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Realize
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GREATER CHINA

EasyPlan装配工艺规划及在高科技电子的应用

Agenda 目录

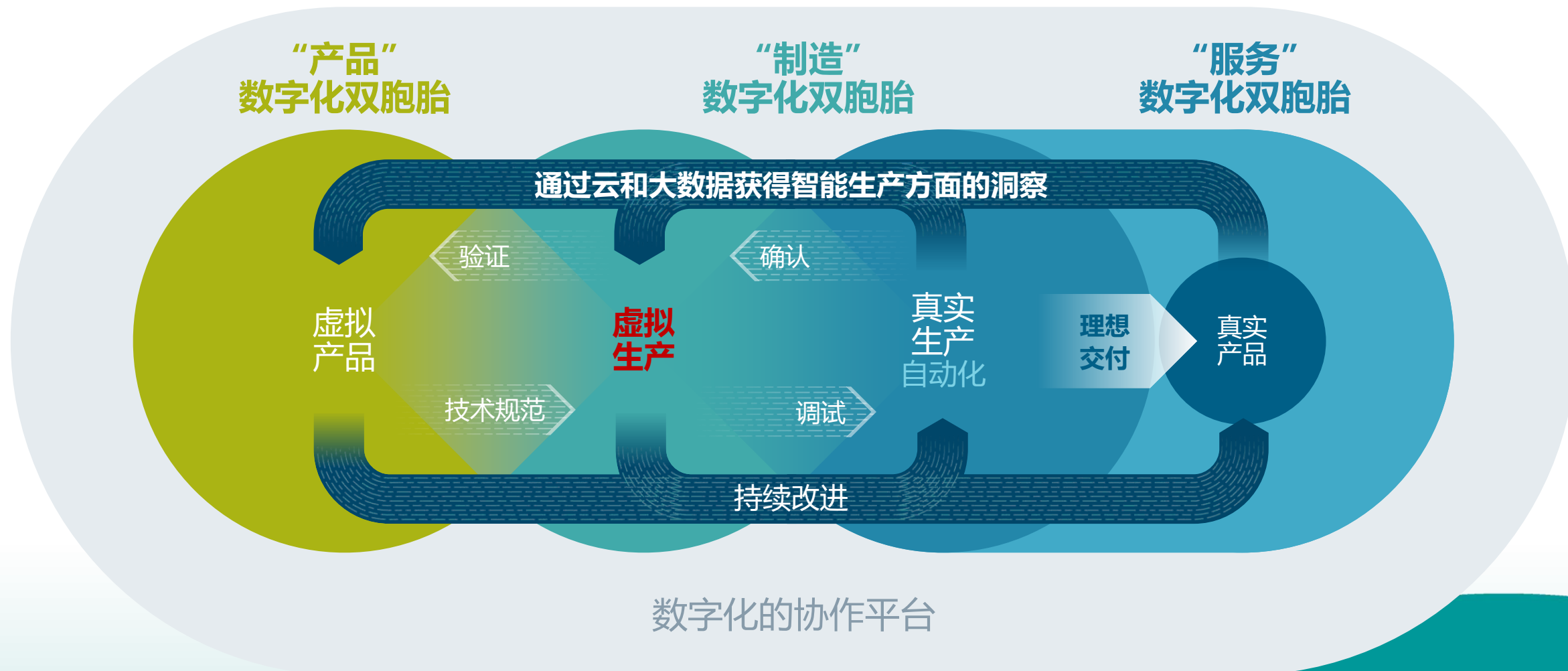
Part 1. 西门子装配工艺规划与仿真的整体能力

Part 2. 什么是Easy Plan装配工艺规划及特点

Part 3. Easy Plan装配工艺规划Demo展示

Part 4. FAQ & 交流

在西门子“数字化双胞胎”中有一个重要环扣：虚拟生产



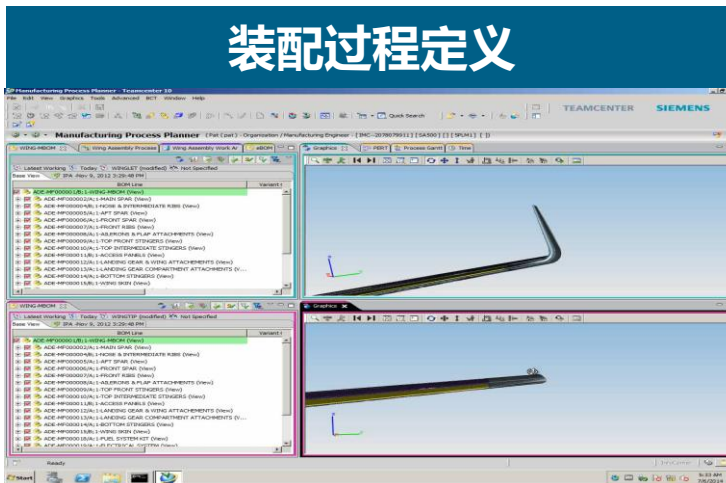
基于模型的装配工艺规划和仿真是其重要的组成部分

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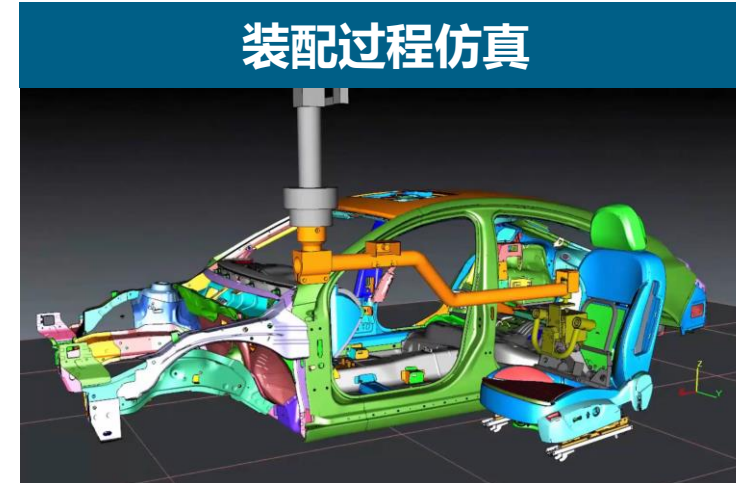
EBOM-MBOM管理



