

ProMaSo User manual



ProMaSo User manual

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1 Log on

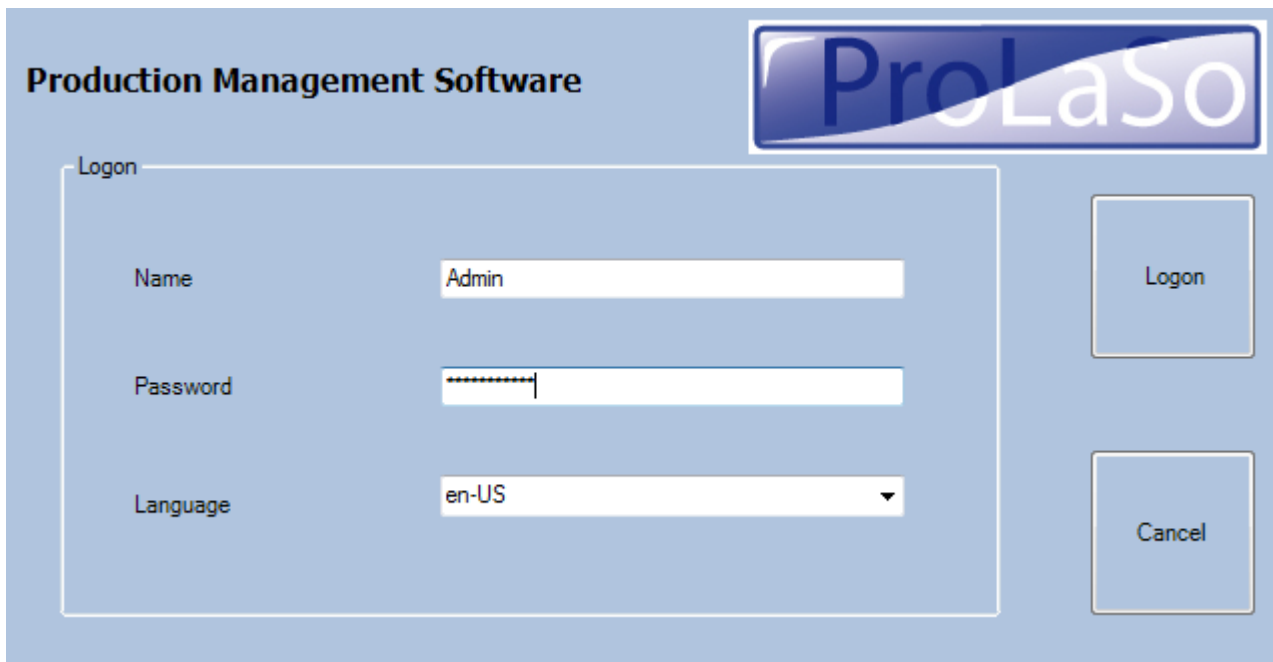


Figure 1

On launching the “ProMaSo” software, you will get a log on screen as shown in Figure 1. After entering the “Name” and “Password” click on logon to start the application.

As “ProMaSo” stores all configuration data in a database per User, you need to log on. Through sessions, “ProMaSo” stores each users screen layout and selected modules.

On logging in, you can also select the language used by the software. Following languages are available:

- nl-NL Dutch
- en-US English
- de-DE German
- fr-FR French

After logging in with the correct user name and password, you will enter the main screen.

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2 Main user interface

2.1 Ribbon bar

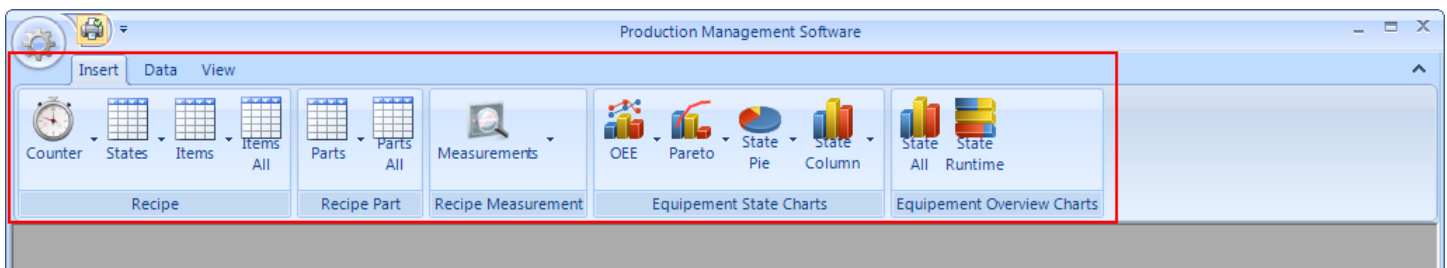
The ProMaSo user interface is based on the ribbon bar.

The three parts of the Ribbon are tabs, groups, and commands.

There are three basic components to the Ribbon. It's good to know what each one is called so that you understand how to use it.

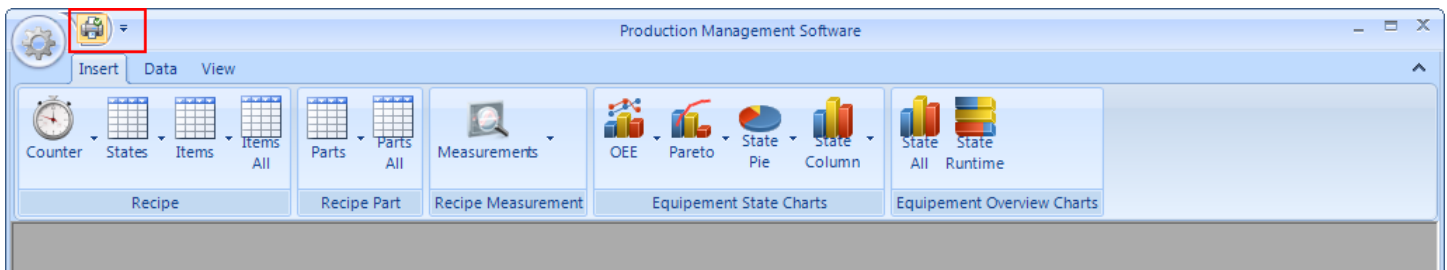
- Tabs. There are seven basic ones across the top. Each represents an activity area.
- Groups. Each tab has several groups that show related items together.
- Commands. A command is a button, a box to enter information, or a menu.

Everything on a tab has been carefully selected according to user activities. For example, the Insert tab contains all the things you need to generate a report.



Quick Access Toolbar

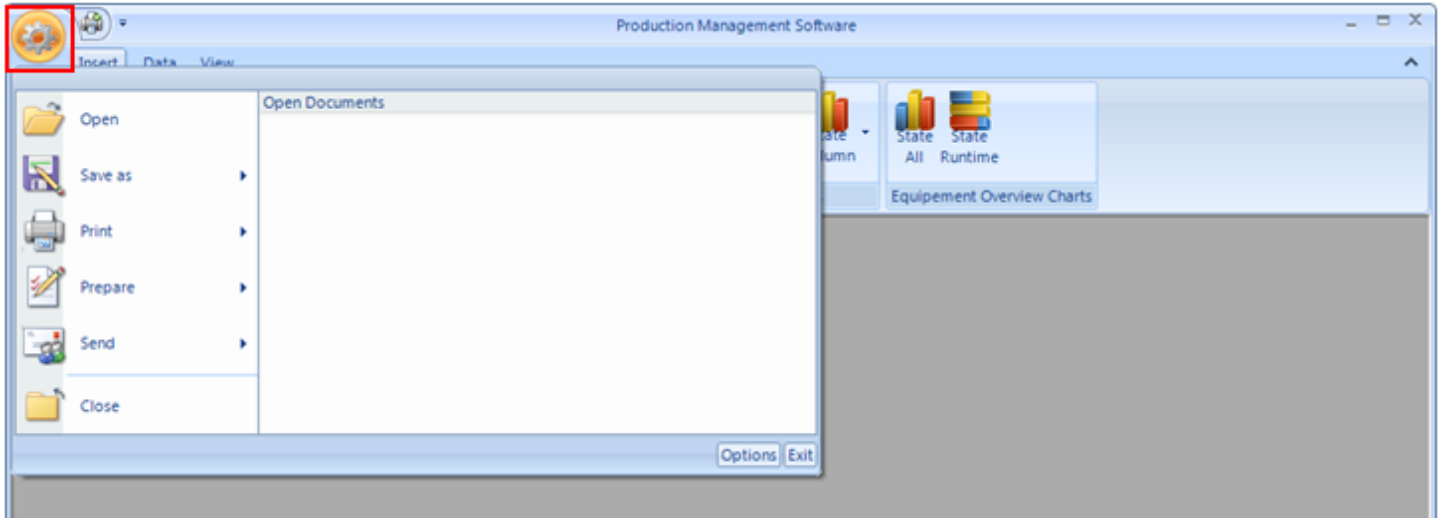
The Quick Access Toolbar is the small area to the upper left of the Ribbon. It contains some commands that you use over and over every day.



The ProMaSo Button  .

