# SMARTUpdate

Improve quality and harmonize your CAD data automatically

Overview

- **Introduction**
- **Use cases**
- **How can SmartUpdate help?**
- **Benefits**
- **SmartUpdate workflow and capabilities**

- **What is SmartUpdate all about?**
- **Where does it come from and why was it initially developed?**

- **You want to use parts from existing projects**
- **You want to incorporate data from other company sites in your design**
  - Start features don't match
  - Parameters are missing
  - Layer system conflicts
  - Views are oriented incorrectly
 - Relations need to be cleaned up
  - ....
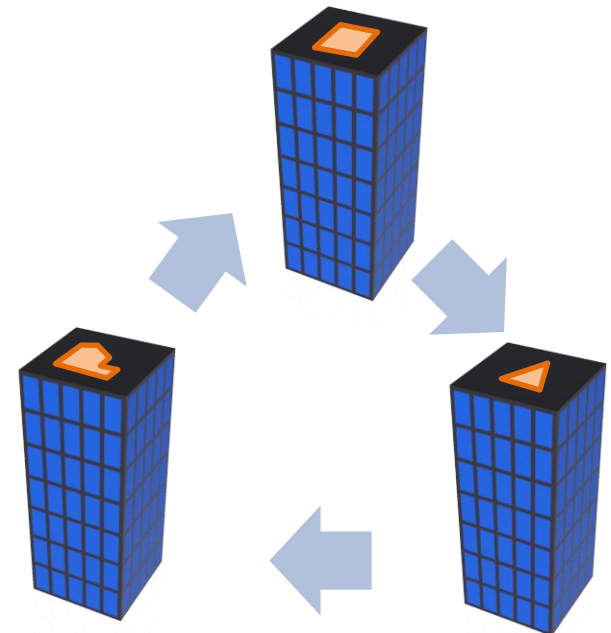
- **You want to harmonize your existing CAD data**
  - Each company site used/uses own startparts
  - There were historical changes to the startparts
  - There are no or unclear design rules
 - Design rules are not verified
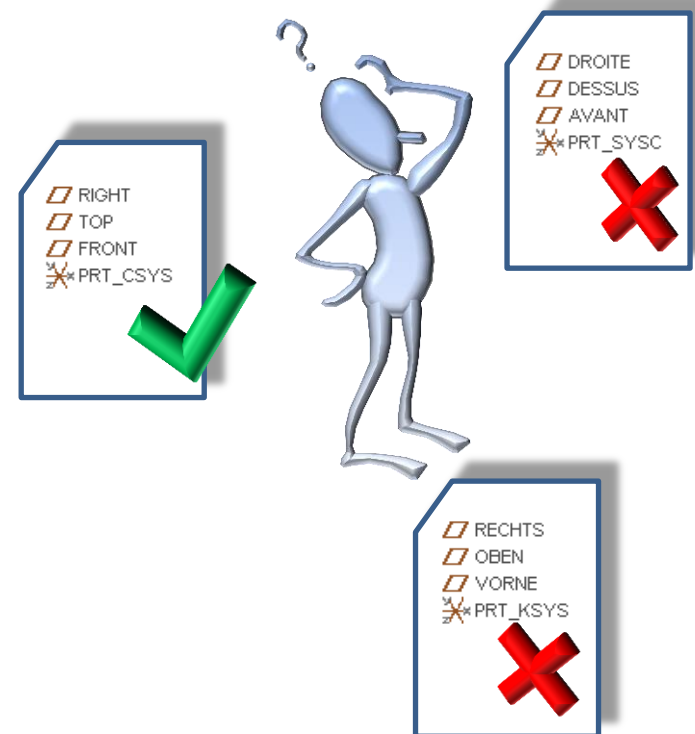
- **You are using imported objects in your design**
  - Parts contain only the geometry as import feature; datum features (planes, axes, csys) are missing or do not mach with your company standard
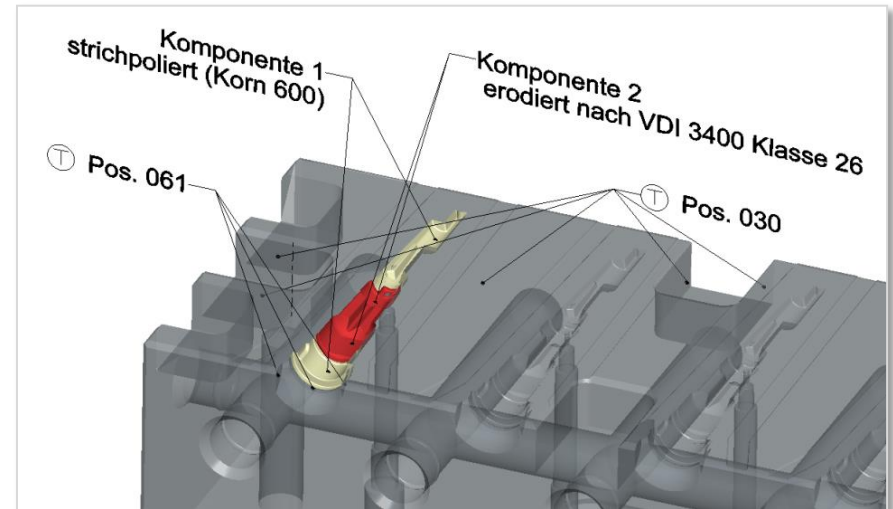 - Parameters, Layers, Orientations, etc. are missing
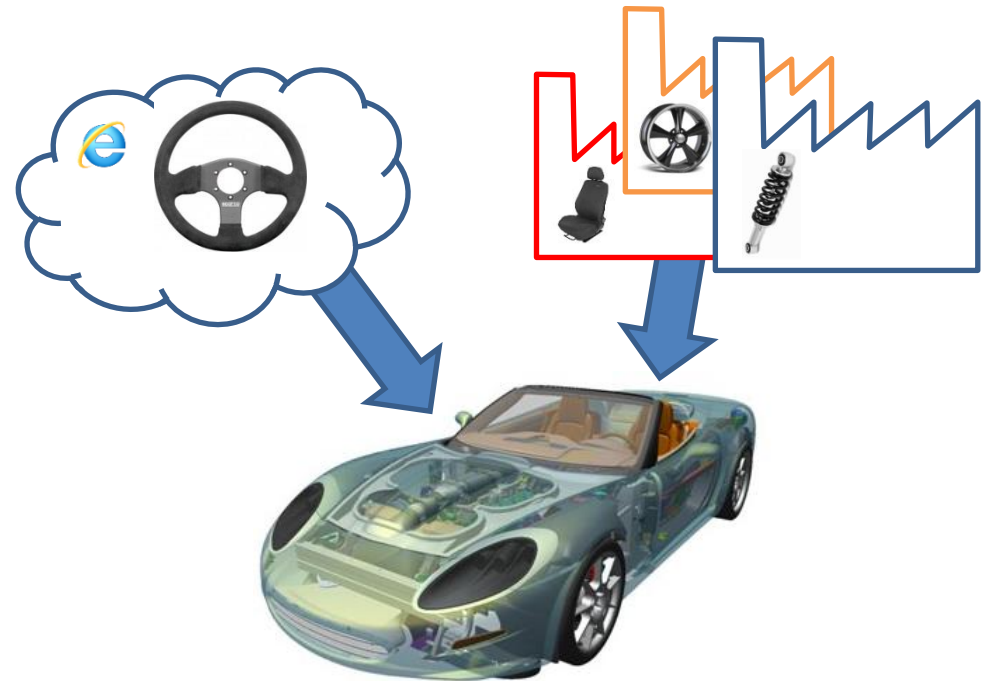
- **Your want to implement PDM-Link at your site**