装配过程定义



装配过程仿真



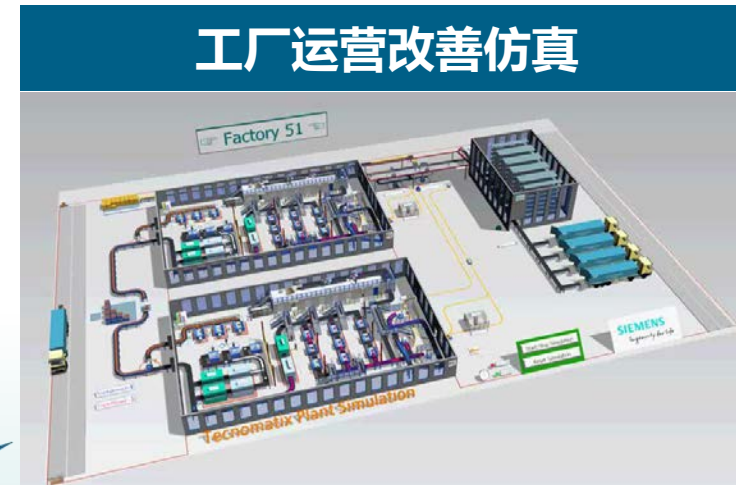
人机及机器人仿真



产线运动及虚拟调试

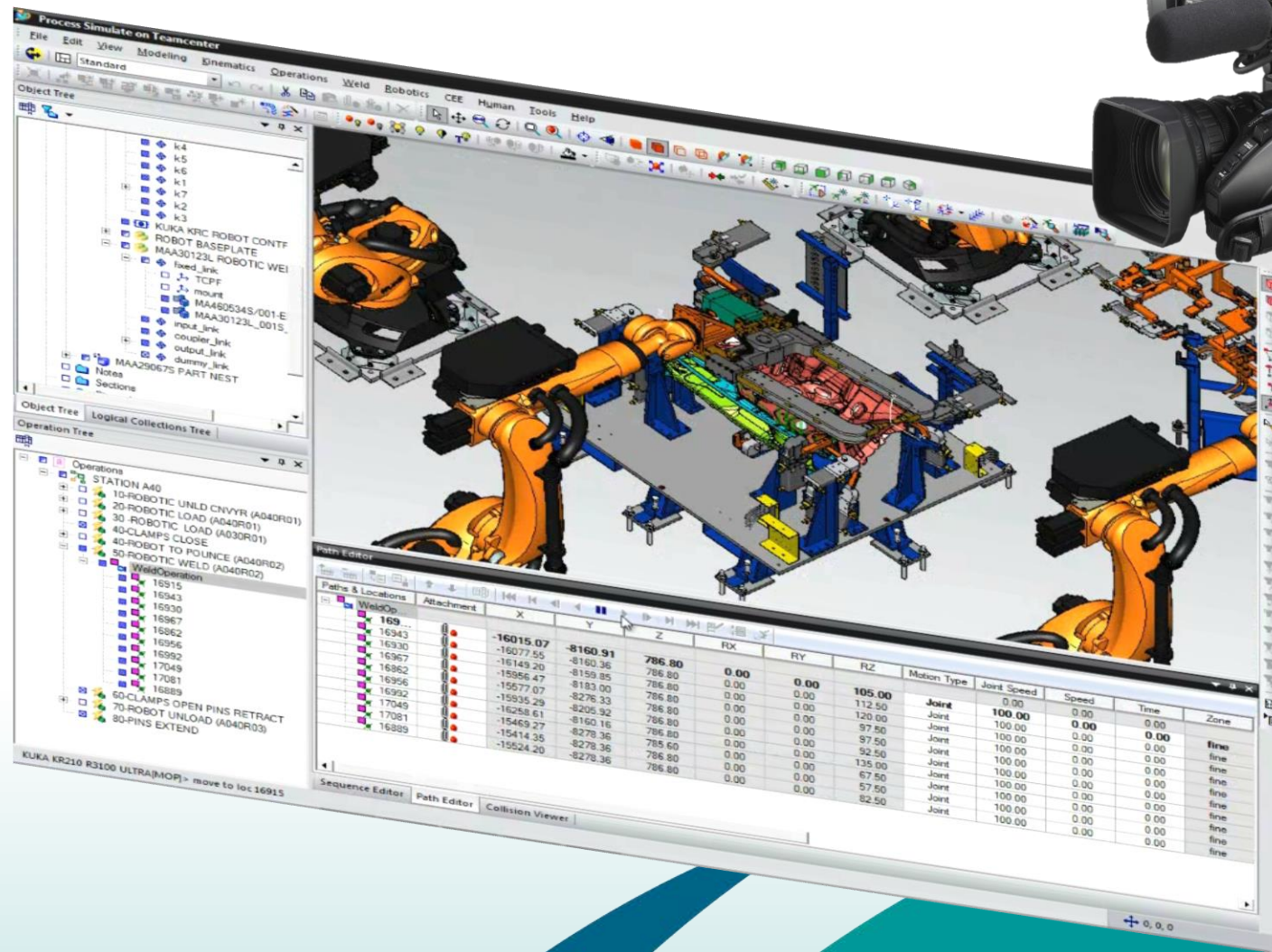


工厂运营改善仿真



怎么理解基于模型的装配工艺规划和仿真？

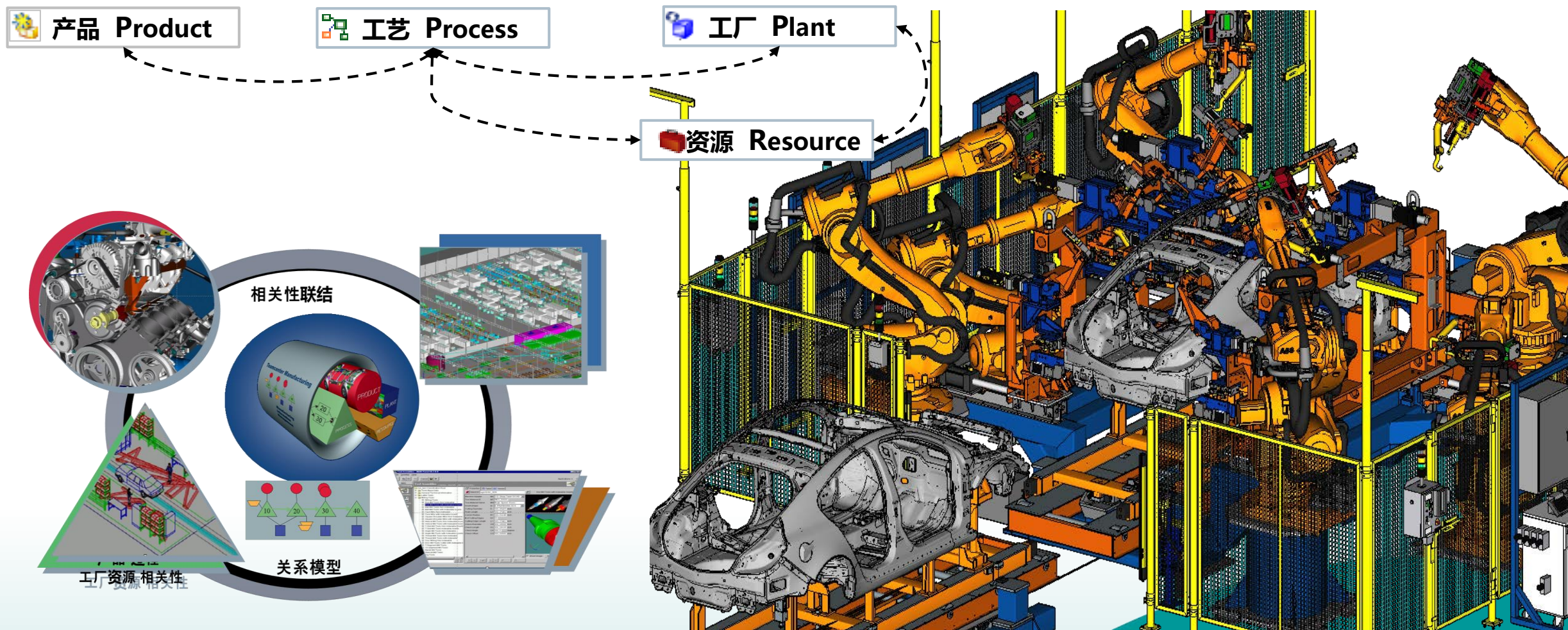
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在介绍之前我们首先需要导入几个基础说明

首先是3PR: Product、Process、Plant、Resource

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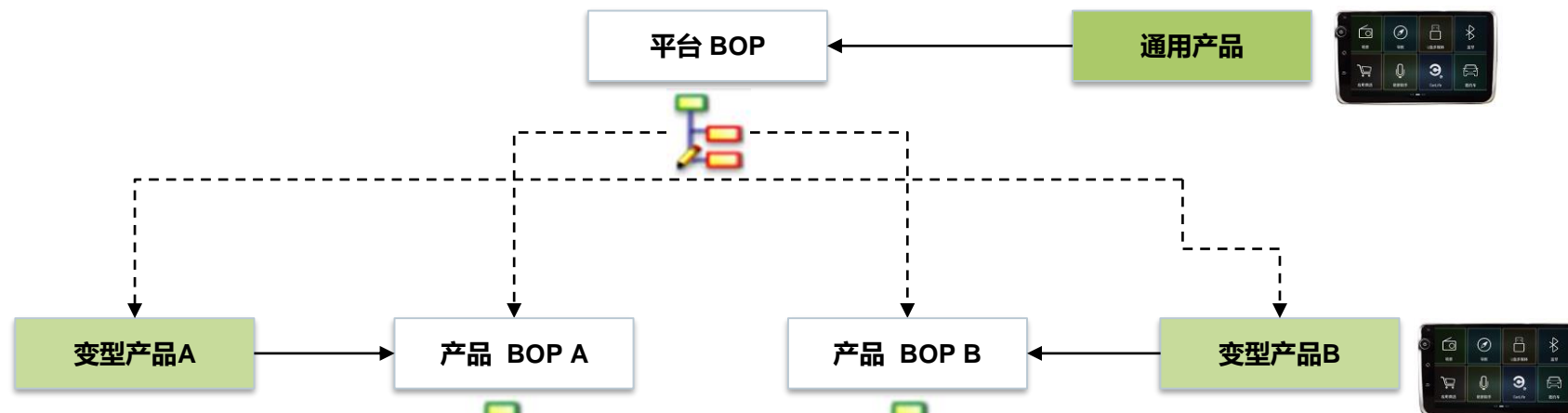


其次是多级工艺和工程师体系：平台BOP-产品BOP-工厂BOP

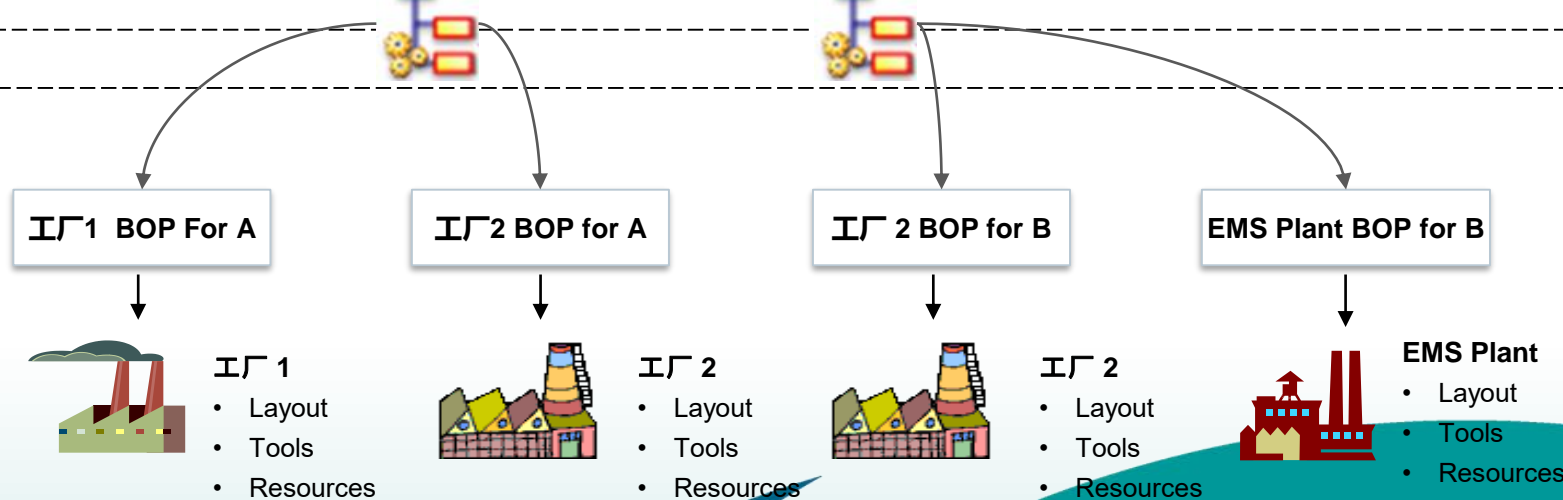
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ME/产品工艺工程师