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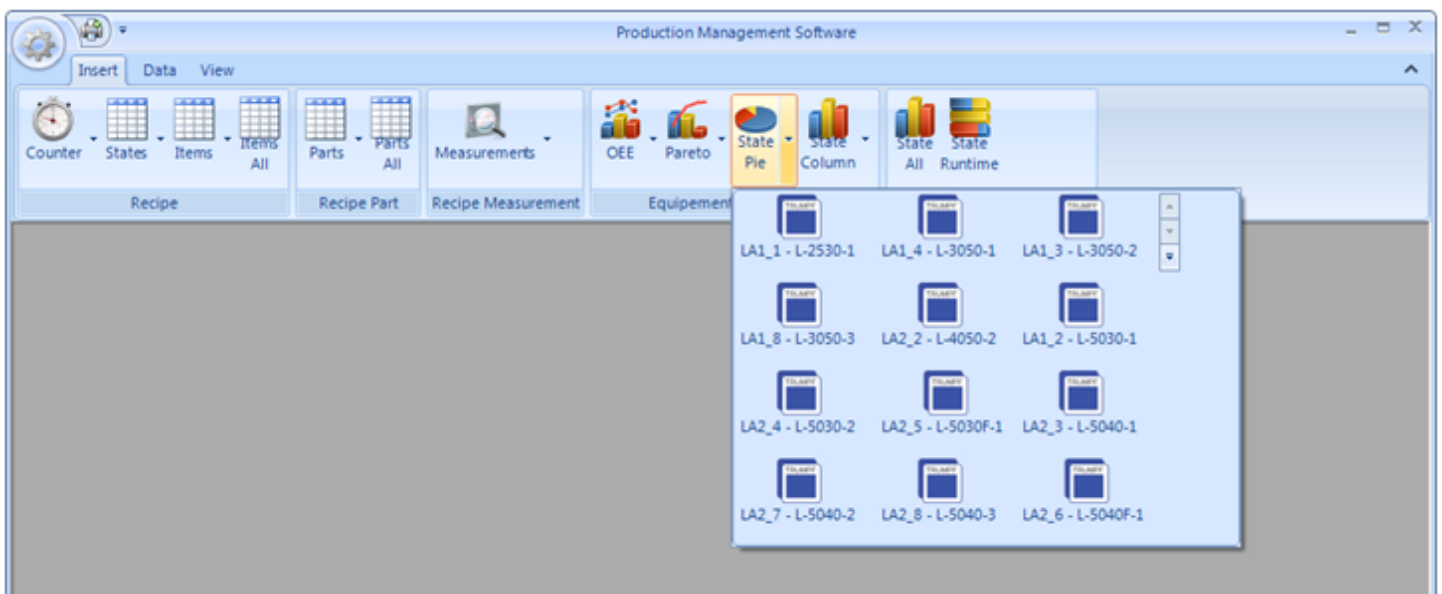
Click this button, in the upper-left corner of the program window, to get the basic commands to open, save, and print your reports.



2.2 Create reports

The ProMaSo user interface provides you with a clear and organized tools when you need them.

- Save time and take advantage of the powerful capabilities by selecting from the predefined reports.
- When you apply your report, you can choose the machine from the gallery.



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In ProMaSo you can create a report to the following formats.

- **PDF (Portable Document Format)** PDF is an electronic file with a fixed layout, so you can share the file. In PDF format, a file can be viewed online or printed. Moreover, the data in the file cannot be easily changed.
- **XLSX (Excel Document Format)** Excel is software that allows you to create tables, and can calculate and analyze data. Such software is called spreadsheet software. With Excel you can create own tables based on the data of the reports.

3 Insert a report

On the Ribbon, click the **Insert** tab. This will give you quick access to insert a predefined report.

3.1 Recipe Group

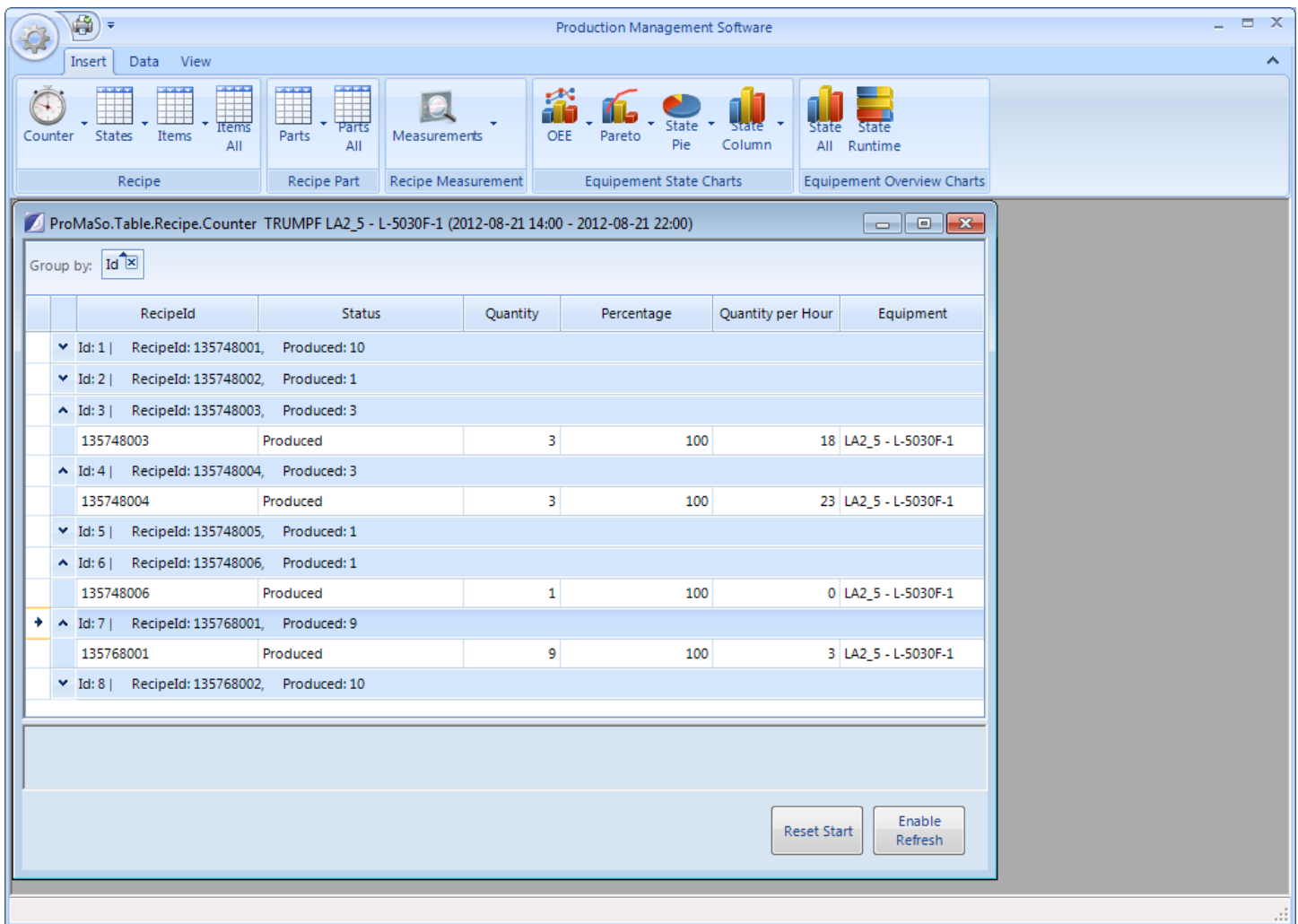
On the Ribbon, click the **Insert** tab, and in the **Recipe** group you have quick access to all reports related to items.

3.1.1 Counter

On the Ribbon, click the **Insert** tab, and in the **Recipe** group, click **Counter** and from the **Gallery** select the equipment.

The recipe counter shows the quantity produced.

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3.1.2 States

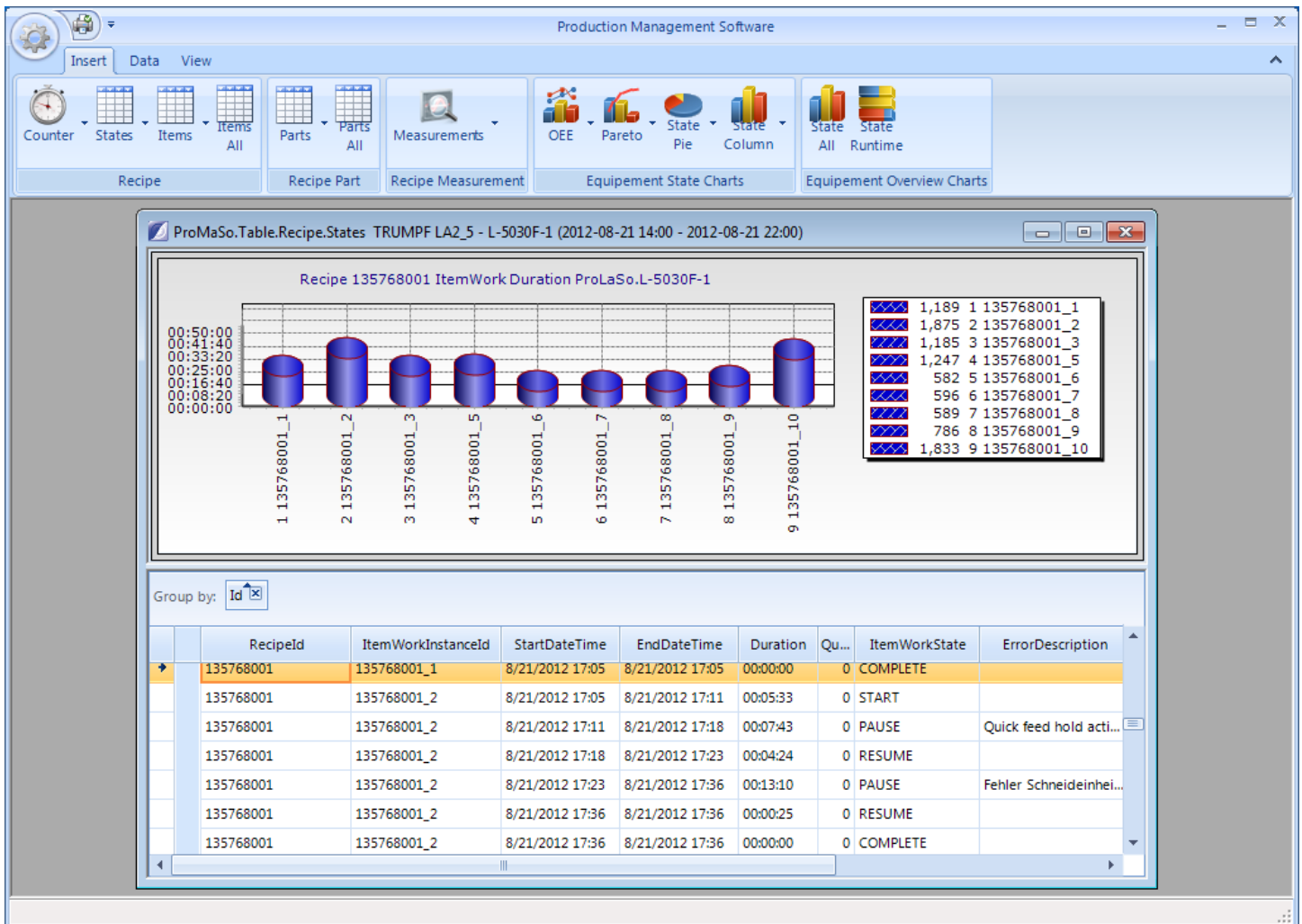
On the Ribbon, click the **Insert** tab, and in the **Recipe** group, click **States** and from the **Gallery** select the equipment.

