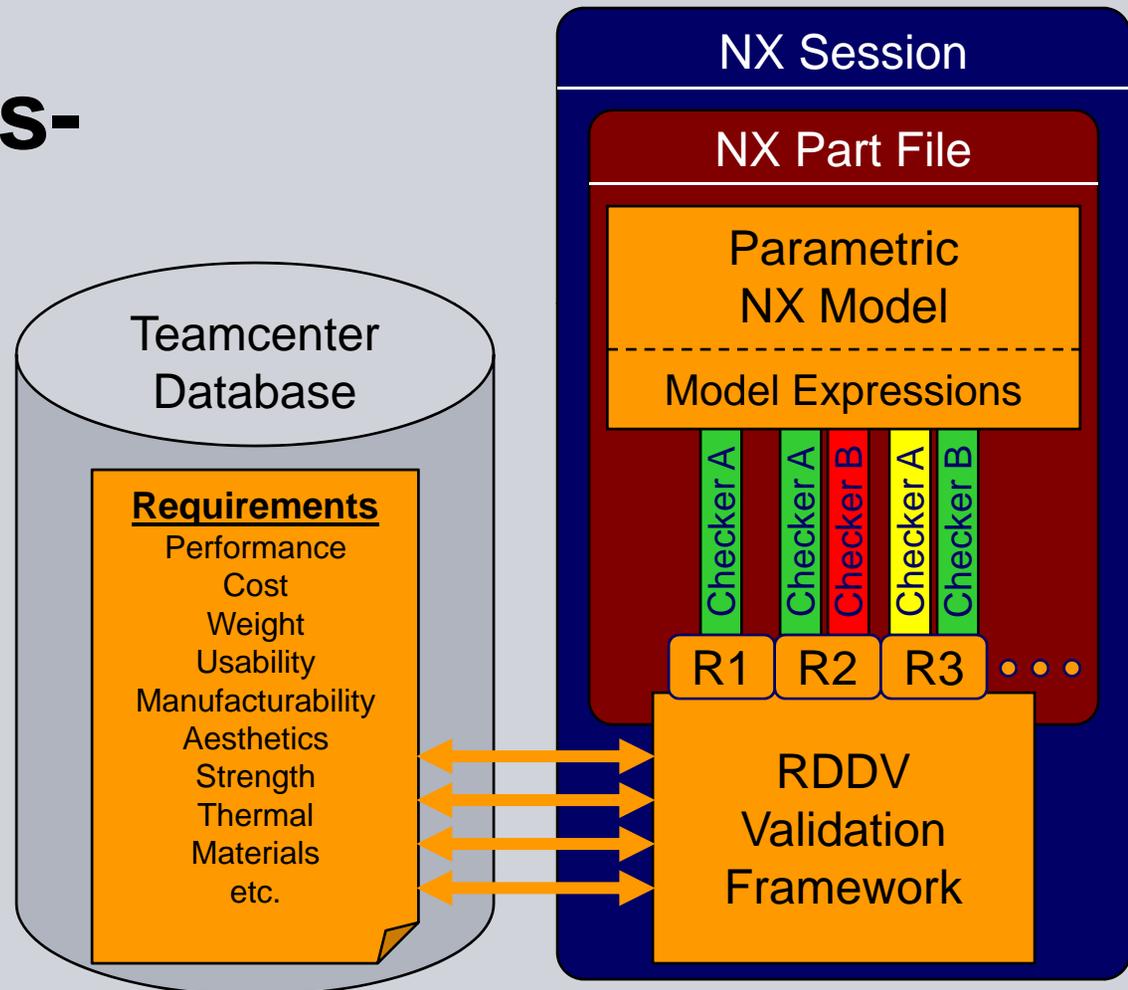
What is RDDV?

How does it work with Teamcenter Requirements?

Demonstration

What is RDDV?

# Requirements-Driven Design Validation



## NX Design Validation Framework

Common Checking Engine (Knowledge Fusion)

Common Data Management (Teamcenter Validation Objects)

Common Reporting Framework (Quality Dashboard)

### Check-Mate

Standards Validation

    Formatting Standards

    Company Standards

    General Best Practices

Automatic or manual execution

No Setup of checks against parts

Corrective Action

(Automatically, where it makes sense.)