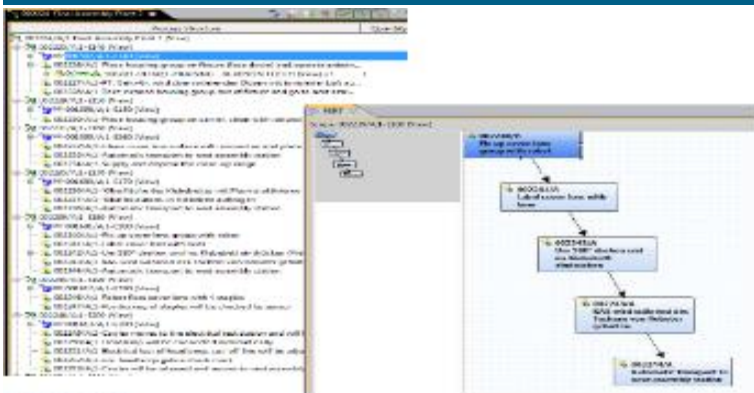
IE/车间工艺工程师



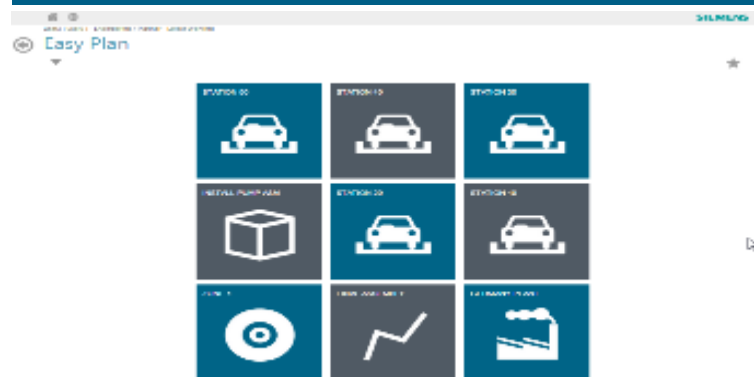
再次是西门子装配工艺规划涉及到的主要软件平台和工具

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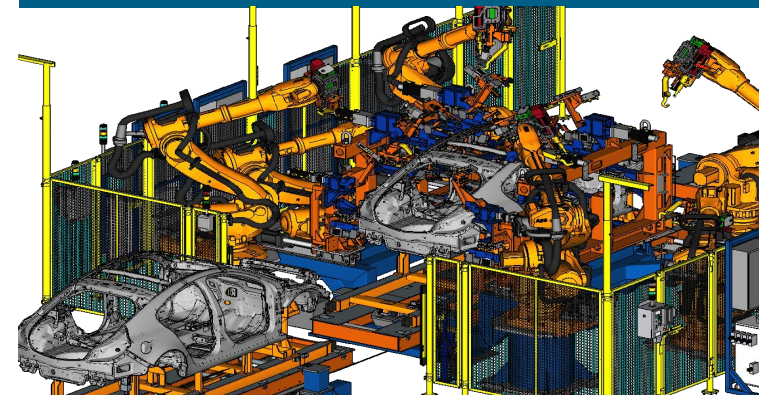
Rich Client装配工艺规划



AWC工艺浏览查看



PS 装配过程仿真



TEAMCENTER PLM平台

最后是CC: MECollaborationContext 协同关联(3PR文件夹) **SIEMENS** Ingenuity for Life

3PR —

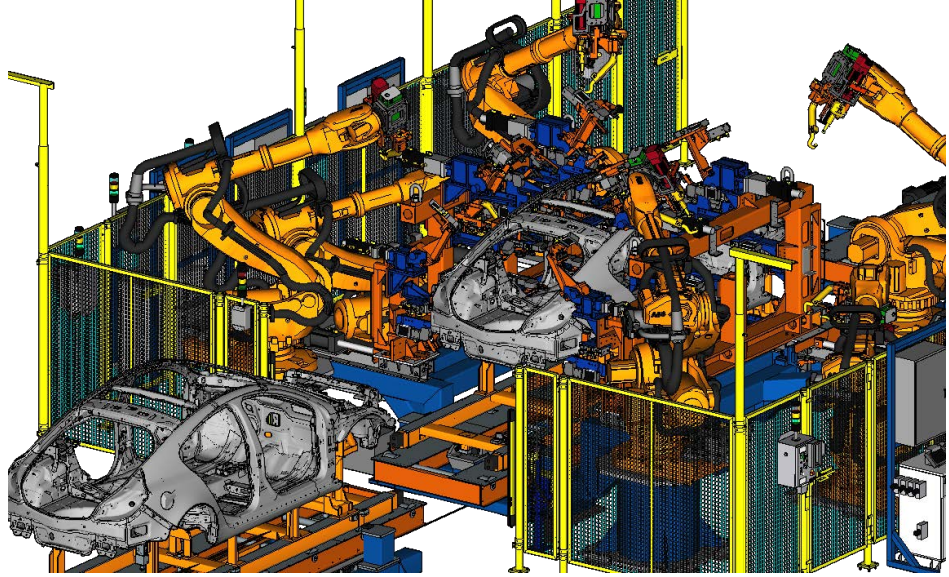
- Product
- Process
- Plant
- Resource

协同关联树

- JL. 0012. 00/A; 3-桥板组件BOM及数...
- 000695-JL. 0012. 00焊装工艺BOP
- 000707-JL. 0012. 00Weld Line
- 000707-JL. 0012. 00Weld Line

Latest Working 今天 未指定 未指定

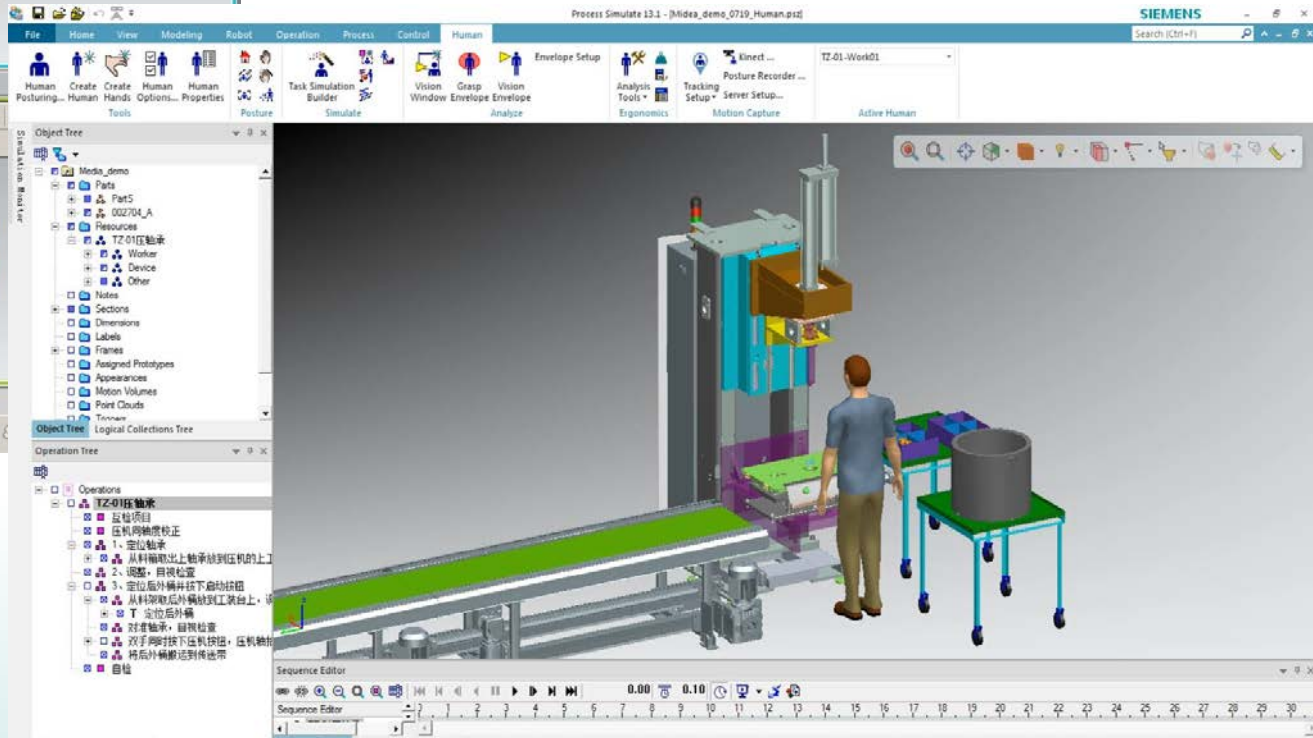
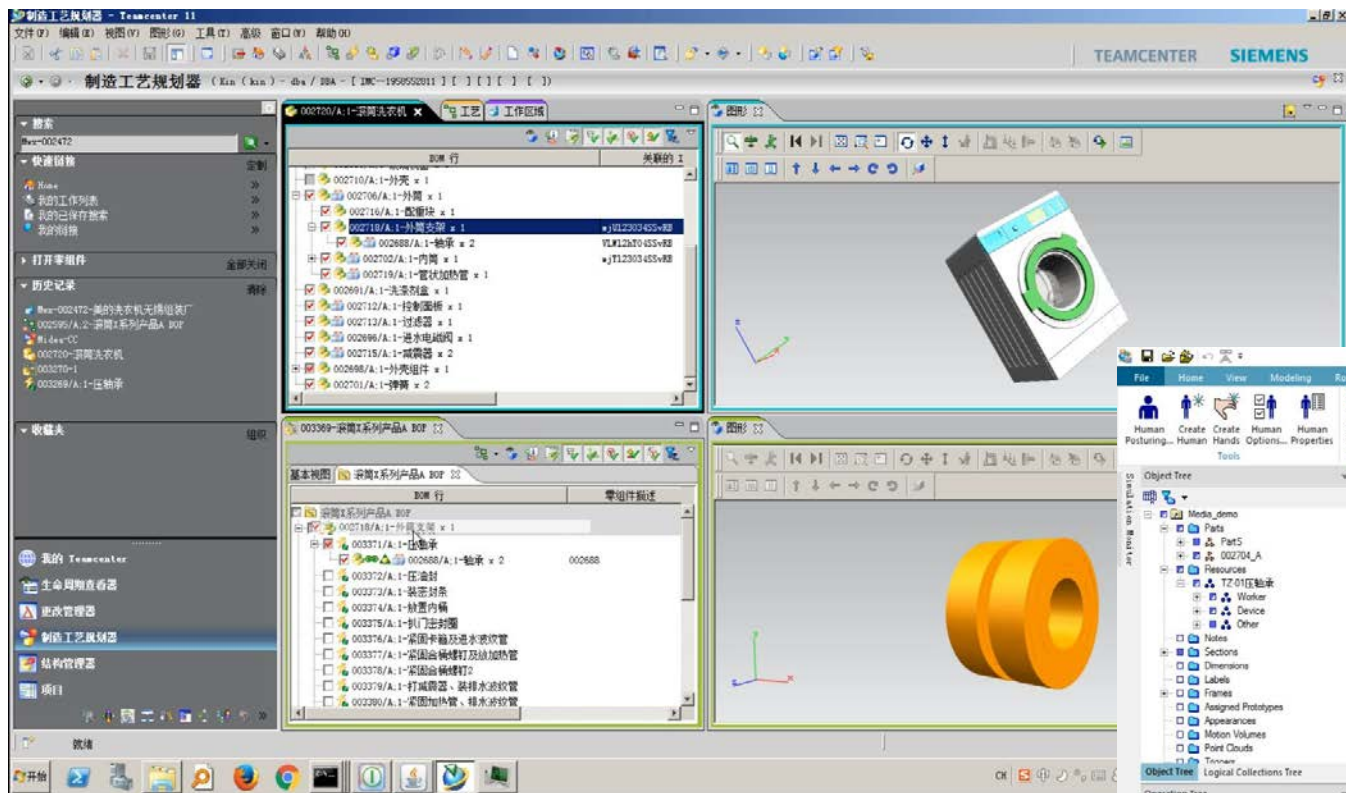
| BOM 行 | 数量 | 焊接时间 | 零组件描述 | EOC - 有效事例... | 焊接力 |
|--------------------------------|----|-----------------|--------|---------------|-----------------|
| JL. 0012. 00/A; 3-桥板组件BOM及数... | | | | 是 | |
| 000630/A; 1-转接板 | | | 000630 | 是 | |
| 000629/A; 1-桥板 | | | 000629 | 是 | |
| WeldPoint1 | | 10. 00000000... | | 是 | 0. 000000000... |
| WeldPoint2 | | 5. 000000000... | | 是 | 0. 000000000... |
| WeldPoint3 | | 30. 00000000... | | 是 | 0. 000000000... |