Recipe States report shows the states for each item produced.

An item can have the following states: Start, Pause, Resume, Complete or Abort

- **START** is the state when the equipment begins executing its process on a product
- **PAUSE** is the state when the process execution on an item has been paused.
- **RESUME** is the state when the process work on an item has been restarted.
- **COMPLETE** is the state when the process work on an item is
- **ABORT** is the state when the process work that has been paused on an item is aborted.

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3.1.3 Items

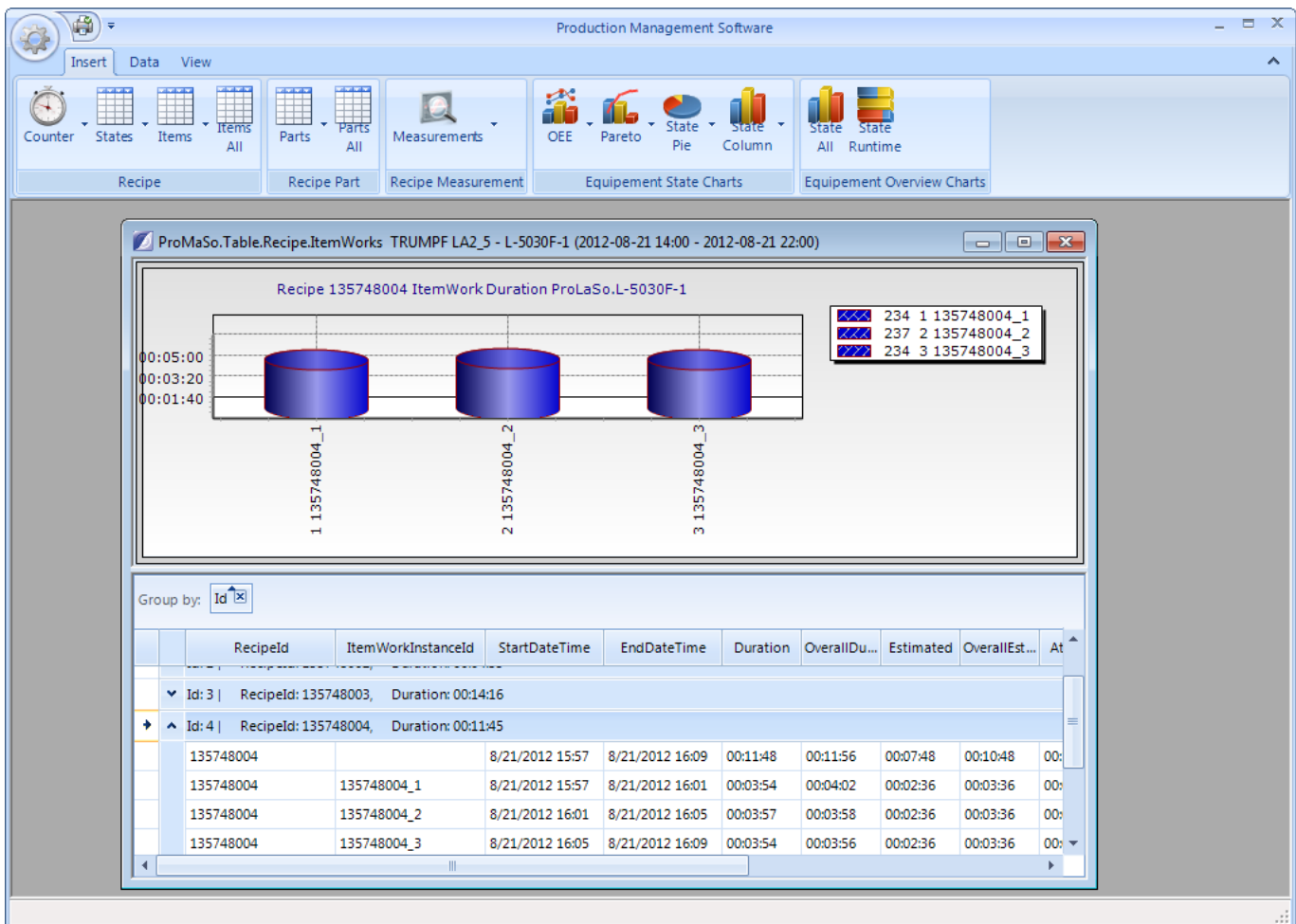
On the Ribbon, click the **Insert** tab, and in the **Recipe** group, click **Items** and from the **Gallery** select the equipment.

A Recipe Item report shows the items produced with their estimated and real times.

- DURATION of the process from start to complete/abort including the pause/resume durations.
- OVERALL DURATION of the process from complete/abort of the previous item to complete/abort including the pause/resume durations.
- ATTENDED duration of the Process from start to complete/abort not including the pause/resume durations. This attended duration can be compared with the estimated time.

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- **ESTIMATED** duration of the process from start to complete/abort. This estimated duration is calculated by the pre-processor.
- **OVERALL ESTIMATED** duration of the process from complete/abort of the previous item to complete/abort. It includes the process exchange time of the items. This overall estimated duration is calculated by the pre-processor.



3.1.4 Items All

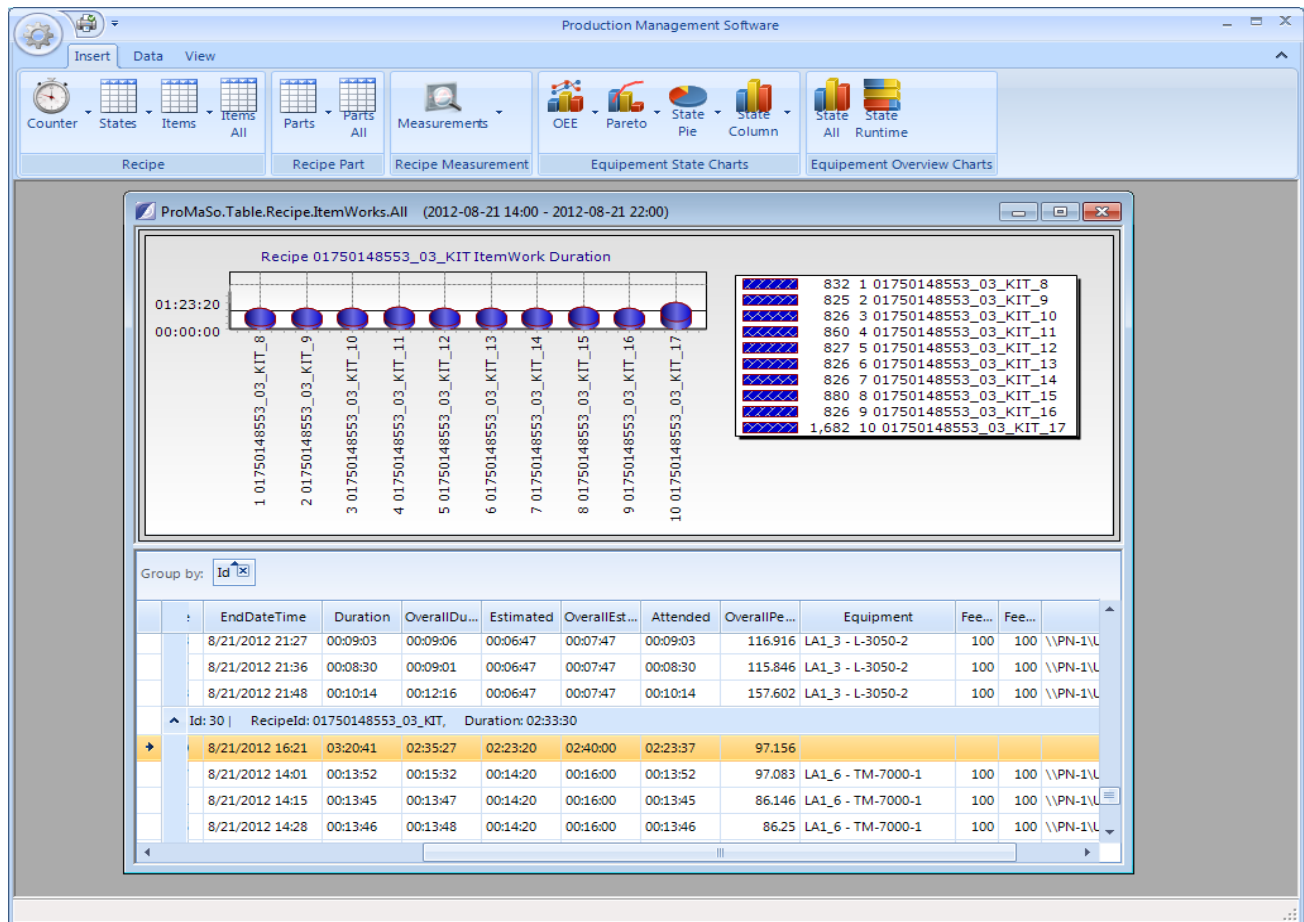
On the Ribbon, click the **Insert** tab, and in the **Recipe** group, click **Items All**.

