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Introduction
Model Company Overview
Service Overview
Service Scope
Delivery Approach
A SAP Model Company is a pre-packaged, ready-to-use, end-to-end reference solution, tailored to an industry or line of business.

It comprises state-of-the-art applications and proven best practices and encapsulates the experience from successful, real-life digital transformation projects.

Embedded in an overall transformation road map and delivered as a service, a model company driven approach enables you to reduce cost, decrease risk, and accelerate adoption during discovery, preparation, exploration, and realization activities.
The SAP Model Company
Building Blocks of a unique Offering in the Market

**Accelerators**
Configuration and How-to guides, test and demo scripts, implementation tools

**Business Content**
Business process hierarchy, end to end scenarios, process diagrams by roles incl. process steps

**Preconfigured Solution**
Available as a ready to run appliance, incl. all applications, configuration, sample data

**Engineered Service**
Hand-Over and enablement workshops to jumpstart discovery, exploration and realization

**Foundation**
Activate Industry Reference Architecture Digital Business Framework
Key benefits of the SAP Model Company

Fast time to value
• Get a jump-start for your implementations
• Deploy SAP innovations fast, simple and flexible
• Reduce non-value adding tasks to a minimum

Predictable results
• Use state of the art architecture and best practices
• Minimize risk with proven end-to-end solutions
• Leverage business and implementation guides

Simple on-boarding
• Reduce complexity and use ready-to-run appliances
• Accelerate and get your model company in days
• Minimize costs with cloud based deployments
## SAP Model Company Services

### Model Company Service

<table>
<thead>
<tr>
<th>System aspect</th>
<th>Approach aspect</th>
<th>Discovery</th>
<th>Exploration</th>
<th>Realization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Company Discovery</td>
<td>Demonstrate the capabilities using a SAP Model Company TRIAL system for standard solutions</td>
<td>Model Company for [Industry/LoB]</td>
<td>Support and accelerate design &amp; configuration activities with a SAP Model Company SANDBOX system</td>
<td>Model Company for [Industry/LoB]</td>
</tr>
<tr>
<td>Late released on SAP infrastructure, read only, no access to customizing</td>
<td>Latest release, customer specific copy and full customizing access for Fit/Gap, Integration check</td>
<td>Latest release, transport results from SANDBOX to DEVELOPMENT System, connected to SolMan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guided tour / show &amp; tell, self-learning</td>
<td>User story-based collection, evaluation, prioritization approach, standard kick-off and handover workshop</td>
<td>User story-based collection, evaluation, prioritization approach, standard kick-off and handover workshop</td>
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</tbody>
</table>

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SAP Model Company Use Cases and Offerings

**Discovery**
“Help me understand the state of the art possibilities with SAP”

**Exploration**
“How can I focus my solution design activities on innovation and differentiation”

**Realization**
“I need to accelerate my implementation and eliminate risks of failure”

Our offering: **SAP Model Company Discovery**
- Gain hands-on experience using any of the available SAP Model Companies for industry or LoB
- Get business user access to the selected SAP Model Company in the cloud
- Use process models and e.g. demo scripts to accelerate discovery and preparation

Our offering: **SAP Model Company for [Industry/LoB]**
- Accelerate your implementation with your own, dedicated SAP Model Company
- Get the full set of business content, process models, accelerators and enablement workshops
- Deploy your SAP Model Company appliance in the cloud (e.g. on AWS, HEC) or on Premise
- Use the Model Company with SAP Value Assurance or an individual consulting projec
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Introduction to Connected Manufacturing

**DESIGN**

**PLAN**

**RESPOND**

**PRODUCE**

**DELIVER**

**OPERATE**

**Connectors**

- Production plan
- Bill of materials (BoM)
- Variant management
- Production steps

- Serial Numbers
- Quality results per lot
- Order confirmation
- Inventory update, Equipment usage

**ME & MII**

- Production details management
- Detailed and flexible
- Production step routing
- Shop floor controls for each step

- Log parametric data
- Tolerance checks
- Return "conformance" or "non-conformance" decisions

**PCo**

- Mapping of ME production details to PLC control parameters (recipe)

- Mapping of ME production details to PLC control parameters (recipe)

**PLC or Machine**

- Sensor detects material carrier
- Requests control parameters from ME
- Collect, validate, record, take action

- Machine reports completion and requests next operation

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The Model Company for Connected Manufacturing is based on standard solution capabilities provided by S/4HANA and SAP Manufacturing Executions.