### RDDV

Requirements-Driven Validation

    Functional Requirements

    Design Targets

    Context-Specific Values

Design-specific setup of checks

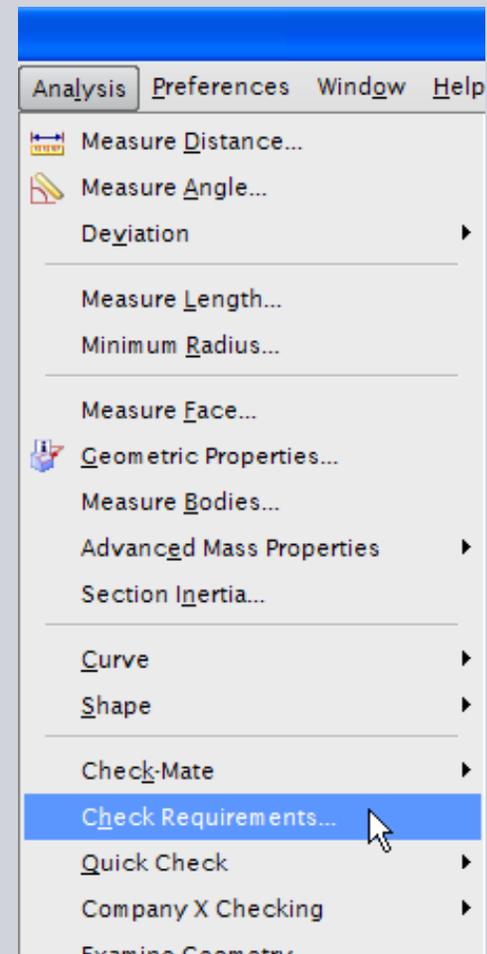
Fully automatic re-validation

Embedded in automation apps

(Vehicle Packaging Wizards, for instance.)

## RDDV Summary:

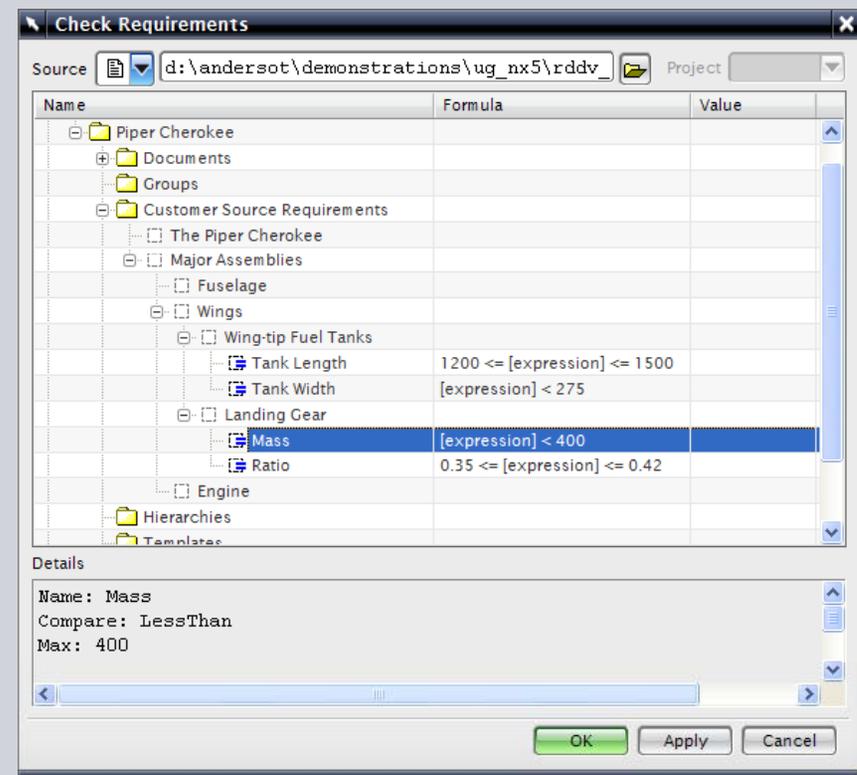
“**Check Requirements**” dialog establishes connection with a source of requirements