Recipe items all report shows all items produced on all equipments with their estimated and real times.

- **DURATION** of the process from start to complete/abort including the pause/resume durations.
- **OVERALL DURATION** of the process from complete/abort of the previous item to complete/abort including the pause/resume durations.

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- **ATTENDED** duration of the Process from start to complete/abort not including the pause/resume durations. This attended duration can be compared with the estimated time.
- **ESTIMATED** duration of the process from start to complete/abort. This estimated duration is calculated by the pre-processor.
- **OVERALL ESTIMATED** duration of the process from complete/abort of the previous item to complete/abort. It includes the process exchange time of the items. This overall estimated duration is calculated by the pre-processor.



3.2 Recipe Part Group

On the Ribbon, click the **Insert** tab, and in the **Recipe Part** group you have quick access to all reports related to the parts in a item.

3.2.1 Parts

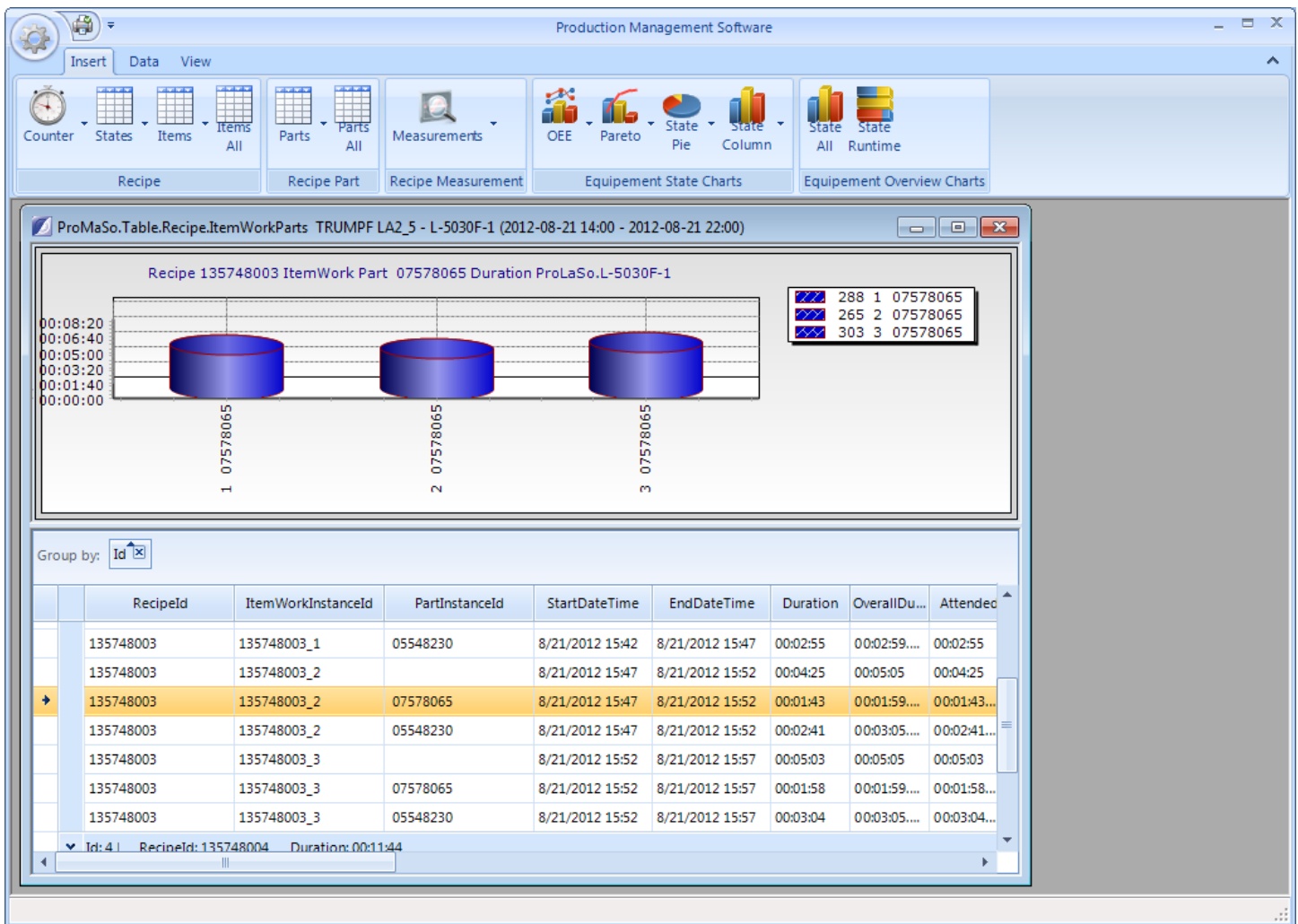
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On the Ribbon, click the **Insert** tab, and in the **Recipe Part** group, click **Parts** and from the **Gallery** select the equipment.

Recipe parts report shows for each item the parts produced with their estimated and real times..

- **DURATION** of the process from start to complete/abort including the pause/resume durations.
- **OVERALL DURATION** of the process from complete/abort of the previous item to complete/abort including the pause/resume durations.
- **ATTENDED** duration of the Process from start to complete/abort not including the pause/resume durations. This attended duration can be compared with the estimated time.
- **ESTIMATED** duration of the process from start to complete/abort. This estimated duration is calculated by the pre-processor.
- **OVERALL ESTIMATED** duration of the process from complete/abort of the previous item to complete/abort. It includes the process exchange time of the items. This overall estimated duration is calculated by the pre-processor.
- **BASE ESTIMATED** duration of the process from start to complete/abort if only one part must be produced (not nested).

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3.2.2 Parts All

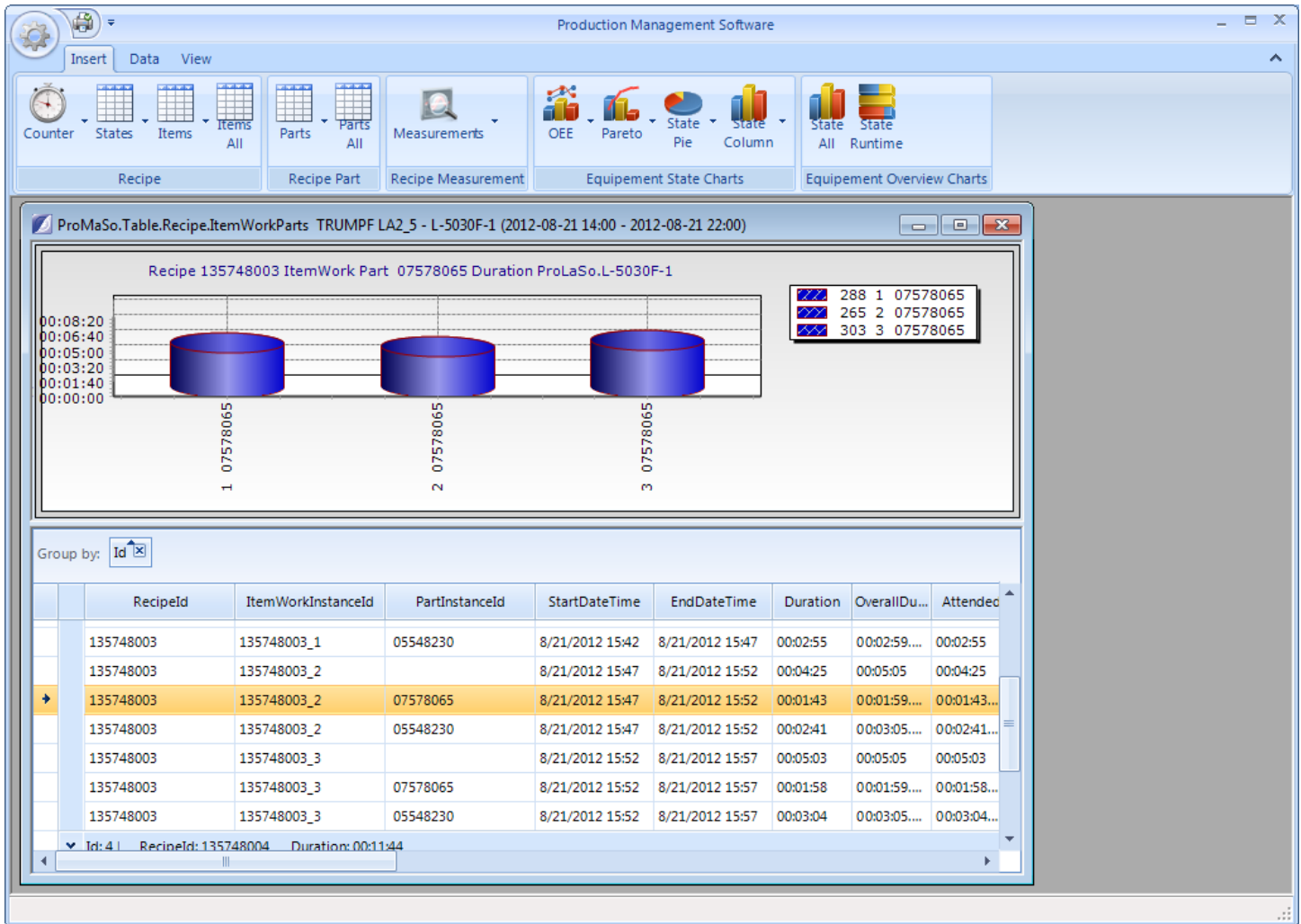
On the Ribbon, click the **Insert** tab, and in the **Recipe Part** group, click **Parts All**.

