Precisely Automate Solutions for SAP Plant Maintenance

Get peak performance from your SAP PM machine-and continually improve operations

Your team's job is to maximize plant, facilities, and fleet uptime, and minimize business disruption and health, safety, and environmental risks. This critical job is often done under the directive to "do more with less" even while maintaining an aging infrastructure.

What are your key challenges for improving maintenance at your facility?

Plant Engineering Magazine Maintenance Report, 2017

If you use SAP's Plant Maintenance (PM) module to run your operations, you face another set of challenges that can hamper your team's ability to continually improve operations.

Your SAP system is similar to a powerful, yet complex piece of equipment. For optimal performance, it must be fueled by high-quality data and maintained on a regular basis. But that's easier said than done.

Without the right set of tools, the 'care and feeding' of your system can be a manual, time-consuming and frustrating process. Failure to install the right filters can lead to the system getting clogged with inaccurate, incomplete or inconsistent data-making it tough for your planners to make the best resource allocation decisions to improve operations.

> Your SAP PM system is like a complex machine-to run at peak performance it requires high-quality fuel and regular maintenance.

The Precisely Automate platform provides a flexible toolkit that makes it faster and easier to give your SAP system the attention it needs, enabling you to improve data quality, save countless hours, and make better decisions.

When your SAP PM machine is running at peak performance, your maintenance team can impact the metrics that matter the most-uptime, health and safety, and operational costs.

Improve all your SAP PM operations with one toolkit

Using Precisely Automate, you can build solutions for both master and transactional data that:

- **Automate and streamline data creation and maintenance** - use custom-built Excel workbooks or web forms to make it quick and easy to provide or update data-whether it's for one record or thousands of records.
- **Improve data quality** - get data right and keep it right with a range of data stewardship capabilities that filter data coming into your SAP system.
- **Make operational reporting quick and easy** - quickly create and roll out useful reports in Excel that can pull data together from multiple SAP tables.

Use this flexible toolkit for many different scenarios, including:

- **Data migration** - easily move data from an existing plant maintenance system (like IBM's Maximo) to SAP's PM module.
- **Mass creation and uploads of new master data** - with Automate Studio, loading new data is fast and painless when you acquire new plants, equipment or infrastructure.
- **Day-to-day data creation and changes** - speed up the creation of master data records, work orders, and notifications-while improving data quality.
- **Mass updates** - speed through the update of thousands of records at a time and validate data before it's entered in SAP.

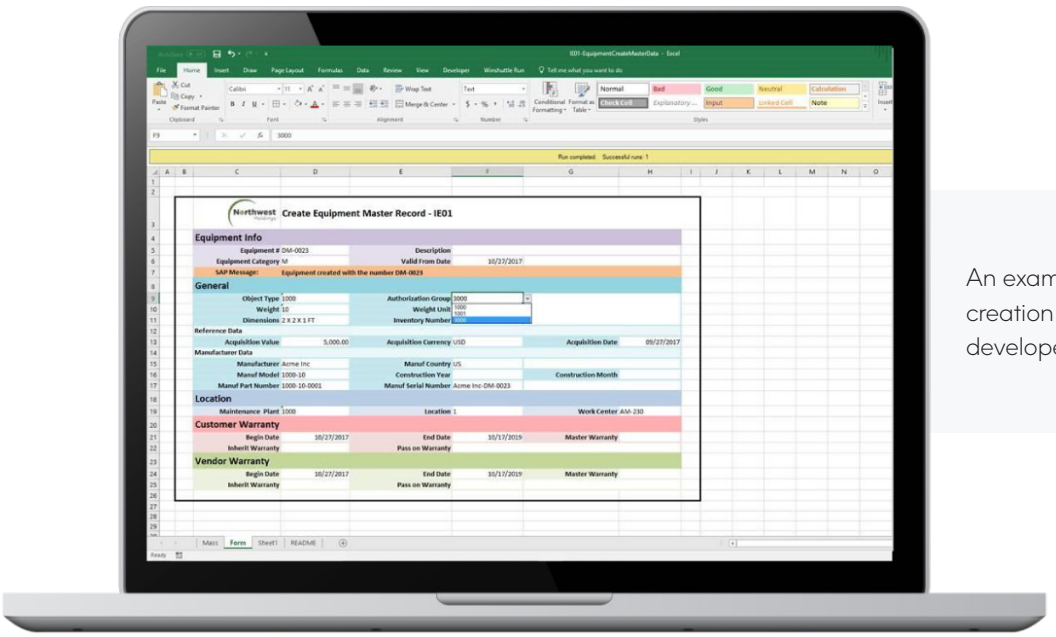
Higher productivity starts with good master data

Your work orders and notifications rely on accurate, complete master data. Build solutions that make it quick and easy to get your PM master data right the first time and keep it right.