## RDDV Summary:

“**Check Requirements**” dialog establishes connection with a source of requirements

An NX “**Requirement**” is created, associated to the external requirement

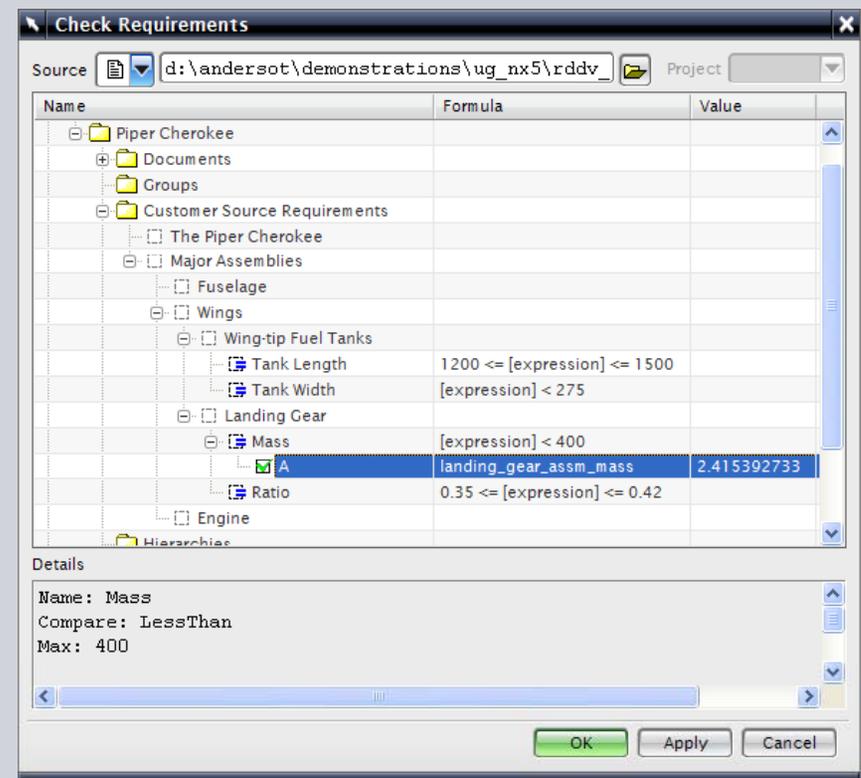


## RDDV Summary:

“**Check Requirements**” dialog establishes connection with a source of requirements

An NX “**Requirement**” is created, associated to the external requirement

One (or more) “**Checks**” are created, linking the Requirement to an NX Expression



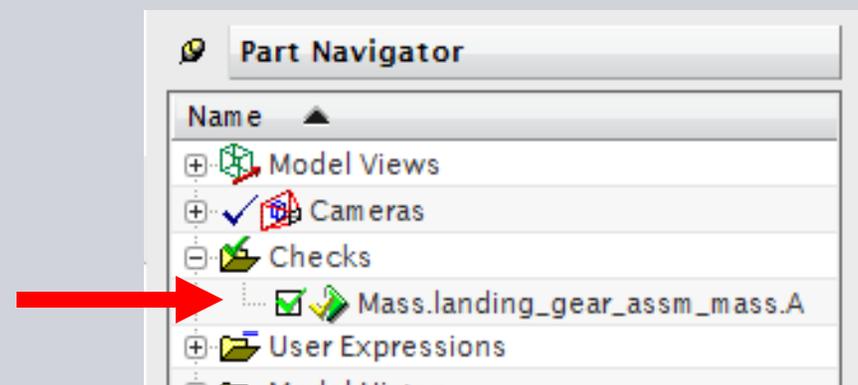
## RDDV Summary:

“**Check Requirements**” dialog establishes connection with a source of requirements