现在我们通过Demo简要回顾RC模式下的装配工艺规划和仿真

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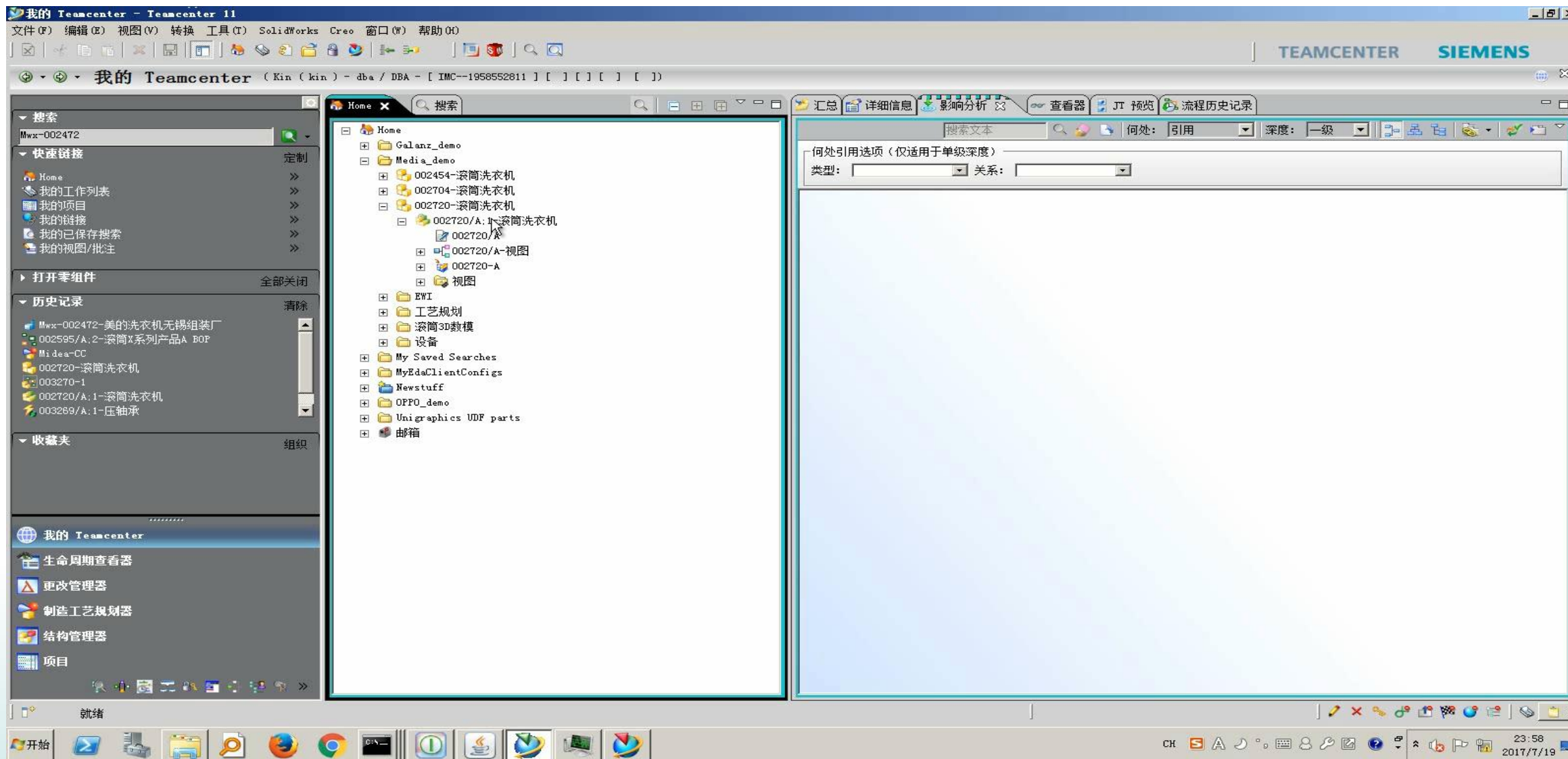


装配工艺规划Demo: Product产品模型和Plant工厂模型

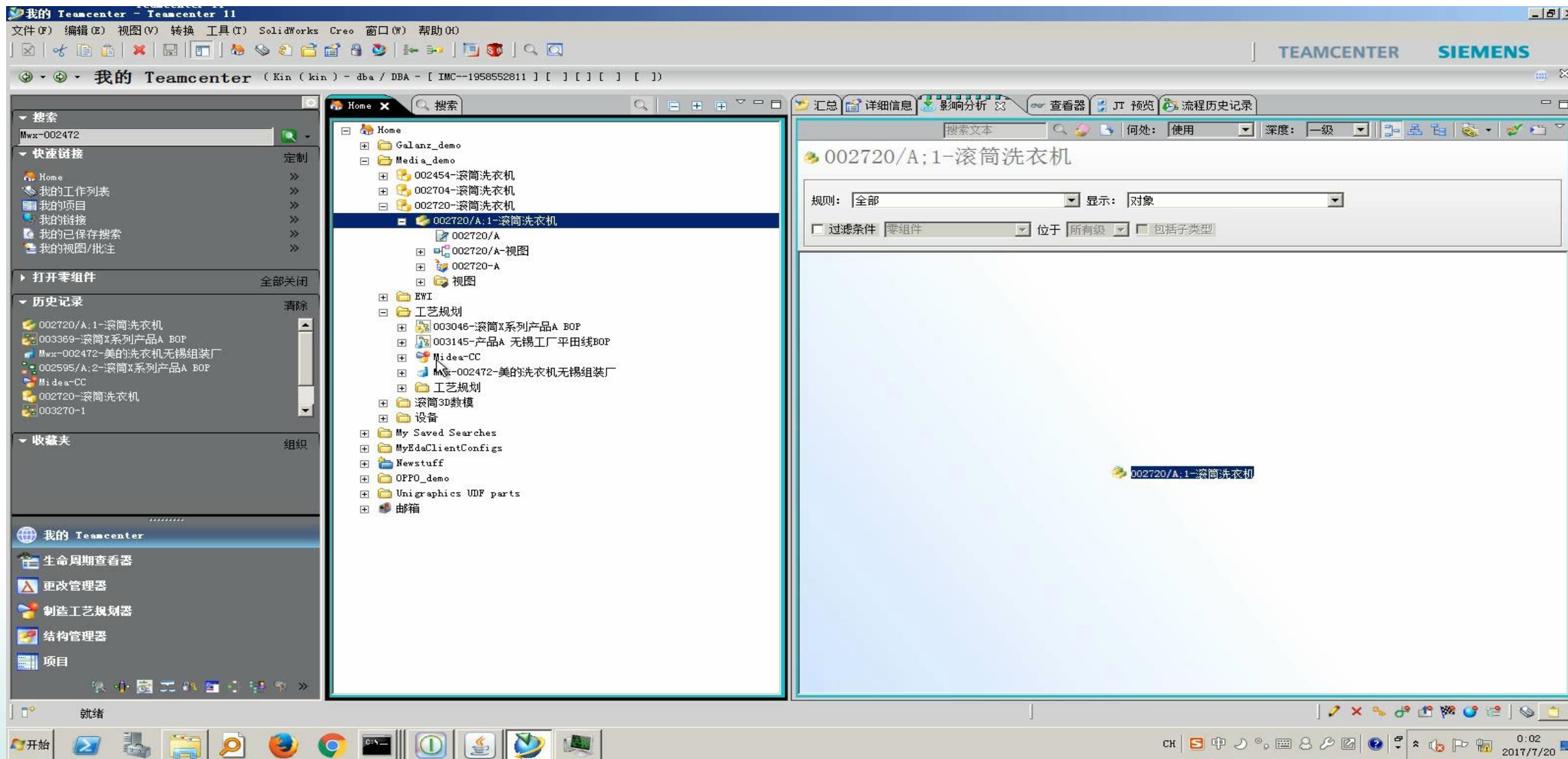
The screenshot displays the Siemens Teamcenter 11 Structure Manager interface. The main window shows a Bill of Materials (BOM) for a washing machine assembly (002704/A:1-滚筒洗衣机). The BOM is organized into a tree view on the left and a detailed table on the right. The table columns include: BOM 行 (BOM Line), 零组件类型 (Component Type), 数量 (Quantity), 度量单位 (Unit of Measure), 查找编号 (Search Number), 零组件版本状态 (Component Version Status), 自制/... (Make/Buy), 引用指示符 (Reference Indicator), 所有注释 (All Comments), 规则配置依据 (Rule Configuration Basis), HCV D - 具有传统变... (HCV D - Has Traditional Variants), EOC - 有效的... (EOC - Effective), and 具有活动的批注 (Has Active Comments).