Deliver integrated master data framework as a backbone and enabler of the processes, which will be run in different business areas.

Providing demo script to run the complete scenario from customer order, through production until finished goods is send to the customer including invoice.
The Model Company for Connected Manufacturing covers in detail the production specific processes from creation of a production order out of a demand forecast (customer order, make to stock, repetitive manufacturing) down to the Shop Floor execution until confirmation of the finished product including goods receipt, backflush of component materials, posting of costs to cost collector, and creation of material and accounting documents.

Business Users: Production Supervisor, Production Planner, Production Manager, Production Operator

Model Company for connected Manufacturing is fully embedded into the SAP S/4 Best Practices
Model Company for Connected Manufacturing
Overview Shop Floor Processes
System Landscape

Solution Manager 7.2 (Appliance)

Model Compay for Connected Manufacturing (Appliance)

On Premise

SAP Solution Manager

Enterprise

SAP S/4HANA

Shop Floor

SAP ME/MII

Machine Emulator

Machine Integration

Windows Server

SAP PCo

Machine

OPC Server (Optional)
Which software is used in the Discovery Service?

<table>
<thead>
<tr>
<th>Software</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S/4HANA on Premise 1610</td>
<td>Preconfigured in Model Company Discovery Service</td>
</tr>
<tr>
<td>SAP Manufacturing Execution 15.1 SP3</td>
<td>Preconfigured in Model Company Discovery Service</td>
</tr>
<tr>
<td>SAP Manufacturing Integration and Intelligence 15.1 SP3</td>
<td>Preconfigured in Model Company Discovery Service</td>
</tr>
</tbody>
</table>
SAP Manufacturing Execution (ME)
Solution Suite Overview

SAP Manufacturing Execution
» Manages and controls manufacturing and shop floor operations
» Integrates business systems to the shop floor
» Complete component and process traceability across global operations

Manufacturing Functionalities
- Traceability
- Non-conformance Management
- Labor Tracking
- Engineering Change Management
- Production Transfer
- Return and Repair
- Real-time SPC
- Production Metrics (BOBJ)
- Machine Integration Layer (PCo)
- ERP Shop Floor Integration
- Test and Repair
SAP Connected Manufacturing Strategy

Cloud / On-Premise / Shop Floor
SAP Connected Manufacturing

Application Examples

Overall Equipment Effectiveness

Process Enforcement and Execution

Production Traceability

Manufacturing Performance

Product Quality

Process Optimization

Product Networks

Energy Management
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Key Characteristics of the SAP Model Company Discovery Service

**Ready to use**

- Deployment within 24 hrs
- Fully installed and configured SAP Model Company on SAP infrastructure
- Access to systems based on end-users / personas to experience the SAP Model Company
- Sample master and transactional data to experience the best-practice End2End-scenarios
- Create own transactional data as part of the scenario
- Guided show & tell session with an SAP Model Company expert (1-2 hrs)
- Delivery of complete landscape within 24 hrs after ordering
- SAP managed infrastructure with full basis support
- Step-by-step demo guides for all End2End processes

**Limitations**

The Discovery service has some limitation in what you can do with the Model Company

- No access to configuration or customizing
- No upload of customer data
- No integration into customer landscape
- No productive usage
- No backup (= crash and burn)
- No integration into existing landscape (at customer site)
- No additional consulting (can be ordered separately if needed)
- No SLA’s guaranteed (availability, IRT, MPT, …)
- No development allowed in the systems
SAP Model Company for Connected Manufacturing

Discovery Service Overview

- The SAP Model Company service for Connected Manufacturing enables you to minimize effort, risks and costs during your implementation. Using the preconfigured prototype system, which supports the end-to-end processes in top floor to shop floor manufacturing connectivity, you can now focus your resources on differentiation and innovation.