The table below shows some of the common master data tasks our customers automate with Automate Studio and the average time they save by eliminating manual data entry into SAP.

Master data task	T-code	Data entry time saved*
Create work center	IR01	93%
Create / change functional location	IL01 / IL02	95% / 85%
Create / change equipment	IE01 / IE02	96% / 75%
Change equipment serial number	IQ02	84%
Create / change materials	MM01 / MM02	89% / 77%
Create / change equipment BoMs	IB01 / IB02	81% / 67%
Manage classes & characteristics	CL02 / CT04	91%
Create / change maintenace plan	IP01 / IP02	95% / 81%
Create task lists	IA05 / IA01 / IA11	72% / 94% / 94%
Create maintenance items	IP04	89%
Schedule maintenance plan	IP10	59%
Create / change measuring point	IK01/ IK02	79% / 80%

*Average time savings using Automate Studio versus manually entering data into SAP.



An example of a simplified equipment creation solution in an Excel workbook developed with Automate Studio.

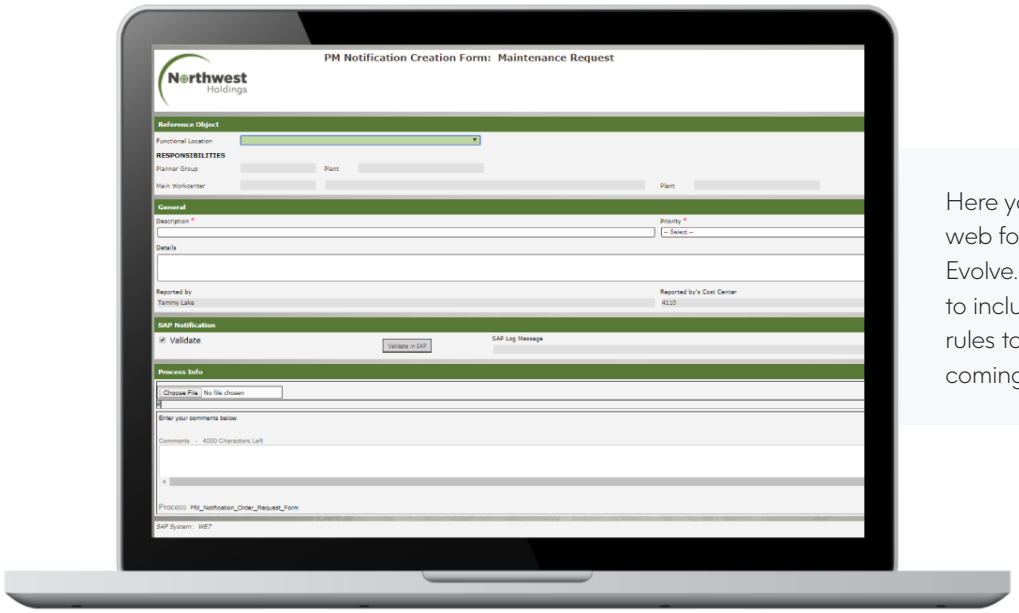
Develop custom solutions for work orders and notifications

Whether you need a better way to create notifications in the field or change thousands or work orders at a time, Precisely Automate gives you the tools you need to build solutions that save time and improve data quality.

Transactional task	T-code	Data entry time saved*
Create / change / release work order	IW31 / IW32 / IW38	88% / 85% / 92%
Create / change corrective maintenance notification	IW21 / IW22	93% / 77%
Create / change service notification	IW51 / IW52	87% / 88%
Enter PM order completion / overall completion confirmation	IW41 / IW42	86% / 79%
Create / change document	CV01N / CV02N	92% / 88%

*Average time savings using Automate Studio versus manually entering data into SAP.

The table above shows some of the common transactional tasks that maintenance departments automate with Automate Studio, along with the average time saved compared to manually entering data into SAP.



Here you can see a notification web form developed with Automate Evolve. You can choose which fields to include and embed your business rules to proactively steward data coming into SAP.