| BOM 行 | 零组件类型 | 数量 | 度量单位 | 查找编号 | 零组件版本状态 | 自制/... | 引用指示符 | 所有注释 | 规则配置依据 | HCV D - 具有传统变... | EOC - 有效的... | 具有活动的批注 | |
|----------------------|-------|----|------|--------|---------|--------|-------|------------------------|--------|------------------|--------------|---------|-------|
| 002704/A:1-滚筒洗衣机 | 零组件 | | | | TCM 已发放 | | | | Y | FALSE | TRUE | FALSE | |
| 002701/A:1-弹簧 x 2 | 零组件 | 2 | 每个 | 已打包... | TCM 已发放 | | | UG NAME, UG REF SEI... | Y | 具有状态 (任意... | FALSE | TRUE | FALSE |
| 002717/A:1-排水管 x 1 | 零组件 | 1 | 每个 | 30 | TCM 已发放 | | | UG REF SEI, UG NAME... | Y | 具有状态 (任意... | FALSE | TRUE | FALSE |
| 002708/A:1-电机 x 1 | 零组件 | 1 | 每个 | 40 | TCM 已发放 | | | UG REF SEI, UG NAME... | Y | 具有状态 (任意... | FALSE | TRUE | FALSE |
| 002703/A:1-皮带 x 1 | 零组件 | 1 | 每个 | 50 | TCM 已发放 | | | UG NAME, UG REF SEI... | Y | 具有状态 (任意... | FALSE | TRUE | FALSE |
| 002705/A:1-水龙头 x 1 | 零组件 | 1 | 每个 | 60 | TCM 已发放 | | | UG REF SEI, UG NAME... | Y | 具有状态 (任意... | FALSE | TRUE | FALSE |
| 002699/A:1-前窗 x 1 | 零组件 | 1 | 每个 | 70 | TCM 已发放 | | | UG REF SEI, UG NAME... | Y | 具有状态 (任意... | FALSE | TRUE | FALSE |
| 002689/A:1-玻璃视窗 x 1 | 零组件 | 1 | 每个 | 80 | TCM 已发放 | | | UG REF SEI, UG NAME... | Y | 具有状态 (任意... | FALSE | TRUE | FALSE |
| 002710/A:1-外壳 x 1 | 零组件 | 1 | 每个 | 90 | TCM 已发放 | | | UG NAME, UG REF SEI... | Y | 具有状态 (任意... | FALSE | TRUE | FALSE |
| 002706/A:1-外筒 x 1 | 零组件 | 1 | 每个 | 100 | TCM 已发放 | | | UG NAME, UG REF SEI... | Y | 具有状态 (任意... | FALSE | TRUE | FALSE |
| 002691/A:1-洗涤剂盒 x 1 | 零组件 | 1 | 每个 | 120 | TCM 已发放 | | | UG NAME, UG REF SEI... | Y | 具有状态 (任意... | FALSE | TRUE | FALSE |
| 002712/A:1-控制面板 x 1 | 零组件 | 1 | 每个 | 130 | TCM 已发放 | | | UG NAME, UG REF SEI... | Y | 具有状态 (任意... | FALSE | TRUE | FALSE |
| 002713/A:1-过滤器 x 1 | 零组件 | 1 | 每个 | 140 | TCM 已发放 | | | UG REF SEI, UG NAME... | Y | 具有状态 (任意... | FALSE | TRUE | FALSE |
| 002696/A:1-进水电磁阀 x 1 | 零组件 | 1 | 每个 | 150 | TCM 已发放 | | | UG REF SEI, UG NAME... | Y | 具有状态 (任意... | FALSE | TRUE | FALSE |
| 002715/A:1-减震器 x 2 | 零组件 | 2 | 每个 | 已打包... | TCM 已发放 | | | 已打包的注释 | Y | 具有状态 (任意... | FALSE | TRUE | FALSE |
| 002698/A:1-外壳组件 x 1 | 零组件 | 1 | 每个 | 170 | TCM 已发放 | | | UG NAME, UG REF SEI... | Y | 具有状态 (任意... | FALSE | TRUE | FALSE |

装配工艺规划Demo：基于模型的产品系列BOP创建



装配工艺规划Demo：基于模型的工厂BOP及仿真



装配工艺规划Demo: AWC模式下的工艺浏览查看

The screenshot displays the Siemens Teamcenter software interface for manufacturing process planning. The main window shows a BOM structure for '滚筒X系列产品A BOP' (Roller X Series Product A BOP). The BOM items are listed as follows:

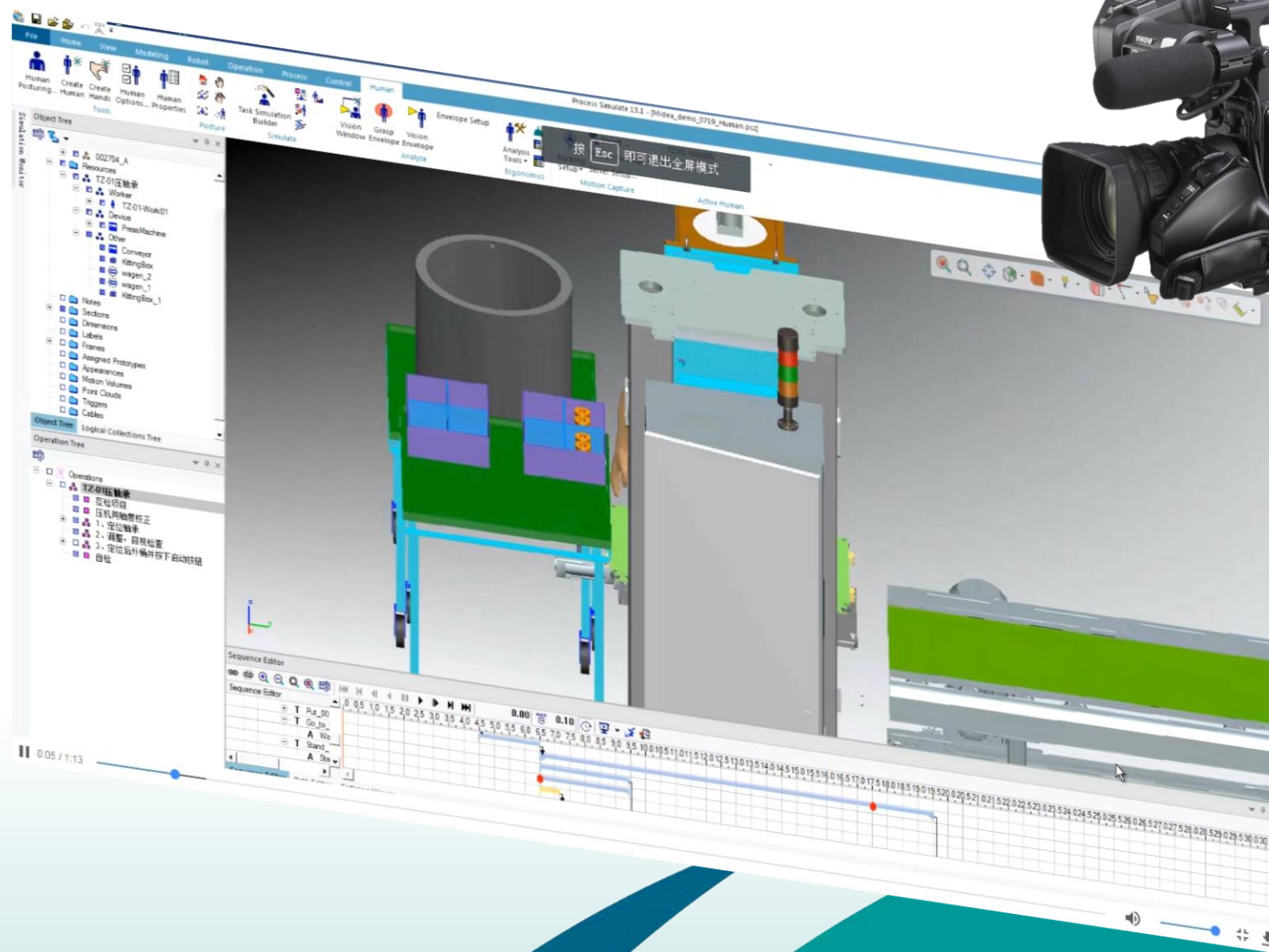
| BOM 行 | 零组件描述 | 逻辑指示符表示 |
|-------------------|-------|---------|
| 003047/A:1-桶装线 | | |
| 003064/A:1-总装1线 | | |
| 003081/A:1-总装2线 | | |
| 003101/A:1-检测线 | | |
| 003110/A:1-洗涤剂盒组装 | | |
| 003112/A:1-门部装 | | |
| 003114/A:1-控制面板部装 | | |
| 003116/A:1-总装3线 | | |
| 003136/A:1-冲压线 | | |