Recipe parts all report shows for each item the parts produced on all equipment with their estimated and real times.

- **DURATION** of the process from start to complete/abort including the pause/resume durations.
- **OVERALL DURATION** of the process from complete/abort of the previous item to complete/abort including the pause/resume durations.
- **ATTENDED** duration of the Process from start to complete/abort not including the pause/resume durations. This attended duration can be compared with the estimated time.
- **ESTIMATED** duration of the process from start to complete/abort. This estimated duration is calculated by the pre-processor.

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- OVERALL ESTIMATED duration of the process from complete/abort of the previous item to complete/abort. It includes the process exchange time of the items. This overall estimated duration is calculated by the pre-processor.
- BASE ESTIMATED duration of the process from start to complete/abort if only one part must be produced (not nested).



3.3 Recipe Measurements Group

On the Ribbon, click the **Insert** tab, and in the **Recipe Measurements** group you have quick access to all reports related to the measurements of an item.

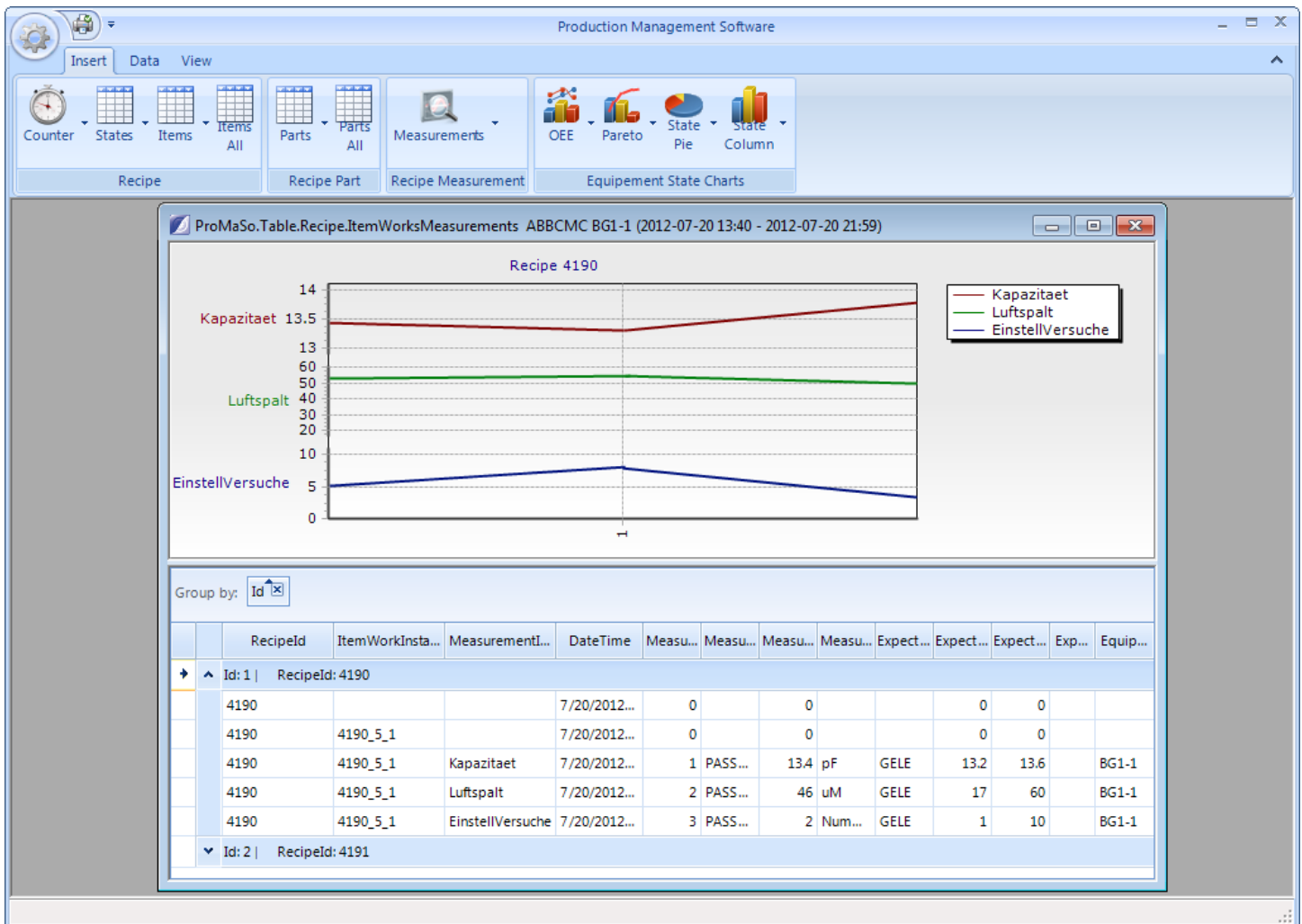
3.3.1 Measurements

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On the Ribbon, click the **Insert** tab, and in the **Recipe Measurements** group, click **Measurements** and from the **Gallery** select the equipment.

Recipe measurements report shows the measurements of the items produced.

- Each parameters has its own Y axis based on the minimum and maximum value of the parameter.



3.4 Equipment State Charts Group

On the Ribbon, click the **Insert** tab, and in the **Equipment State Charts** group you have quick access to all reports related to the equipment states.

3.4.1 Overall Equipment Effectiveness

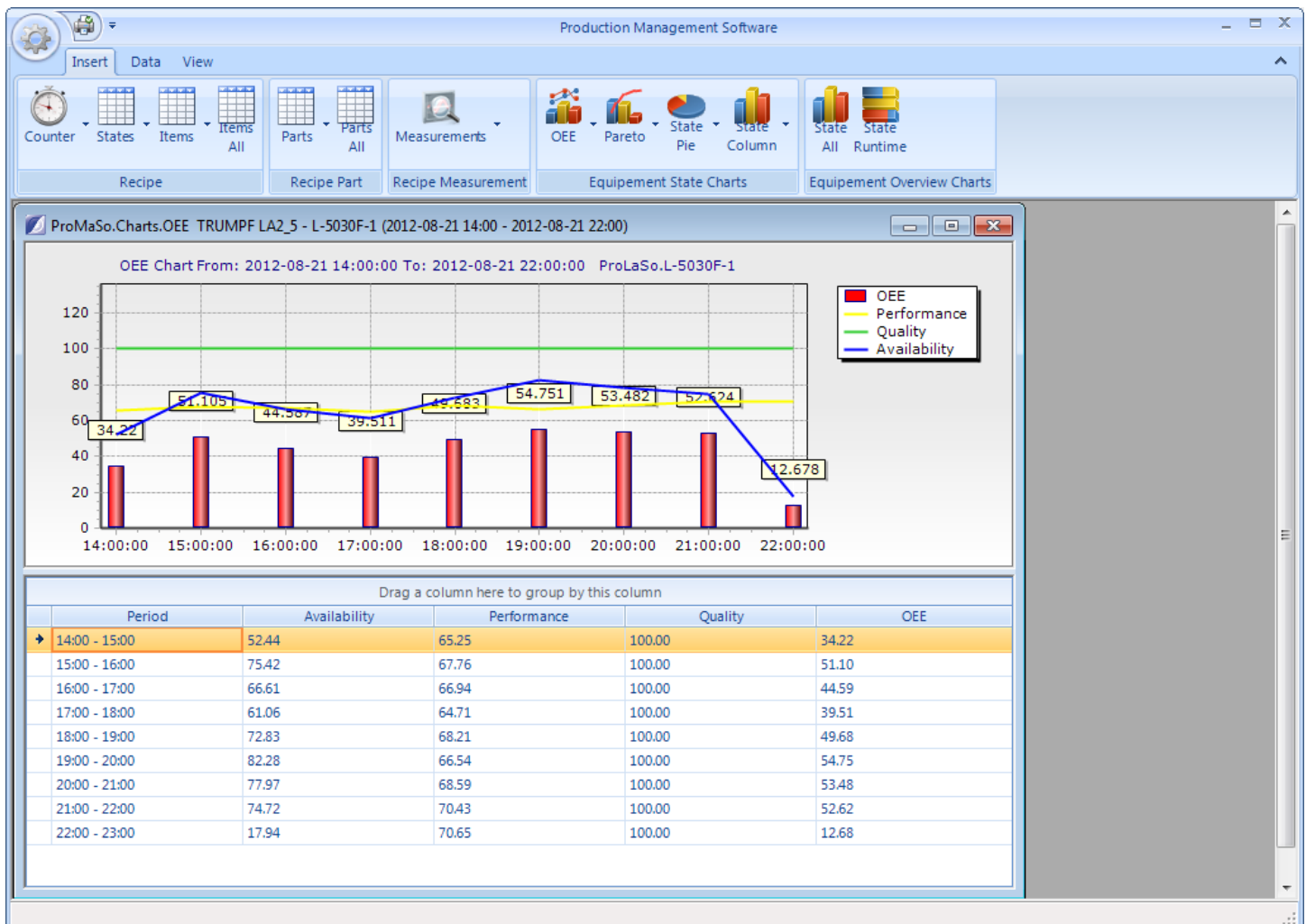
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On the Ribbon, click the **Insert** tab, and in the **Equipment State Charts** group, click **OEE** and from the **Gallery** select the equipment.