Business Needs
- Full transparency to real time information about production schedules, component availability equipment conditions, and quality to efficiently run and improve shop floor processes
- Minimize expense, effort, and risk of adopting technology needed to stay competitive
- Integrated manufacturing processes from top floor to shop floor

Delivery Approach and Scope
- Jump Start your implementation with a preconfigured Model Company Appliance template
- Installed on SAP infrastructure
- Step-by-Step process documentation

Value and Benefits of the Model Company Discovery Service
- Secured value realization and lowered risk of failure
- Ready-to-use / no implementation efforts
- Available within 24 hrs after ordering

Related Services:
- Business Impact Assessments for Digital Transformation and IoT
- S/4HANA Value Assurance Services
- Rapid Deployment Solutions for SAP ME and MII
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Get ready for Industry 4.0 by implementing Connected Manufacturing

The model company for Connected Manufacturing

- Supports the end-to-end process from Make to Order, Make to Stock and Repetitive Manufacturing from Top Floor to Shop floor
- Integrates the S/4HANA digital core including preconfigured SAP Best Practices with Manufacturing Execution System
- Delivers pre-configured shop floor scenarios for production of subassemblies and traceable manufactured parts.
Service Scope Options: Detailed Tasks

Discovery

<table>
<thead>
<tr>
<th>Exploration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform Show &amp; Tell Session</td>
</tr>
<tr>
<td>Provide access to the model company</td>
</tr>
<tr>
<td>Wrap up with SAP recommendations on next steps</td>
</tr>
</tbody>
</table>

Prepare

<table>
<thead>
<tr>
<th>Enablement &amp; Prototyping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform Kick-Off Workshop</td>
</tr>
<tr>
<td>Provide the model company template</td>
</tr>
<tr>
<td>Align with customer on to-be-used master data</td>
</tr>
<tr>
<td>Support customer in preparing and uploading own set of master data</td>
</tr>
<tr>
<td>Prototyping scoping sessions based on the preconfigured processes</td>
</tr>
<tr>
<td>Prototype configuration</td>
</tr>
<tr>
<td>Hand over &amp; Wrap up with SAP recommendations on next steps</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scope Option 3 Delta Blueprint Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform Kick-Off Workshop</td>
</tr>
<tr>
<td>Provide the model company template</td>
</tr>
<tr>
<td>Align with customer on to-be-used master data</td>
</tr>
<tr>
<td>Support customer in preparing and uploading own set of master data</td>
</tr>
<tr>
<td>Delta blueprinting sessions (fit/gap analysis) using the preconfigured processes and the available accelerators such as test scripts, process documentation etc. as a basis</td>
</tr>
<tr>
<td>Sizing, performance and deployment landscape definition</td>
</tr>
<tr>
<td>Perform core SAP ME knowledge transfer</td>
</tr>
<tr>
<td>Prepare rollout plan and plan go-live</td>
</tr>
<tr>
<td>Hand over workshop for delta blueprint signoff</td>
</tr>
</tbody>
</table>

Explore

<table>
<thead>
<tr>
<th>Scope Option 4 Shop Floor Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform Kick-Off Workshop</td>
</tr>
<tr>
<td>Perform integrated landscape audit and analysis with focus on shop floor technology</td>
</tr>
<tr>
<td>Machine status enablement</td>
</tr>
<tr>
<td>Support shop floor connection to the provided Model Company to collect process data</td>
</tr>
<tr>
<td>Hand over &amp; Wrap up with SAP recommendations on next steps</td>
</tr>
</tbody>
</table>

All four scope options have fixed efforts. Additional effort according to scope document will be handled as separate T&M. Tool included in scope options 1, 2 and 3. No scope option mandatory. Scope option 4 requires either scope option 1, 2 or 3 to be completed.
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Overview of other Model Company Services

You are here

- Show and tell / introduction of Model Company
- SAP hosted landscape

Discover

- Get own instance in the Cloud
- Key user enablement
- Prototyping
- Fit Gap Analysis workshops on the system

Prepare

Explore

Realize

- Implement selected scope in production system

Deploy

Run

Solution Manager Integration

- Solution Manager Integration

Show and tell End to End Solution

Start with Model Company

Scope and configure

Migrate, integrate, extend, test

Onboard and deploy

Operate, monitor, support

SAP S/4HANA

Project Lifecycle
Thank You!
Appendix
Model Company for Connected Manufacturing
Master Data

- Reuse of SAP Best Practice Organizational Structure
- Country Scope US, Language English

- Material: Forklift = finished Product, including BOM, Routing, Classification etc.
This process enables production planning in make-to-stock scenarios and quick reaction to incoming sales orders. The process starts with the creation of a demand forecast for finished goods represented by planned independent requirements (PIRs). Based on PIRs, the Material Requirements Planning (MRP) creates a production plan for finished goods and explodes the entire bill of material structure. As a result, semifinished component production and raw material demand is planned. Production planners can analyze and manually change the planned order based production plan.