A second window, titled '产品A 无锡工厂平田线BOP', displays a detailed process list for the assembly:

| BOM 行 | 零组件类型 | 零组件描述 |
|----------------------------|-----------|--------|
| 003145/A:1-产品A 无锡工厂平田线BOP | 工厂 BOP | |
| 003147/A:1-压轴承工位工艺 | 工位 | |
| wx-002476/A:1-工位01 压轴承 | MEStation | 002476 |
| 003269/A:1-压轴承 | MEOP | |
| 002688/A:1-轴承 | 零组件 | 002688 |
| 003150/A:1-料箱 | 资源 | |
| 003151/A:1-压油封工位工艺 | 工位 | |
| 003152/A:1-装密封条工位工艺 | 工位 | |
| 003153/A:1-放置内桶工位工艺 | 工位 | |
| 003154/A:1-放合桶螺钉工位工艺 | 工位 | |
| 003155/A:1-坚固合桶螺钉及放加热管工位工艺 | 工位 | |
| 003156/A:1-打减震器及装排水波纹管工位工艺 | 工位 | |
| 003157/A:1-装配皮带轮工位工艺 | 工位 | |
| 003158/A:1-装配电机工位工艺 | 工位 | |
| 003159/A:1-装配皮带及翻桶工位工艺 | 工位 | |
| 003160/A:1-放前平衡块及垫片工位工艺 | 工位 | |

小结：西门子基于模型的装配工艺规划和仿真技术 让工艺工程师在虚拟环境中“导演”装配工艺

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Part 1. 西门子装配工艺规划与仿真的整体能力

Part 2. 什么是Easy Plan装配工艺规划及特点

Part 3. Easy Plan装配工艺规划Demo展示

Part 4. FAQ & 交流

什么是Easy Plan(EP)装配工艺规划?

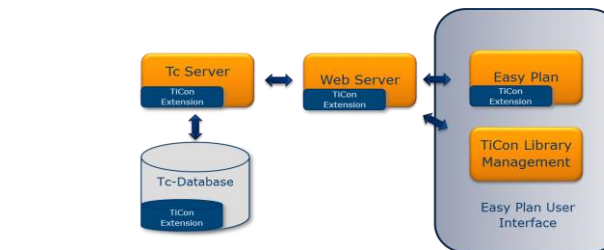


一种构建在Teamcenter AWC上的针对离散制造业的B/S轻量级制造工艺规划解决方案

The screenshot displays the Siemens Easy Plan interface for a 'REAR SUSPENSION' assembly. It features a navigation pane on the left with sections for ST 10 through ST 50, each with a progress bar and numerical values. The main area shows a table of operations:

| # | REV NAME | ITEM ID | ALLOCATED TIME | VARIANT CONDITIONS | REV DE |
|----|--------------------------------|---------|----------------|--------------------|--------|
| 1 | INSTALL FRONT SUSPENSION LH- | 010611 | 43.2 | | |
| 2 | INSTALL FRONT SUSPENSION LH- | 010614 | 6.12 | | |
| 3 | INSTALL FRONT SUSPENSION LH- | 012931 | 43.2 | | |
| 4 | INSTALL FRONT SUSPENSION LH- | 012932 | 6.12 | | |
| 5 | LOAD SUSPENSION TO RACK | 012933 | 0 | | |
| 6 | PLUG (RH) CABLE ABS TO HARNI-- | 012941 | 9 | | |
| 7 | INSTALL (RH) ACCELEROMETER T-- | 012942 | 3 | | |
| 8 | INSTALL RH STEERING KNUCKLE-- | 012943 | 2 | | |
| 9 | INSTALL RH STEERING KNUCKLE-- | 012944 | 2 | | |
| 10 | INSTALL RH HUB BEARING ASSM | 012945 | 7 | | |

On the right, an 'Operations Library' panel shows a list of operations categorized into 'Engine Assembly operations' (A-F) and 'Door assembly operations' (817, 354).



- Fully integrated AddOn
- Business Modeller IDE used for Backend Extensions
- Active Workspace and EasyPlan as a Platform for the User Frontend
- Ordering and Distribution of TiCon Licences via MTM

The screenshot shows the 'Auto Placement Station' interface. It includes a table of operations with columns for 'OBJECT STRING', 'REV NAME', 'VARIANT CO...', 'BL REV LAST...', 'ITEM ID', and 'REV DESCRIP...'. The table lists several operations related to 'TSMT' (e.g., 'TSMT Material', 'TSMT Kitting', 'SN Registration', 'TSMT SN').

EasyPlan在2019年将陆续发布四个版本迭代



*快速的版本发布，就像手机&APP几乎每周都会持续更新版本一样。让客户能及时使用到最新的功能。

Teamcenter Release Schedule

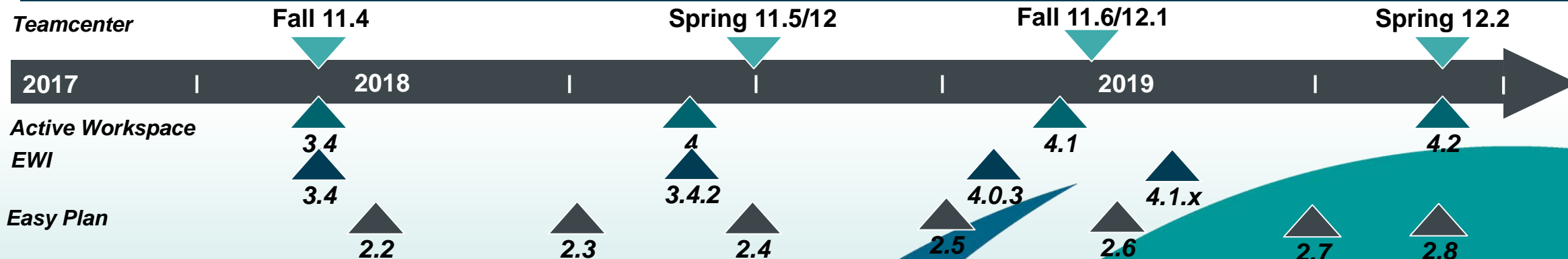
- Teamcenter 11.5 & 12 Spring 2018
- Teamcenter 11.6 & 12.1 Fall 2018
- Teamcenter 12.2 Spring 2019
- Teamcenter 12.3 Fall 2019

Active Workspace Release Schedule

- Active Workspace 3.4 Fall 2017
- Active Workspace 4 Spring 2018
- Active Workspace 4.1 Fall 2018
- Active Workspace 4.2 Spring 2019

Manufacturing Specific Release Schedule

- Easy Plan 2.6 Q4 2018
- Easy Plan 2.7 Q1 2019
- Easy Plan 2.8 Q2 2019
- Easy Plan 2.9 Q3 2019
- Easy Plan 2.10 Q4 2019
- EWI 3.4.2 Spring 2018
- EWI 4.0.3 Fall 2018
- EWI 4.1.x Q1 2019
- EWI 4.2 Spring 2019
- EWI 4.3 Fall 2019



Easy Plan陆续具备如下功能要素



装配工艺规划

- 定义和应用基于可配置变量的产品BOP
- 使用MTM&TiCon定义详细的工时节拍
- 通过线平衡提高产线&工人的生产力
- 将产品BOP方便的分解到工厂BOP
- 工艺变更管理：BOM/BOP对比分析

电子作业指导

- 支持AR增强现实技术的电子作业指导
- 支持电子作业指导的离线浏览
- 支持显示和应用GD&T数据的采集
- 支持可穿戴式设备
-

TC平台更多功能支持

- 支持TC项目计划管理的导入和应用
- 支持从分类资源库中搜索R资源
- 易安装易部署
-

扩展在船舶行业的应用

- 大装配3D模型查看
- 多条对象的批量编辑
- 交叉活动可视化
- EWI增强
-

电子作业指导在线制作

- 基于Web的轻量化3D模型浏览
- 在线的文本编辑、占位符插入等
- 变更管理(识别变更、比较和协调)
-

多BOM管理

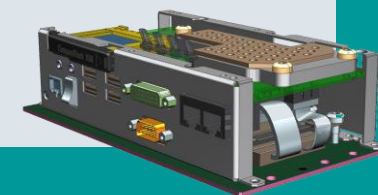
- MBOM管理在AWC
- MBOM创建、编辑
- EBOM和MBOM的对比及关联更新
-