An NX “**Requirement**” is created, associated to the external requirement

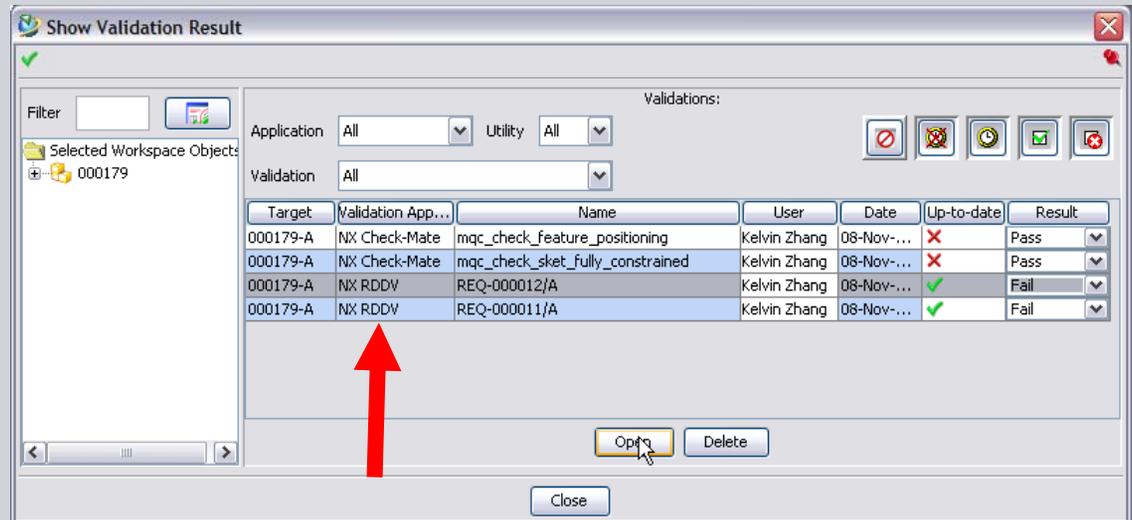
One (or more) “**Checks**” are created, linking the Requirement to an NX Expression

The RDDV Framework continually watches the model for changes and updates the status of each check.



## RDDV Summary:

RDDV results can be saved to Teamcenter alongside Check-Mate results...



...and Teamcenter workflow handlers can interpret and use RDDV results to guide workflow.

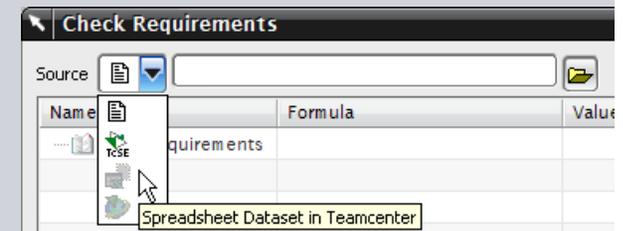
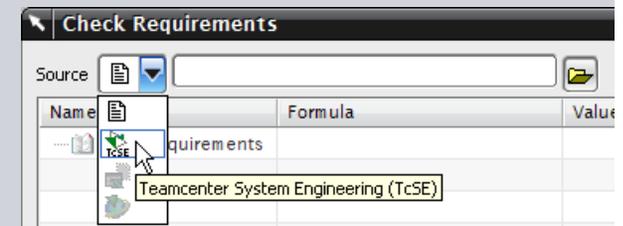
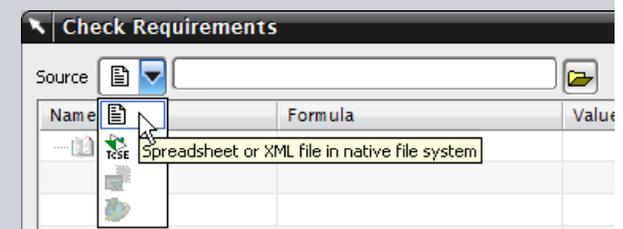
## Where can my requirements reside?