The OEE Industry Standard aims to give guidelines how to define OEE in order to find ALL potential losses in effectiveness. OEE begins with Planned Production Time and scrutinizes efficiency and productivity losses that occur, with the goal of reducing or eliminating these losses. There are three general categories of loss to consider - Down Time Loss, Speed Loss and Quality Loss.

$$\text{OEE} = \text{Availability} * \text{Performance} * \text{Quality}$$

- **AVAILABILITY** takes into account Down Time Loss, which includes any Events that stop planned production for an appreciable length of time.
- **PERFORMANCE** takes into account Speed Loss, which includes any factors that cause the process to operate at less than the maximum possible speed, when running
- **QUALITY** takes into account Quality Loss, which accounts for produced pieces that do not meet quality standards, including pieces that require rework.

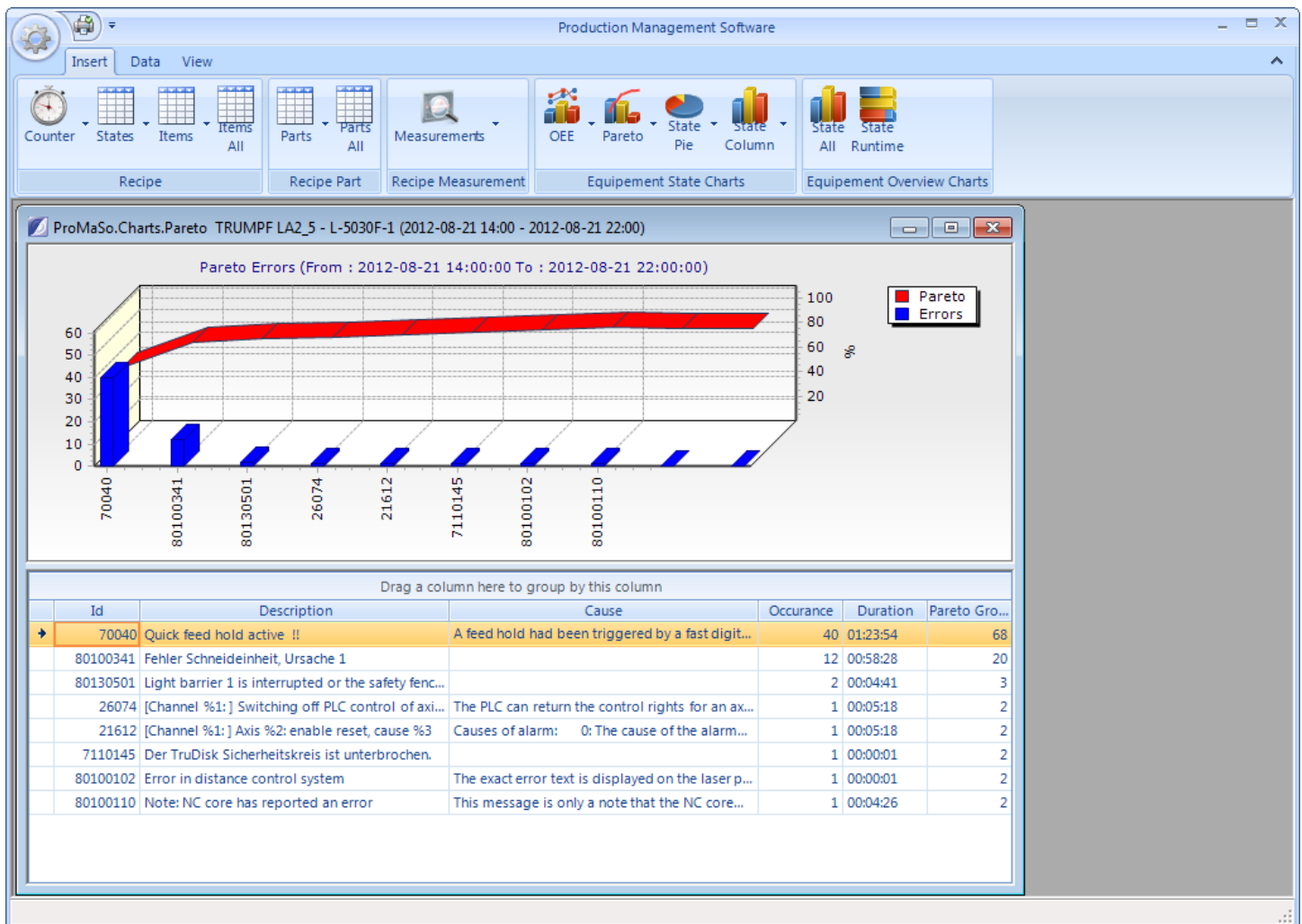


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3.4.2 Pareto

On the Ribbon, click the **Insert** tab, and in the **Equipment State Charts** group, click **Pareto** and from the **Gallery** select the equipment.

A Pareto analysis assumes that 80% of the problems caused by only 20% of the situation.



3.4.3 State Pie

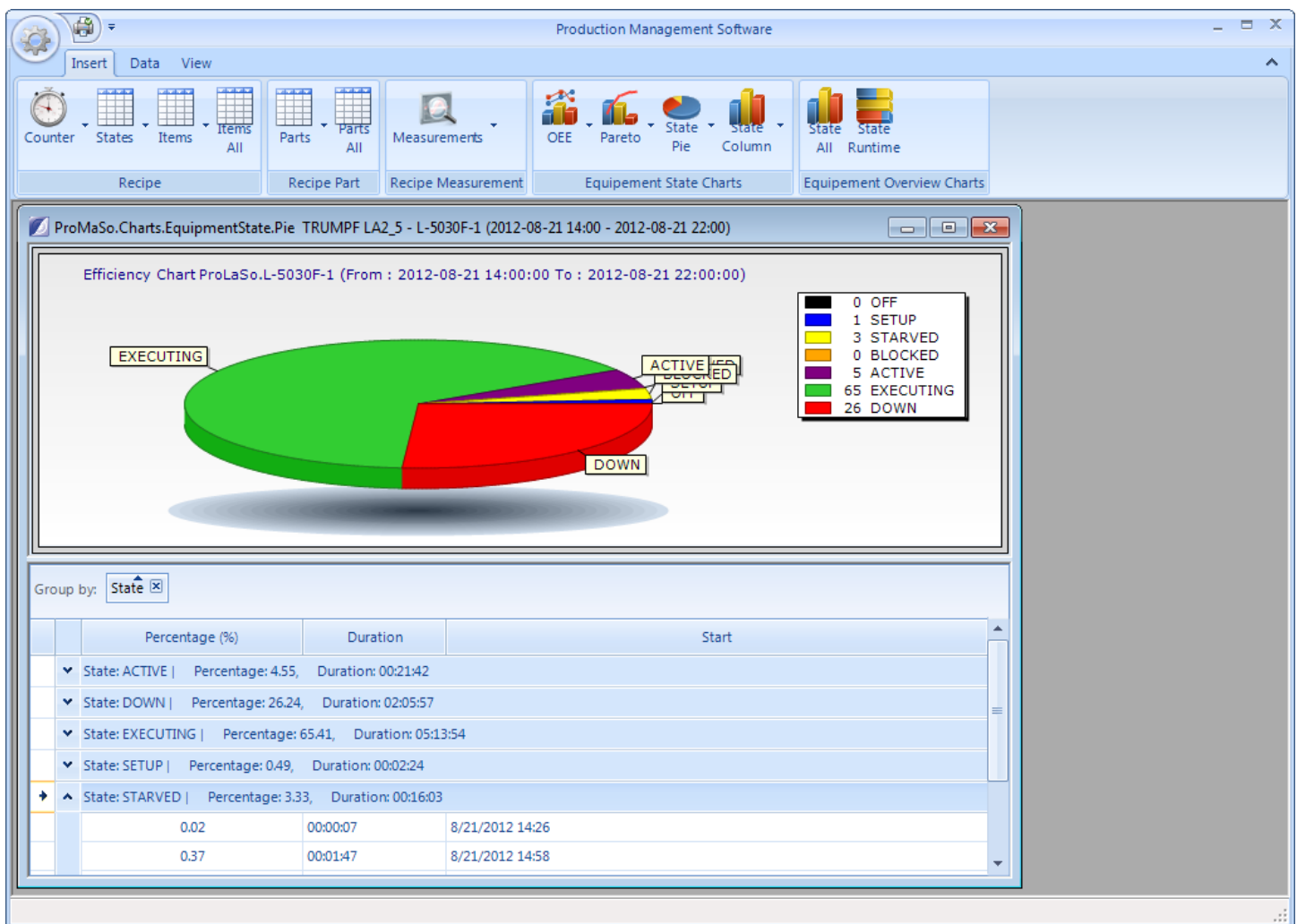
On the Ribbon, click the **Insert** tab, and in the **Equipment State Charts** group, click **State Pie** and from the **Gallery** select the equipment.