平台能力扩展

- 提升客制化的能力
- 支持通过Deployment Center部署
- 与AWC保持同步更新
-

电子行业装配工艺规划

- 基于模板的BOM和BOP自动创建
- PCB和壳体装配工艺规划
- 集成Valor的PCB工艺i规划(工艺准备)
-



Easy Plan能帮助多级工艺体系下的工艺工程师提升工作效率

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ME/产品工艺工程师

如何快速编制标准规范化的、可配置的、方便协同和更改同步的产品平台级制造工艺

IE/车间工艺工程师

耗费大量时间在信息获取上将产品工艺转化为基于产线角度的制造工艺并保持更新

SFO/车间工人

操作作业指导书非常不直观并且经常不是最新有效版本尤其批次变更让人头痛不已

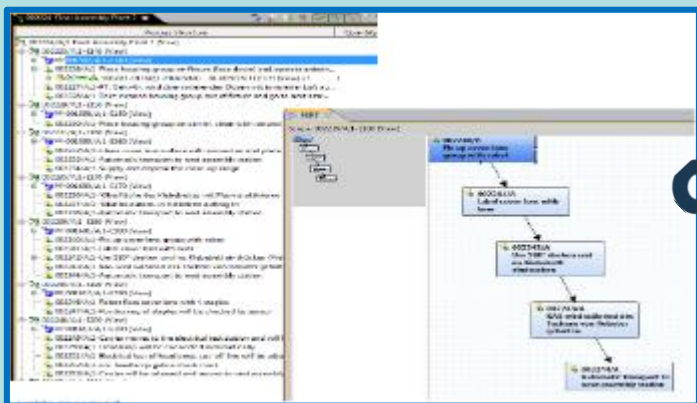
PM/管理层

从产品设计、产品工艺、车间工艺、到车间操作层信息传递不畅通，变更不及时

帮助产品工艺工程师和车间现场工艺工程师之间的协作

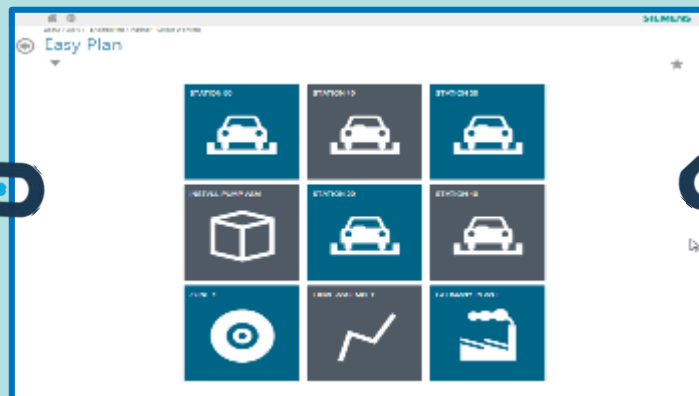


产品工艺工程师



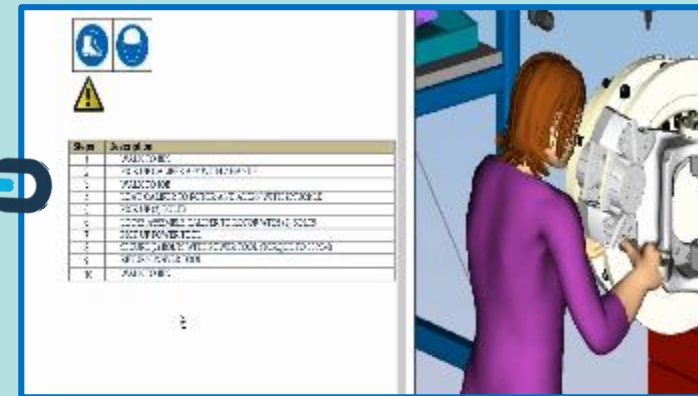
- 制造BOM和工艺过程定义
- 产品平台级工艺BOP规划
- 制造过程虚拟仿真验证
- 工艺过程文档的编制

车间工艺工程师



- 操作员指令编写
- 详细的时间分析
- 生产计划的定义
- 线平衡

车间现场操作工人



- 操作员指令访问
- 报告
- 新员工培训
- 问题捕获和问题报告启动

TEAMCENTER PLM PLATFORM

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Easy Plan 装配工艺规划 Demo 场景

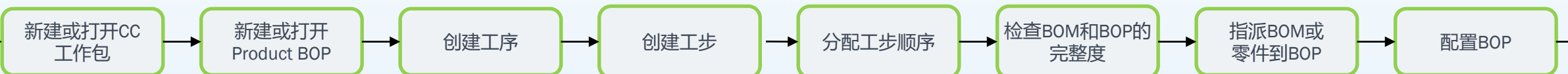
产品工艺工程师 (ME)



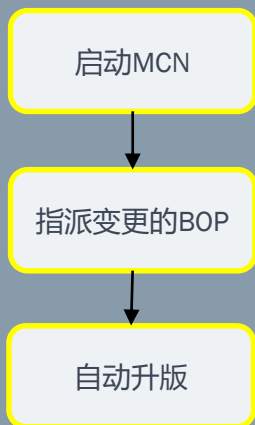
产品设计及产品图档



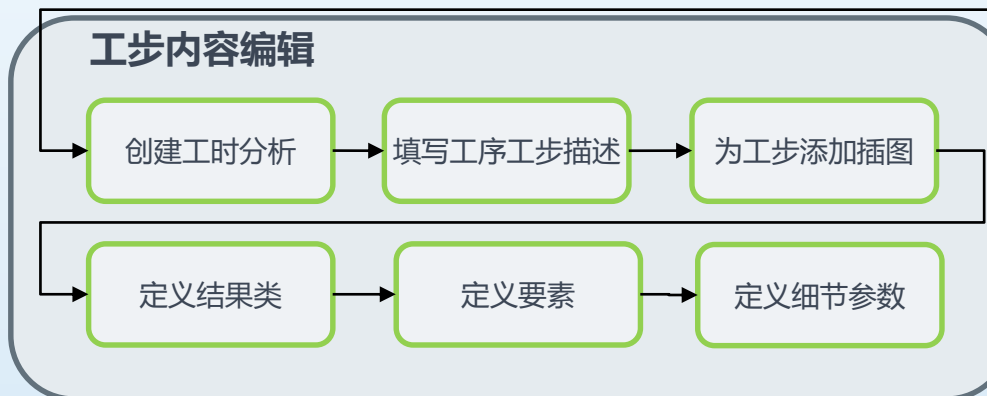
产品工艺工程师 - Product BOP



变更管理



工步内容编辑

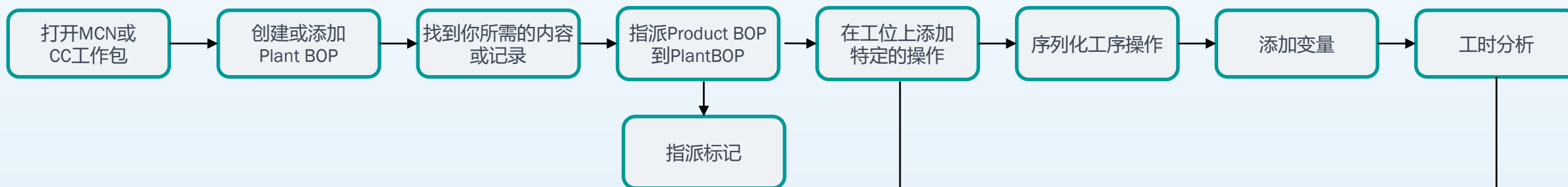


Easy Plan装配工艺规划Demo场景

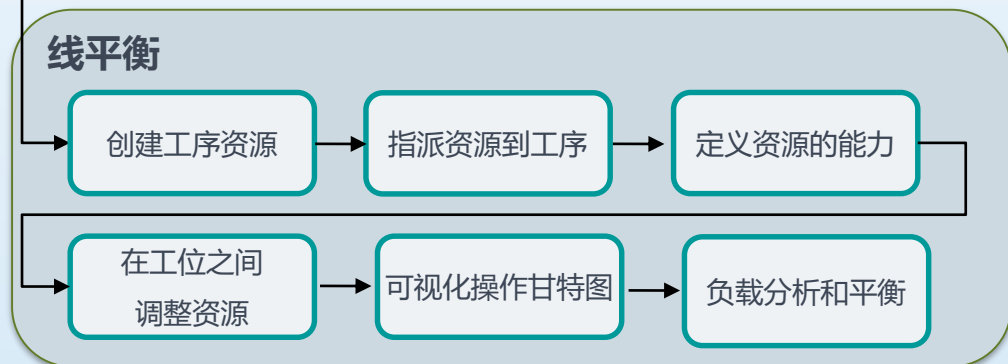
车间工艺工程师(IE)



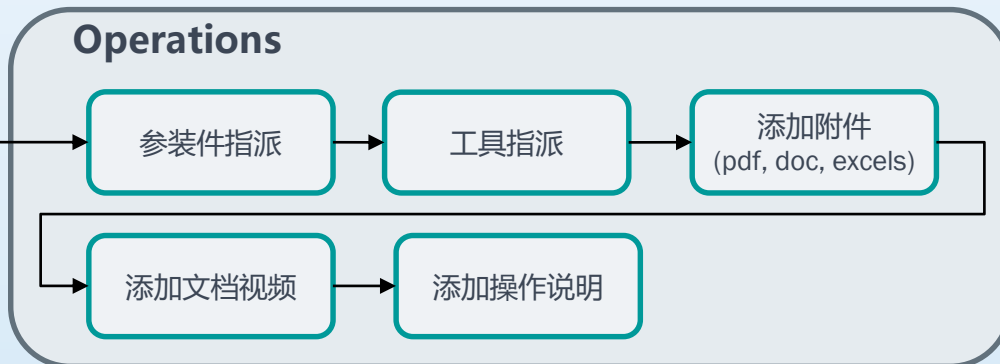
车间工艺工程师



线平衡



Operations



主要功能Demo展示：ME创建工作包并维护产品BOP



Home Settings

Smith John (smith) - Manufacturing/Manufacturing Engineering - Latest Working

SIEMENS

Select: Owner Select: Category

Advanced Search

Production Process Planning

INBOX

0 / 0 / 0
New Total Past Due

HOME FOLDER

HELP

PRINTOUTS

NEW PART

FAVORITES

MY STUFF

CREATE DOCUMENT

SAVED SEARCHES

CHANGES

REPORT PROBLEM

NEW WORK PACKAGE

主要功能Demo展示：ME创建并发布MCN变更通知



Smith John (smith) - Manufacturing/Manufacturing Engineering - Latest Working

SIEMENS

Select: Owner Select: Category

Advanced Search

Production Process Planning

INBOX

0 / 0 / 0

New Total Past Due

HOME FOLDER

HELP

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SAVED SEARCHES

CHANGES

REPORT PROBLEM

NEW WORK PACKAGE

主要功能Demo展示：IE接MCN将产品BOP添加到工厂BOP中



Avi Cohen (avic) - Manufacturing/Industrial Engineering - Latest Working

SIEMENS

Select: Owner Category: Work Packages

Advanced Search

Production Process Planning

INBOX 1 / 1 / 0
New Total Past Due

HOME FOLDER

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MY STUFF

CREATE DOCUMENT

SAVED SEARCHES

CHANGES

REPORT PROBLEM

NEW WORK PACKAGE

NEW WORK PACKAGE

FRONT AXLE SUBASSE...