Microsoft Excel Spreadsheet  
or Requirements XML File

Teamcenter SE  
(Standalone Teamcenter Requirements)

Microsoft Excel Spreadsheet  
Managed in Teamcenter

...and now...  
Teamcenter Engineering Requirements  
(Tc2007)



## Agenda

What is RDDV?

How does it work with Teamcenter Requirements?

Demonstration

## Why use Teamcenter Requirements? *(as opposed to local spreadsheets or XML)*

Provides the basic advantages of the Managed Environment:

- Version control for requirements
- Access control for requirements

Allows you to manage requirements documents:

- In some cases, requirements start as a document.
- Documents may contain rich text, images, etc.

Provides traceability:

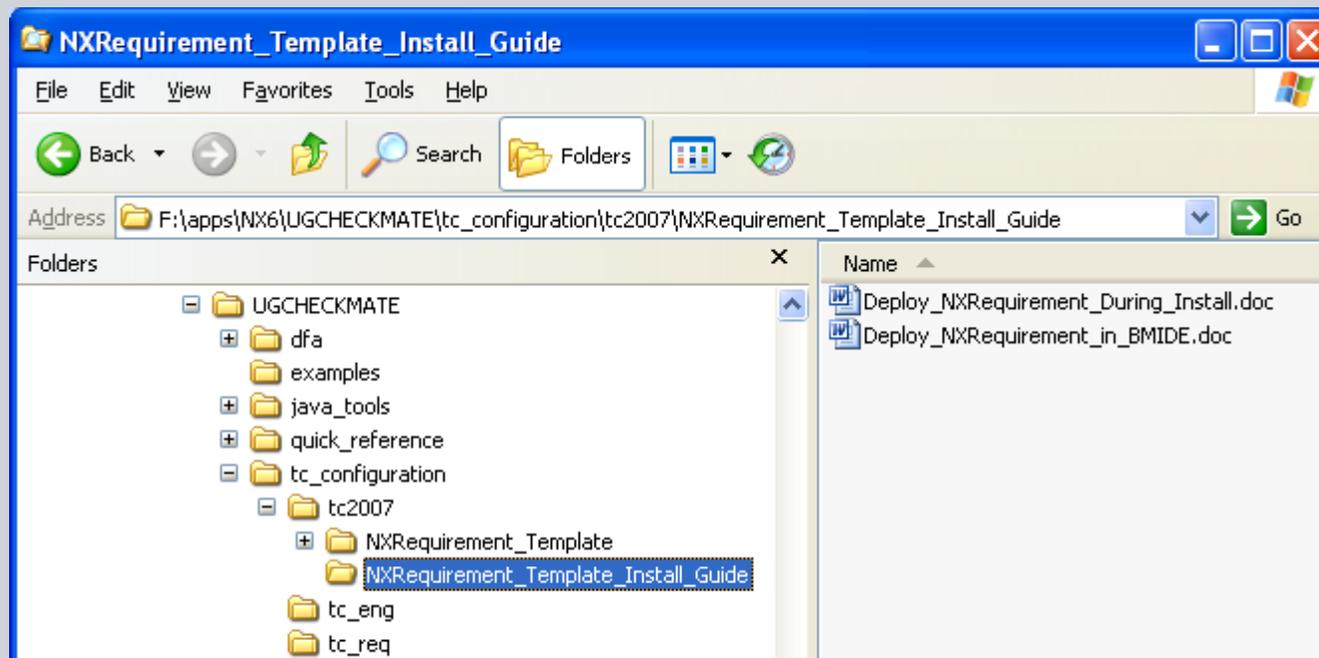
- Tracelinks can be created between requirements and NX parts
- User can view all linked Requirements in NX and Teamcenter

## Teamcenter 2007 RDDV Setup Guides

The NXRequirement item type can be added using either:

- Teamcenter Environment Manager (TEM) ← **Better for Production Server Deployment**
- Business Modeler IDE (BMIDE) ← **Better for Sandbox, QA Environment, Test Server**

Installation docs for both methods are available in the NX 6 install kit:



## Agenda

What is RDDV?

How does it work with Teamcenter Requirements?

Demonstration

# Demonstration



# Thank You!

taylor.anderson@siemens.com