With Precisely Automate, you're not stuck with pre-built solutions that don't meet the specific needs of your department. You have the power to build custom solutions that simplify any process or task and improve data quality-all without needing technical programming skills.

Quickly create useful operational reports

Planners, supervisors and other maintenance team members need quick access to the data they need to make the day-to-day decisions that impact operational efficiency. Precisely Automate solutions allow you to quickly build reports that can query data from multiple SAP tables and present the information in a way that's easy for your team to digest.

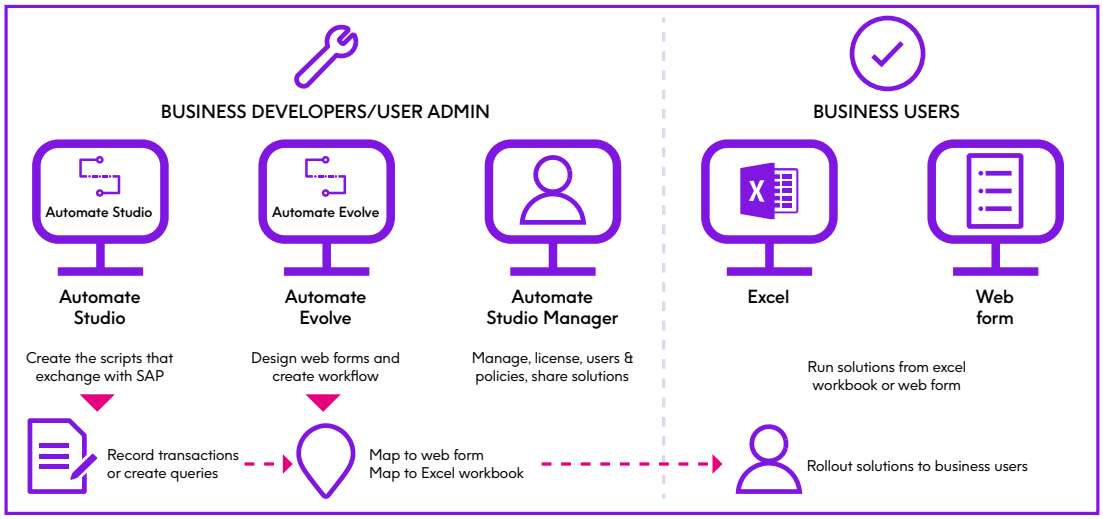
With Precisely Automate, you don't need to know SOVI or any other technical query language to build useful reports. You just need to know the data you want to include and Automate Studio will help you locate the right tables and data elements, and guide you through the process of joining tables if necessary.

Once you're done building the queries, you can embed them into an Excel workbook and format the reports in a way that makes sense for whoever is going to use them.

How Precisely Automate tools work in your department

Business developers (typically SAP PM analysts or SAP power users in the maintenance team) use Automate Studio to create powerful scripts that exchange data with SAP. This desktop application doesn't require SQVI, ABAP, or any other coding skills.

Precisely Automate Options



The business developers map these scripts to Excel workbooks, embed your business rules, and roll out the solutions to the maintenance team or the wider business.

Business users (planners, supervisors, field technicians, engineers, etc.) use these Excel workbooks to supply or approve data or run operational reports.

They can get their work done faster, and with fewer errors using tools they're already familiar with and don't need to use the SAP GUI-making their lives easier and reducing the training and support needed from your SAP super users or analysts.

There are some maintenance processes where a web form provides a better solution. For those instances, your business developers use Automate Evolve to design the web forms and accompanying workflow. These solutions use the scripts created in Automate Studio to exchange data with SAP.