Pie charts display the contribution of each value to a total.

- OFF means that a piece of equipment has been powered down and is not available for production.

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- DOWN means that a piece of equipment cannot produce items either due to a lack of components or other consumable material, an equipment malfunction, host or operator intervention.
- SETUP means that a piece of equipment is being configured. Set-up involves a deliberate action being taken on the equipment.
- READY-IDLE-STARVED is the state when the equipment is empty and it can't pull any items in to work on.
- READY-IDLE-BLOCKED is the state when the equipment is full and it can't push any items out.
- READY-PROCESSING-ACTIVE is the state when an item is available but no recipe is being executed. This includes time intervals when items are transferring into a piece of equipment.
- READY-PROCESSING-EXECUTING is the state in which the equipment is executing a recipe



3.4.4 State Column

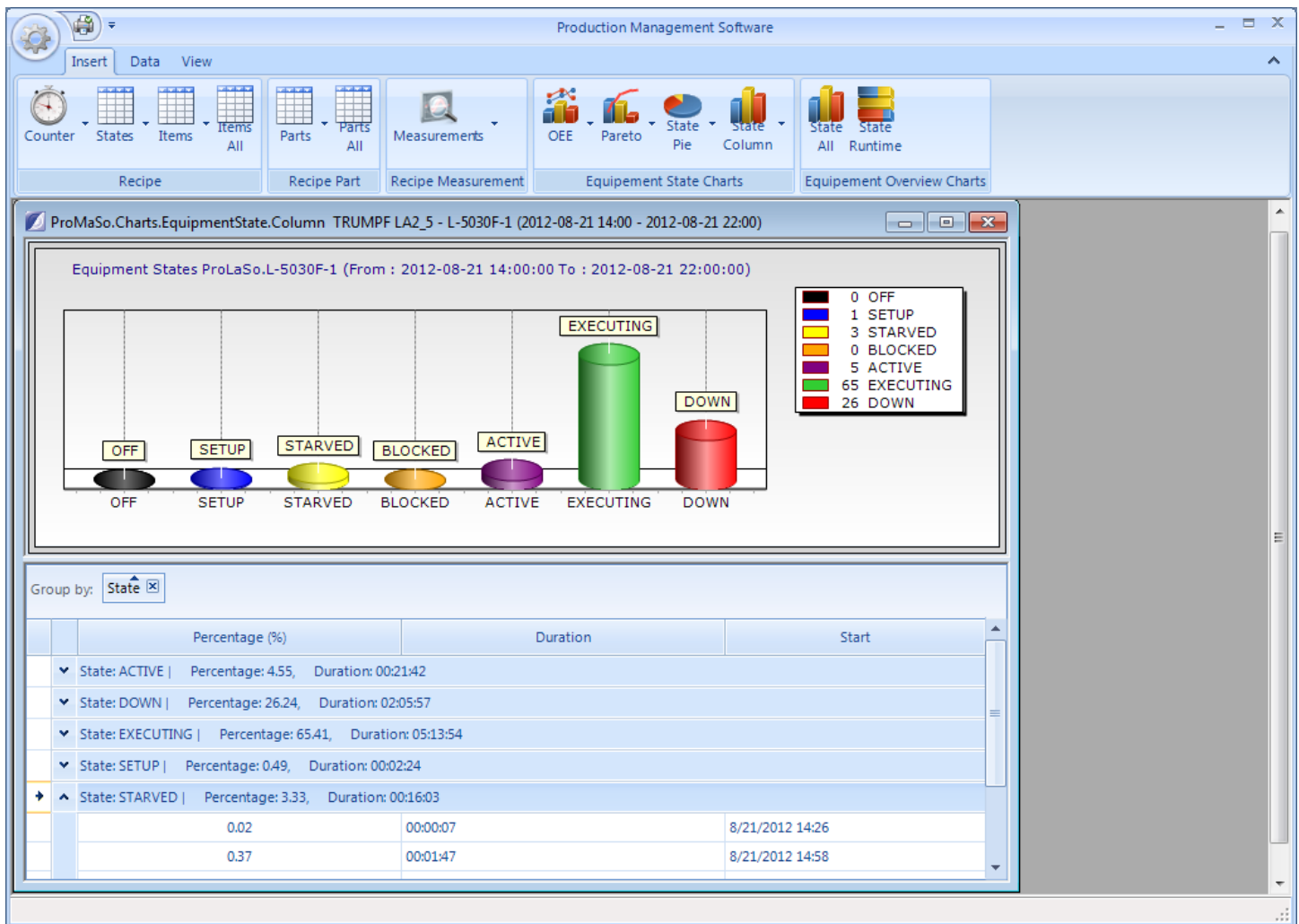
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On the Ribbon, click the **Insert** tab, and in the **Equipment State Charts** group, click **State Column** and from the **Gallery** select the equipment.

Column charts are used to compare values across categories.

- OFF means that a piece of equipment has been powered down and is not available for production.
- DOWN means that a piece of equipment cannot produce items either due to a lack of components or other consumable material, an equipment malfunction, host or operator intervention.
- SETUP means that a piece of equipment is being configured. Set-up involves a deliberate action being taken on the equipment.
- READY-IDLE-STARVED is the state when the equipment is empty and it can't pull any items in to work on.
- READY-IDLE-BLOCKED is the state when the equipment is full and it can't push any items out.
- READY-PROCESSING-ACTIVE is the state when an item is available but no recipe is being executed. This includes time intervals when items are transferring into a piece of equipment.
- READY-PROCESSING-EXECUTING is the state in which the equipment is executing a recipe

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3.5 Equipment Overview Charts Group

On the Ribbon, click the **Insert** tab, and in the **Equipment Overview Charts** group you have quick access to all reports related to the equipment.

3.5.1 State All

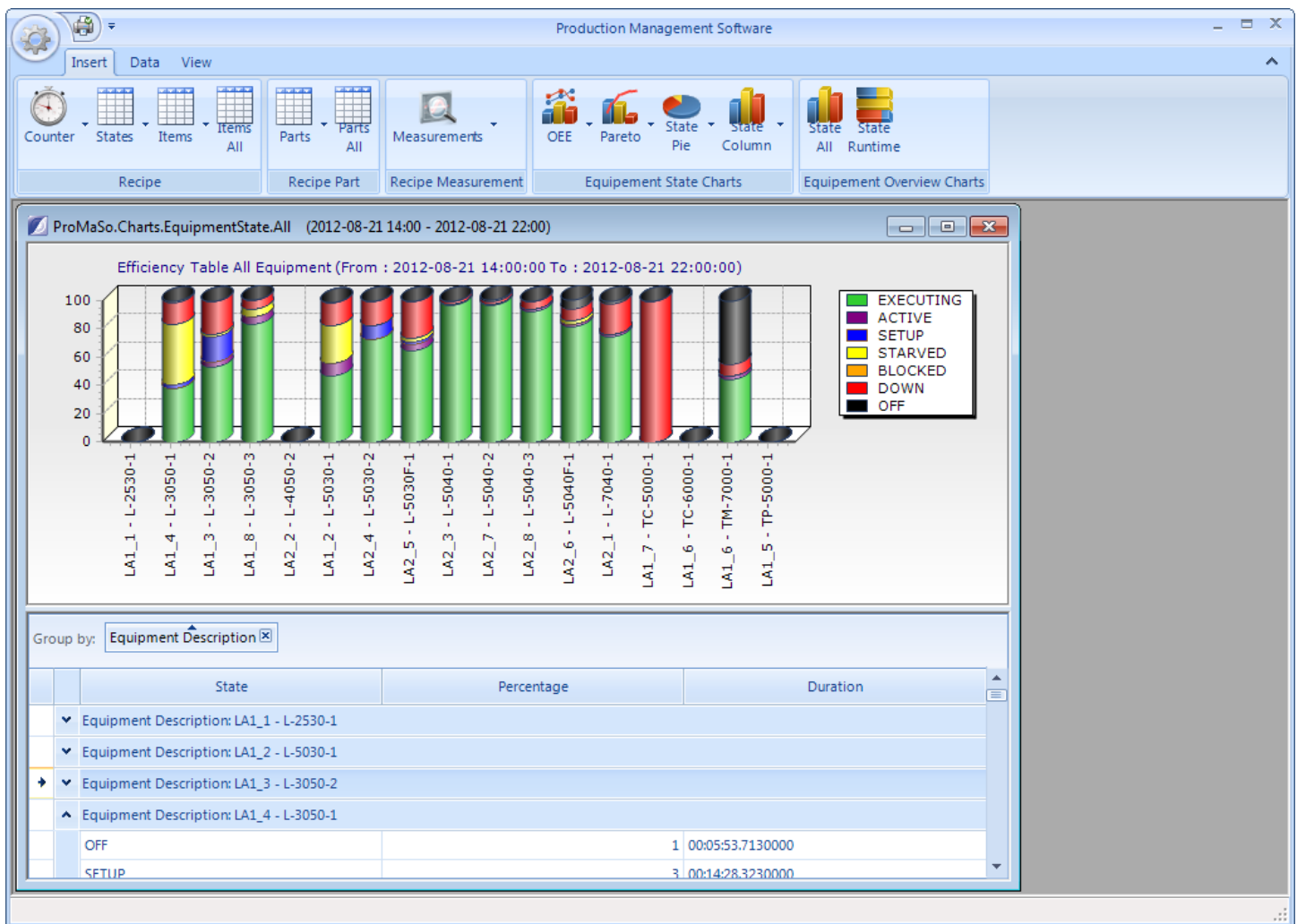
On the Ribbon, click the **Insert** tab, and in the **Equipment Overview Charts** group, click **State All**.