Raw material demand leads to purchase requisitions that trigger alternative procurement scenarios referenced in this scope item. The production process itself is fully covered via conversion of planned into production orders, order release, material staging and picking, confirmation of order operations, and goods receipt posting. Order-based target and actual cost is created, ensuring fully integrated material and value streams.

Key process steps
- Planned independent requirements processing
- Material requirements planning and evaluation of stock requirement list
- Production order processing: Material staging, order release, order confirmation, material movement postings for goods issue and goods receipt

Business benefits
- Production execution triggered by a production plan
- Automatic explosion of the bill of material when running the material requirements planning
- Target costs are calculated during order creation
This scope item describes the complete process sequence for a standard sales process (Make-to-Order) with a customer. The business process encompasses all steps from the customer quotation to the clearing of a customer account after payment received.

The process starts with an incoming request for quotation (RFQ) and a quotation is created in the system. The customer requests a change and finally accepts the second quotation. A referenced sales order is created. The production process is triggered by an MRP run for the product ordered by the customer. The product is produced and the process ends with the delivery and billing of the produced goods.

The process can be enhanced individually by executing optional steps, like procurement of components, credit management, and period end closing. The main component can be planned and produced prior to the incoming sales orders by completing the scope item 1BM – MTO Production – Semifinished Goods Planning and Assembly.

**Key process steps**
- Incoming request for quotation
- Creation of quotation for customer
- Creation of follow-on quotation based on the customer’s request to change the first quotation
- Creation of referenced sales order after the customer acceptance of the second quotation
- Planning and execution of the production process
- Delivery of the produced goods
- Billing to customer based on billing plan from sales order

**Business benefits**
- Production planning in a make-to-order scenario
- Customer-specific production execution
- Quotation history
- Billing plan including down payment
Repetitive Manufacturing is commonly used when a production process meets the following criteria:

The same or similar products are produced over a lengthy period. The products produced are not manufactured in individually defined lots. Instead, a total quantity is produced over a certain period at a certain rate. The products produced always follow the same sequence through the machines and work centers in production. Routings tend to be simple and do not vary much.

This scenario starts with Planned Independent requirements (PIR), which are used to perform the demand management functions. Material Requirements Planning (MRP) generates planned orders for the material to be produced. Using the planning table, planning the production of materials on the production lines is completed. Finally, the confirmation of Repetitive Manufacturing executes multiple activities such as finished product goods receipt, backflush of component materials, posting of costs to cost collector, and creation of material and accounting documents.

Key process steps
- Creation of planned independent requirements
- Planning of material requirements at plant level
- Adjustment of planning in planning table
- Checking range of stock coverage
- Material staging
- Confirmation of assembly activities and repetitive manufacturing backflush
- Post processing of error records

Business benefits
- Make-to-stock production based on run schedules without reference to sales orders
- Simplified handling of the production process with full cost control
- Confirmation of assembly activities without using production or process orders
## Integration Points in Scope

Model Company for Connected Manufacturing cover the E2E integration of S/4HANA on Premise to Manufacturing Executions

<table>
<thead>
<tr>
<th>Integration point</th>
<th>From Product/Solution</th>
<th>To Product/Solution</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short description of integration point</strong></td>
<td><strong>From SAP product that integrates</strong></td>
<td><strong>To SAP product that integrates</strong></td>
<td><strong>Technical nature of integration e.g. ALE</strong></td>
<td><strong>Longer description of scope of integration perhaps covering business objects or data</strong></td>
</tr>
<tr>
<td>Master Data: Material, Routing,</td>
<td>SAP S/4HANA</td>
<td>SAP ME</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transactional Data: Release Production Order</td>
<td>SAP S/4HANA</td>
<td>SAP ME</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transactional Data: Production Yield, Production Scrap Order Complete</td>
<td>SAP ME</td>
<td>SAP S/4HANA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Reference the SAP Activate Methodology group in SAP Jam. This requires you to register at bit.ly/SAPActivate. You can also see the general SAP Activate methodology and S/4HANA specific roadmaps in the SAP Roadmap Viewer. Get the latest information and slides you can use about the SAP Activate methodology to include here:

- SAP Activate for SAP S/4HANA
- SAP Activate Methodology for Cloud
- SAP Activate Methodology for On-Premise Solutions
Our consultants all over the world deliver SAP services to you, onsite as well as remote.
Alignment

We are closely aligned – **ONE SAP** to meet your needs best.
Vast Experience

Nowhere else can you find that much experience on SAP solutions.
Risk Mitigation

Following a proven delivery model ensures project success.