- **You want to keep your Commonspace clean and tidy**
  - Parameters are not designated or not existing
  - The design rules have not been followed
  - ….

Use case: Model-Based-Definition
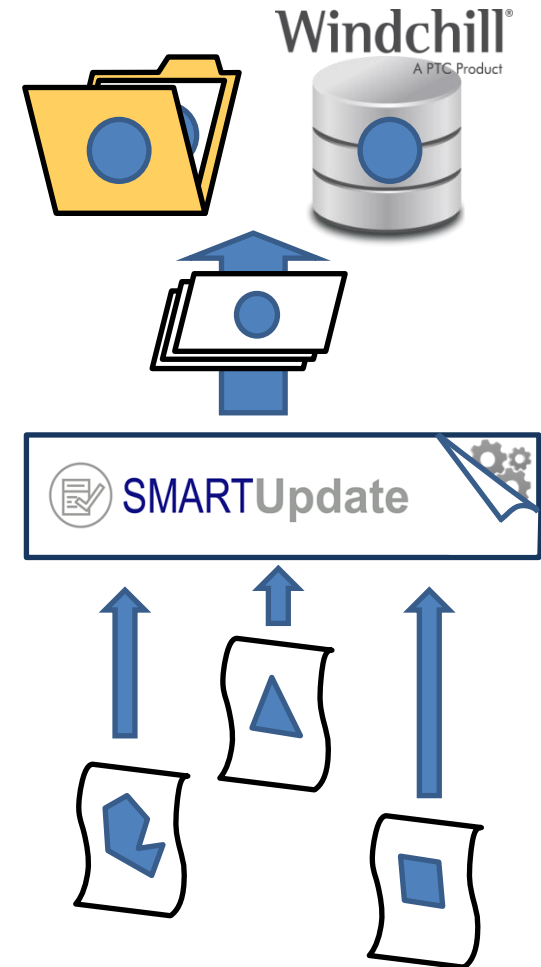
- ## You want to start with MBD
  - Existing parts do not have combined states
  - The Layer system is not supporting MBD
  - Required Orientations are missing
  - Part setup files are not correctly set
  - ….