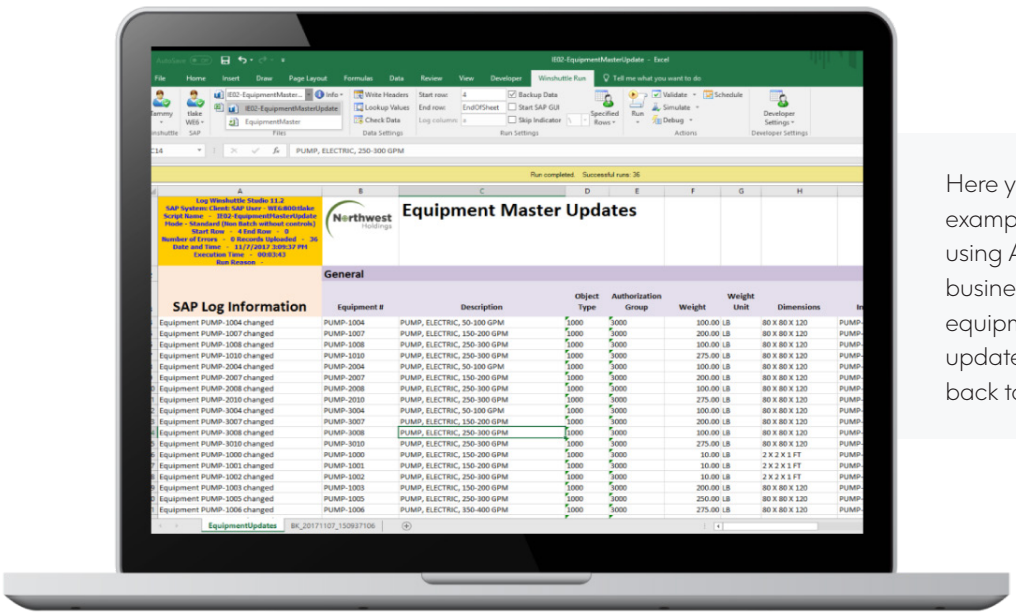
Automate Studio Manager provides centralized user governance capabilities that enables someone in the maintenance team, or IT, to manage Precisely Automate licenses and solutions and set policies. This powerful administrative toolset also gives you granular control over who can exchange data with SAP, and full audit capabilities, so you can easily report on who did what with each of your PM processes.

Get data right and keep it right with powerful data stewardship tools

Precisely Automate provides a range of capabilities that enable you to filter data coming into your system proactively, including:

- **Required fields to get a complete set of data** - Instantly make fields required in your web forms and eliminate holes in your data without going through the pain of making those fields required in SAP.
- **Search capabilities to reduce duplicate records** - Give business users an easy way to check for duplicate records. Automate Evolve web forms support numerical, text and wildcard searches, making it simple to find records.
- **Role-based views to reduce errors** - Configure web forms or Excel workbooks with just the fields that are relevant to someone's role. This reduces the chance of them entering the incorrect data or overriding existing data. You can also restrict which fields business people can edit or view.
- **Configurable field values and SAP lookups that make it easier to choose the right data** - Narrow down the available options for your business users by defining pre-set values for field drop-down lists. You can also give users access to SAP F4 lookups directly from forms or Excel workbooks.
- **Form logic to streamline data collection and improve data quality** - Use logic to design smart, flexible forms that make it fast and easy to collect the right data. Present fields based on user input and pre-populate data to save time and improve data quality.
- **"Copy from" functionality to speed processes and reduce errors** - Populate data from existing records into web forms or Excel workbooks, then make necessary edits.
- **Live SAP validation to check data before loading** - Give business users the ability to check for data errors before submitting data to SAP. Any problems will be highlighted in the web form or Excel workbook so users can easily identify errors and correct data.

The data stewardship features above help keep the new data coming into your SAP system clean, and you can also use Precisely Automate solutions to extract and clean up existing data. We call this a "round trip."



Here you can see a "round trip" example. This Excel workbook designed using Automate Studio is used by business users to extract existing equipment master records, make updates, validate the data, then post back to SAP with the click of a button.

For example, you can update the work center or cost center on a large number of equipment master records. A query script pulls records into an Excel workbook, based on criteria you supply. You can then make the necessary changes, validate your entries based on your business rules, then upload the amended records into SAP with a push of a button.

When you send data to SAP, Automate Studio automatically creates a new tab in your workbook that saves the original data, just in case you need to restore it.

Continually improve maintenance operations and the metrics that matter most

Precisely Automate gives you the power to build solutions that keep your SAP PM machine operating at peak performance.

Key benefits include:

- **Time savings for skilled personnel** - Enable your planners and supervisors to spend time on value-added tasks like creating and improving maintenance plans, versus searching for missing data, manually entering information into SAP, or training people on how to use SAP.
- **Improved data quality** - Build solutions that proactively filter data coming into your SAP PM machine, and easily keep your data right as things in the business change.
- **Better decision making** - When your data is more complete, standardized and accurate, you can make better decisions about resource allocation, preventive scheduling, and the purchasing of spare parts and MRO materials.

When your system is running this smoothly, you'll be able to make a real impact on the metrics that matter most-uptime andequipment performance, risks to health, safety, and the environment, and operational costs.