PROCESS ROOT

主要功能Demo展示：IE维护工厂BOP并扩散到不同产品系列



Avi Cohen (avic)-Manufacturing/Industrial Engineering-Latest Working | Work Package: Tractor Work Package | Checked out by you | MCN-156492/A:1-New ...

SIEMENS

Select: Owner Category: Work Packages

FRONT AXLE SUBASSEMBLY

Berlin Plant_BOP > CHASSIS > FRONT AXLE SUBASSEMBLY >

Advanced Search

Planning **Balancing** Details

Overview

Product Variant: All

Takt Time: 230

Cycle Time: 229.28

STATION 70

Total Wait Time: 477.38

15 Resources

Balancing

| Station | Worker | Count | Time |
|------------|--------------|-------|--------|
| STATION 10 | WORKER 10 LH | 105 | 125 |
| | WORKER 10 RH | 92 | 138 |
| STATION 20 | WORKER 20 LH | 15 | 215 |
| | WORKER 20 RH | 3.12 | 226.88 |
| STATION 30 | WORKER 30 LH | 1.5 | 228.5 |
| | WORKER 30 RH | 4 | 226 |
| STATION 40 | WORKER 40 RH | 94.56 | 135.44 |
| | WORKER 40 LH | 66.56 | 163.44 |
| STATION 50 | WORKER 50 LH | 68 | 162 |
| | WORKER 50 RH | 11 | 219 |
| STATION 60 | WORKER 60 LH | 3 | 227 |
| | WORKER 60 RH | 5.12 | 224.88 |
| STATION 70 | WORKER 70 LH | 7.6 | 222.4 |
| | WORKER 70 RH | 0.72 | 229.28 |
| STATION 80 | | | 219 |

Operations (WORKER 40 LH - STATION 40)

| # | REV NAME | ITEM ID | ALLOC... | ASSOCIATED PROCE... |
|---|-------------------------------------|---------|----------|---------------------|
| 1 | OBTAIN AND INSTALL ROTOR SPLAS... | 003532 | 36.00 | WORKER 40 LH |
| 2 | OBTAIN (LH) CALIPER AND ALIGN TO... | 003534 | 36.00 | WORKER 40 LH |
| 3 | SUBASSEMBLE CRADLE | 003538 | 20.00 | WORKER 40 LH |
| 4 | INSTALL (LH) ACCELEROMETER TO B... | 003533 | 33.00 | WORKER 40 LH |
| 5 | SECURE (LH) CALIPER TO MNT WITH ... | 003531 | 28.00 | WORKER 40 LH |
| 6 | OBTAIN (LH) BOLTS AND SCREW THE... | 003582 | 10.44 | WORKER 40 LH |

Operations Sequence

Select a station to view the operations sequence

Product BOP: Product BOP Mo

- ELECTRICAL
 - FRONT AXLE
 - 003053/A;1-INSTALL (RH...) | 28 sec
 - 003054/A;1-OBTAIN (RH...) | 36 sec
 - 003055/A;1-SECURE (LH)...
 - 003056/A;1-SECURE (RH)...
 - 003057/A;1-OBTAIN AN...
 - 003058/A;1-INSTALL (LH)...
 - 003059/A;1-INSTALL (RH)...
 - 003062/A;1-OBTAIN (LH)...
 - 003161/A;1-OBTAIN (LH)...
 - 003162/A;1-OBTAIN (RH)...
 - HYDRAULICS
 - COOLING
 - ENGINE
 - FRONT LINKAGE
 - REAR AXLE

主要功能Demo展示：IE快速线平衡分析优化节拍时序



SIEMENS

Avi Cohen (avic)-Manufacturing/Industrial Engineering-Latest Working | Work Package: Tractor Work Package | Checked out by you | MCN-156492/A:1-New ...

Select: Owner Category: Documents

FRONT AXLE SUBASSEMBLY

Berlin Plant_BOP > CHASSIS > FRONT AXLE SUBASSEMBLY >

Advanced Search

Planning **Balancing** Details

Overview **Balancing** | driven by Product BOP Model B [Show Product BOP](#)

Product Variant: All

230 Takt Time

229.28 Cycle Time

STATION 70

435.62 Total Wait Time

15 Resources

| Station | Worker | Current | Target |
|---------------------|--------------|---------|--------|
| STATION 10 (158) | WORKER 10 LH | 105 | 125 |
| | WORKER 10 RH | 92 | 138 |
| STATION 20 (226.88) | WORKER 20 LH | 15 | 215 |
| | WORKER 20 RH | 3.12 | 226.88 |
| STATION 30 (228.5) | WORKER 30 LH | 1.5 | 228.5 |
| | WORKER 30 RH | 4 | 226 |
| STATION 40 (205.2) | WORKER 40 RH | 94.56 | 135.44 |
| | WORKER 40 LH | 24.8 | 205.2 |
| STATION 50 (219) | WORKER 50 LH | 68 | 162 |
| | WORKER 50 RH | 11 | 219 |
| STATION 60 (227) | WORKER 60 LH | 3 | 227 |
| | WORKER 60 RH | 5.12 | 224.88 |
| STATION 70 (229.28) | WORKER 70 LH | 7.6 | 222.4 |
| | WORKER 70 RH | 0.72 | 229.28 |
| STATION 80 | | | 219 |

Operations (Unassigned - STATION 40)

There are no unassigned operations in the station to display

Operations Sequence

Station 40 has new plant operation that is not assigned to an operator - to balance the line, IE will share an operation with operator from Station 50

主要功能Demo展示：IE将变更情况回馈ME并发布变更



SIEMENS

Avi Cohen (avic) - Manufacturing/Industrial Engineering - Latest Working | Work Package: Tractor Work Package | Checked out by you | MCN-156492/A:1-New ...

Select: Owner Category: Documents

FRONT AXLE SUBASSEMBLY

Berlin Plant_BOP > CHASSIS > FRONT AXLE SUBASSEMBLY >

Advanced Search

Planning **Balancing** Details

Overview **Balancing** | driven by Product BOP Model B [Show Product BOP](#)

Product Variant: All

230
Takt Time

229.28
Cycle Time

STATION 70

253.06
Total Wait Time

15 Resources

| Station | Worker | Progress | Count | Target |
|---------------------|-------------------|------------------------------------|-------|--------|
| STATION 10 (158) | WORKER 1... (60%) | <div style="width: 60%;"></div> | 13 | 125 |
| | WORKER 1... (60%) | <div style="width: 60%;"></div> | 0 | 138 |
| STATION 20 (226.88) | WORKER 20 LH | <div style="width: 15%;"></div> | 15 | 215 |
| | WORKER 20 RH | <div style="width: 3.12%;"></div> | 3.12 | 226.88 |
| STATION 30 (228.5) | WORKER 30 LH | <div style="width: 1.5%;"></div> | 1.5 | 228.5 |
| | WORKER 30 RH | <div style="width: 4%;"></div> | 4 | 226 |
| STATION 40 (224.44) | WORKER 40 RH | <div style="width: 94.56%;"></div> | 94.56 | 135.44 |
| | WORKER 40 LH | <div style="width: 66.56%;"></div> | 66.56 | 163.44 |
| | WORKER 50 LH | <div style="width: 26.24%;"></div> | 26.24 | 203.76 |
| STATION 50 (219) | WORKER 50 LH | <div style="width: 26.24%;"></div> | 26.24 | 203.76 |
| | WORKER 50 RH | <div style="width: 11%;"></div> | 11 | 219 |
| STATION 60 (227) | WORKER 60 LH | <div style="width: 3%;"></div> | 3 | 227 |
| | WORKER 60 RH | <div style="width: 5.12%;"></div> | 5.12 | 224.88 |
| STATION 70 (229.28) | WORKER 70 LH | <div style="width: 7.6%;"></div> | 7.6 | 222.4 |
| | WORKER 70 RH | <div style="width: 0.72%;"></div> | 0.72 | 229.28 |

Operations (WORKER 10 RH - STATION 10)

| # | REV NAME | ITEM ID | ALLOCATED ... | ASSOCIATED PROCESS RESOURCE |
|---|---|---------|---------------|-----------------------------|
| 1 | SUBASSEMBLE STABILIZER BAR AND GROMMETS | 003435 | 73.00 | WORKER 10 RH |
| 2 | INSTALL AND SECURE STABILIZER BAR BRACKETS TO FRAME | 003433 | 65.00 | WORKER 10 RH |

Operations Sequence

Select a station to view the operations sequence

主要功能Demo展示： 电子作业指导书的在线编辑



Yuval (yuval) - Manufacturing/Industrial Engineering - Latest Working

SIEMENS

Select: Owner Select: Category

Advanced Search

Work Instructions

INBOX

1 / 1 / 0

New Total Past Due

HOME FOLDER

HELP

PRINTOUTS

NEW PART

FAVORITES

MY STUFF

CREATE DOCUMENT

SAVED SEARCHES

CHANGES

REPORT PROBLEM

NEW WORK PACKAGE

特色：EasyPlan轻量级电子作业指导书的在线编辑功能展示



Planning Work Instructions

Overview T

002343/A;1-body

002344/A;1-top

002331/A;1-flipfone_b...

002332/A;1-flipfone_fr...

002333/A;1-flipfone_p...

003172/A;1-bottom

003173/A;1-hinge

003174/A;1-cap

002339/A;1-flipfone_cap

003175/A;1-antena

Editor of top

B **I** **U** Format

assembly of the top body

1. place the 002333/A;1-flipfone_pad_top inside the 002332/A;1-flipfone_front_top
2. press the pad firmly into the front
3. check that all the keys are crossing their holes
4. close the assembly with [[
5. make sure to insert the p
6. press the back firmly

002331/A;1-flipfone_back_top

002332/A;1-flipfone_front_top

002333/A;1-flipfone_pad_top

减少编辑EWI的时间和错误

- 使用自动补全功能，输入零件和资源名称比以往更快、更准确
- 自动匹配适应EWI页面到车间可视化设备的UI界面

Easy Plan 2.6