- **You want to provide multiple tailored and sophisticated startparts to your user base**
  - This takes a lot of time to create and maintain
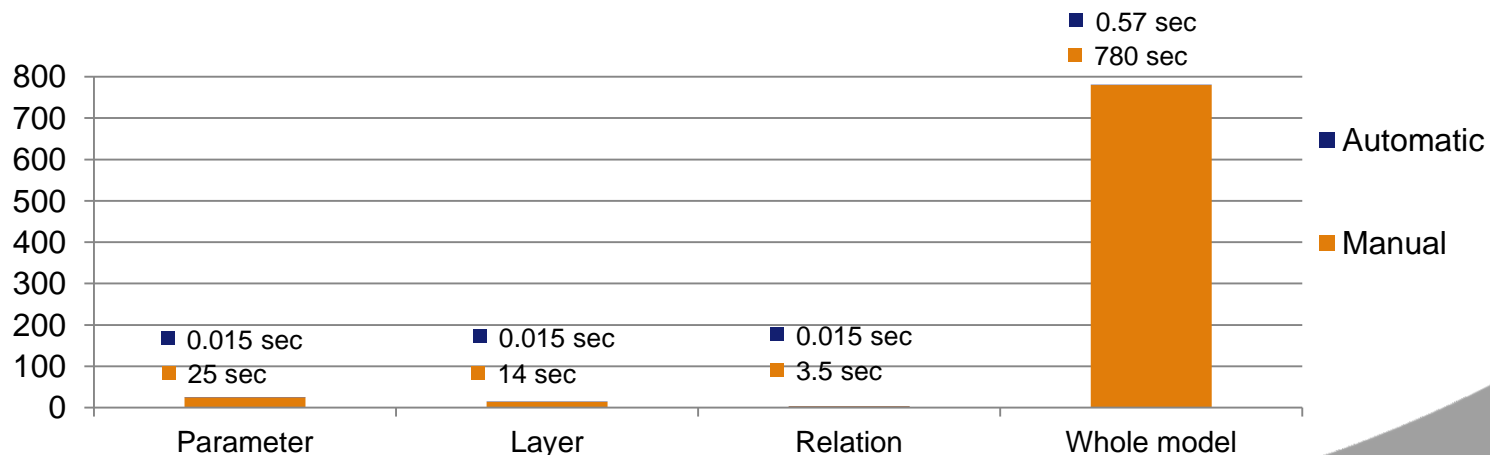 - Updating startparts becomes a nightmare

How can SmartUpdate help you?

- **It will save you a lot of time by automating many of these use cases**

- **It'll help you to apply design rules and verify them**

- **It helps the user to check and update his design before checking data into Windchill**

- **You may update recursively through the whole assembly structure**

- **It helps you and users to avoid errors during updating and harmonization**

- **Use batch mode for large data sets harmonization**

- **… and many more**

Benefit: Time savings

Manual update

- **Create/Edit a single**
    - Parameter   ~ 25 sec
    - Layer   ~ 14 sec
    - Relation   ~ 17 sec

- **Create/Edit 20 parameters, 15 layers and 3 relations**
    - 1 model   ~ 13 min
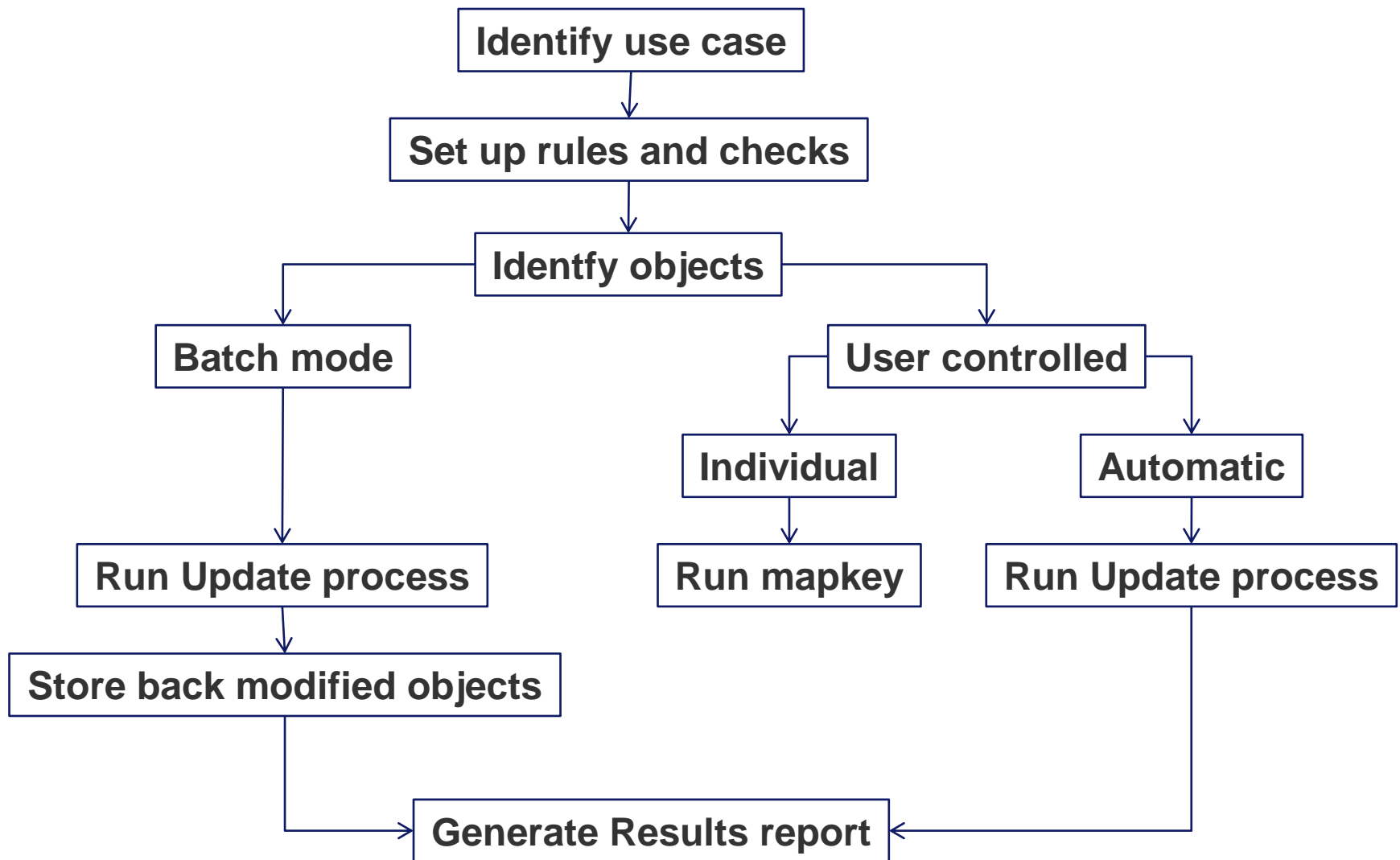   - 100 models   ~ 21 hours
    - 1000 models   ~ 26 days

B&W SmartUpdate

- **Create/Edit a single**
    - Parameter   ~ 0.015 sec
    - Layer   ~ 0.015 sec
    - Relation   ~ 0.015 sec

- **Create/Edit 20 parameters, 15 layers and 3 relations**
    - 1 model   ~ 0.57 sec
    - 100 models   ~ 57 sec
    - 1000 models   ~ 9.5 min

Chart legend: ■ 0.57 sec ■ 780 sec ■ Automatic ■ Manual

Parameter: 0.015 sec / 25 sec
Layer: 0.015 sec / 14 sec
Relation: 0.015 sec / 3.5 sec

Y-axis: 0, 100, 200, 300, 400, 500, 600, 700, 800

X-axis: Parameter, Layer, Relation, Whole model

SMARTUpdate capabilities - examples

- **Check for required model properties (Parameters, Layers, Views, Relations, etc.) and if necessary create/correct them**
- **Translate parameters, relations or drawing notes from dictionary**
- **Use it recursivelly for the whole assembly structure**
- **Use batch mode for a local folder or workspace**
- **Use it on drawings to update the .dtl file**
- **Run a ModelCHECK analysis on your model**
- **Run a mapkey during a specific check**
- **Condition the check or update for specific objects**
- **…..many, many more**

SmartUpdate Workflow

Configurator UI

User UI

Currently available Checks

Part and Assembly

- **Parameterquery**
- **Parameter**
- **Layer**
- **Orientation**
- **Feature**
- **Relation**
- **Units**
- **Model setup**
- **Combinations states**
- **Layer states**
- **Annotations**
- **Dimensions**
- **Simp Reps**
- **Material**
- **Run mapkey**
- **Run ModelCHECK**

Drawing

- **Parameterquery**
- **Parameter**
- **Layer**
- **Drawing setup**
- **Drawing Program**
- **Drawing note**
- **Run mapkey**
- **Run ModelCHECK**

Contact information

Contact: Florin Tudose,

su@buw-soft.de

Homepage: http://www.buw-soft.de/su