State all report shows the equipment states of all equipments.

- OFF means that a piece of equipment has been powered down and is not available for production.
- DOWN means that a piece of equipment cannot produce items either due to a lack of components or other consumable material, an equipment malfunction, host or operator intervention.

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- **SETUP** means that a piece of equipment is being configured. Set-up involves a deliberate action being taken on the equipment.
- **READY-IDLE-STARVED** is the state when the equipment is empty and it can't pull any items in to work on.
- **READY-IDLE-BLOCKED** is the state when the equipment is full and it can't push any items out.
- **READY-PROCESSING-ACTIVE** is the state when an item is available but no recipe is being executed. This includes time intervals when items are transferring into a piece of equipment.
- **READY-PROCESSING-EXECUTING** is the state in which the equipment is executing a recipe



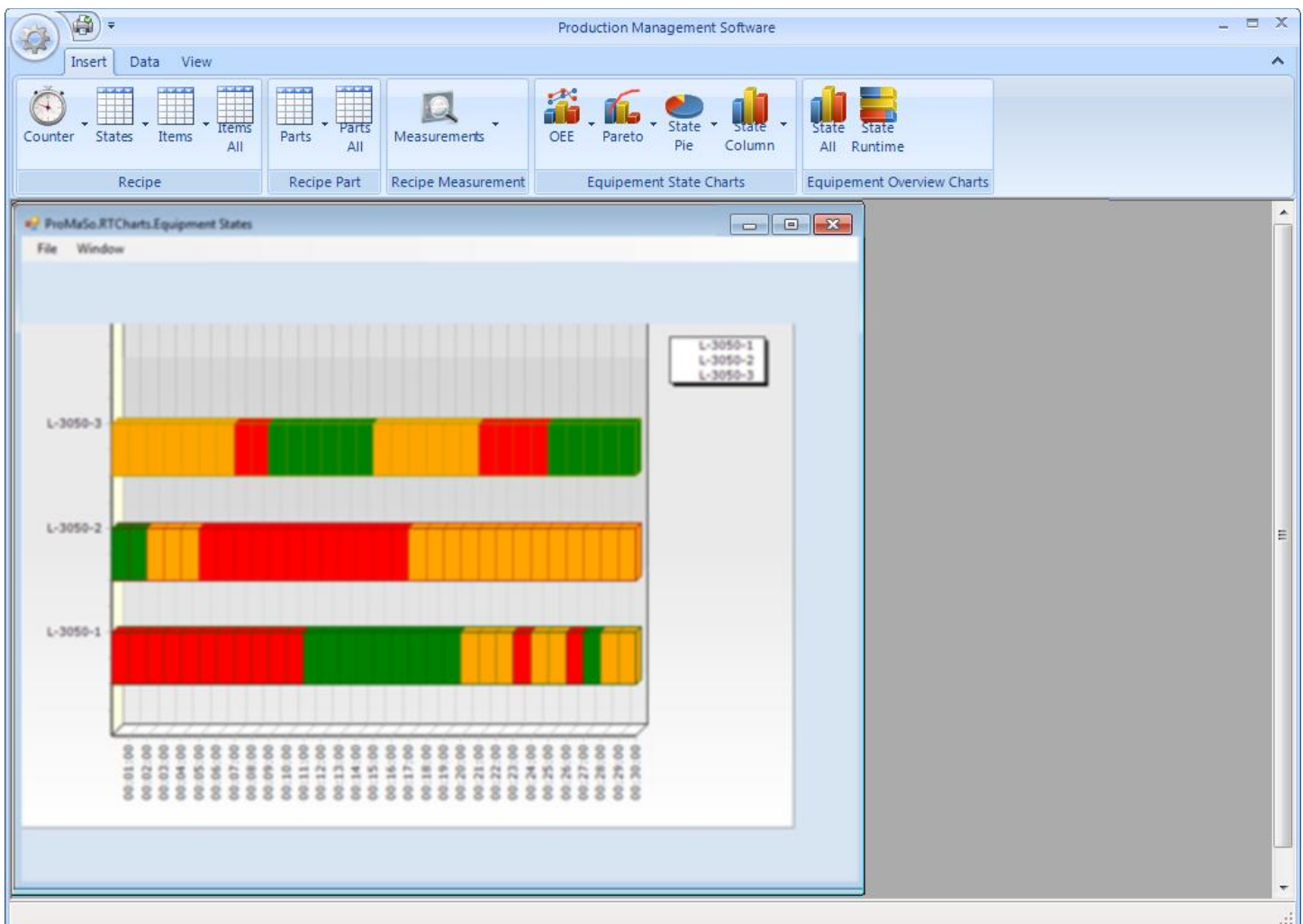
3.5.2 State Runtime

On the Ribbon, click the **Insert** tab, and in the **Equipment Overview Charts** group, click **State Runtime**.

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State Runtime report shows the state in real time of the selected equipment. After selecting all machines you want to view, the chart will be filled with the last statuses. The initial time is 15 minutes, and the chart will update every machine. The chart is updated every minute.

- OFF means that a piece of equipment has been powered down and is not available for production.
- DOWN means that a piece of equipment cannot produce items either due to a lack of components or other consumable material, an equipment malfunction, host or operator intervention.
- SETUP means that a piece of equipment is being configured. Set-up involves a deliberate action being taken on the equipment.
- READY-IDLE-STARVED is the state when the equipment is empty and it can't pull any items in to work on.
- READY-IDLE-BLOCKED is the state when the equipment is full and it can't push any items out.
- READY-PROCESSING-ACTIVE is the state when an item is available but no recipe is being executed. This includes time intervals when items are transferring into a piece of equipment.
- READY-PROCESSING-EXECUTING is the state in which the equipment is executing a recipe



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4 Data Filtering

On the Ribbon, click the **Data** tab. This will give you quick access to insert a predefined report.

4.1 Connections

On the Ribbon, click the **Data** tab, and in the **Connections** group you have quick access to all issues related to your connections.

4.1.1 Refresh the reports

On the Ribbon, click the **Data** tab, and in the **Connections** group, click **Refresh all** dropdown button and click on **Refresh All** to refresh all the reports or click **Refresh** to refresh the report of the current active window

4.1.2 Remove data

On the Ribbon, click the **Data** tab, and in the **Connections** group, click **Remove Data** dropdown button and click one of the dropdown items to remove the data older than selected.

This will keep your data compact and improve performance.

4.1.3 Connections

On the Ribbon, click the **Data** tab, and in the **Connections** group, click **Connections** button. The connections dialog will appear. Now you can test your database connection.

4.2 Sort and filter

On the Ribbon, click the **Data** tab, and in the **Sort and Filter** group you have quick access to all issues related to filter the displayed data.

4.2.1 Filter based on Shift

On the Ribbon, click the **Data** tab, and in the **Sort and Filter** group, click **Filter Shift** dropdown button and click on a **Shift** defined in the dropdown.

A quick access to specify shift as criteria to limit which records are included in the result set of a query.

4.2.2 Filter based on Day, Week or Month

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On the Ribbon, click the **Data** tab, and in the **Connections** group, click **Filter Day, Week or Month** button.

A quick access to specify today, this week or this month as criteria to limit which records are included in the result set of a query.

4.2.3 Advanced filtering

On the Ribbon, click the **Data** tab, and in the **Connections** group, click **Advanced** button.

To specify criteria to limit which records are included in the result set of a query. A dialog is shown where you can define the start and end data of the filter.

5 Arrange or Switch Between Windows

On the Ribbon, click the **View** tab. This will give you quick access to arrange your windows.

5.1 Window

On the Ribbon, click the **View** tab, and in the **Window** group you have quick access to arrange your open windows.

5.1.1 Compare Windows Side By Side

On the Ribbon, click the **View** tab, and in the **Window** group, click **Arrange All** .

A dialog will appear to tile all open windows side-by-side on the screen.

5.1.2 Save Workspace

On the Ribbon, click the **View** tab, and in the **Window** group, click **Save WorkSpace** .

Save the current layout of all windows as a workspace so that it can be restored later.

5.1.3 Switch Window

On the Ribbon, click the **View** tab, and in the **Window** group, click **Switch Window** .

Switch to a different currently open window.

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6 Prepare to use ProMaSo

6.1 Equipment Configuration

Click the **ProMaSo** button, in the upper-left corner of the program window, and in the left plane select **Prepare** and click **Equipment Configuration**.

ProMaSo.Resources.Configure

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CAMX Id: ProLaSo.L-5030F-1

Stage:

Sub Stage:

Model: L-5030F

Vendor: TRUMPF

Hardware Revision:

Software Revision: Browse

Operating System:

Attendance:

Line or Cluster: 2-5

Building:

Site: GERMANY

Enterprise:

Serial Number: A0230A2011

Machine Description: LA2_5 - L-5030F-1

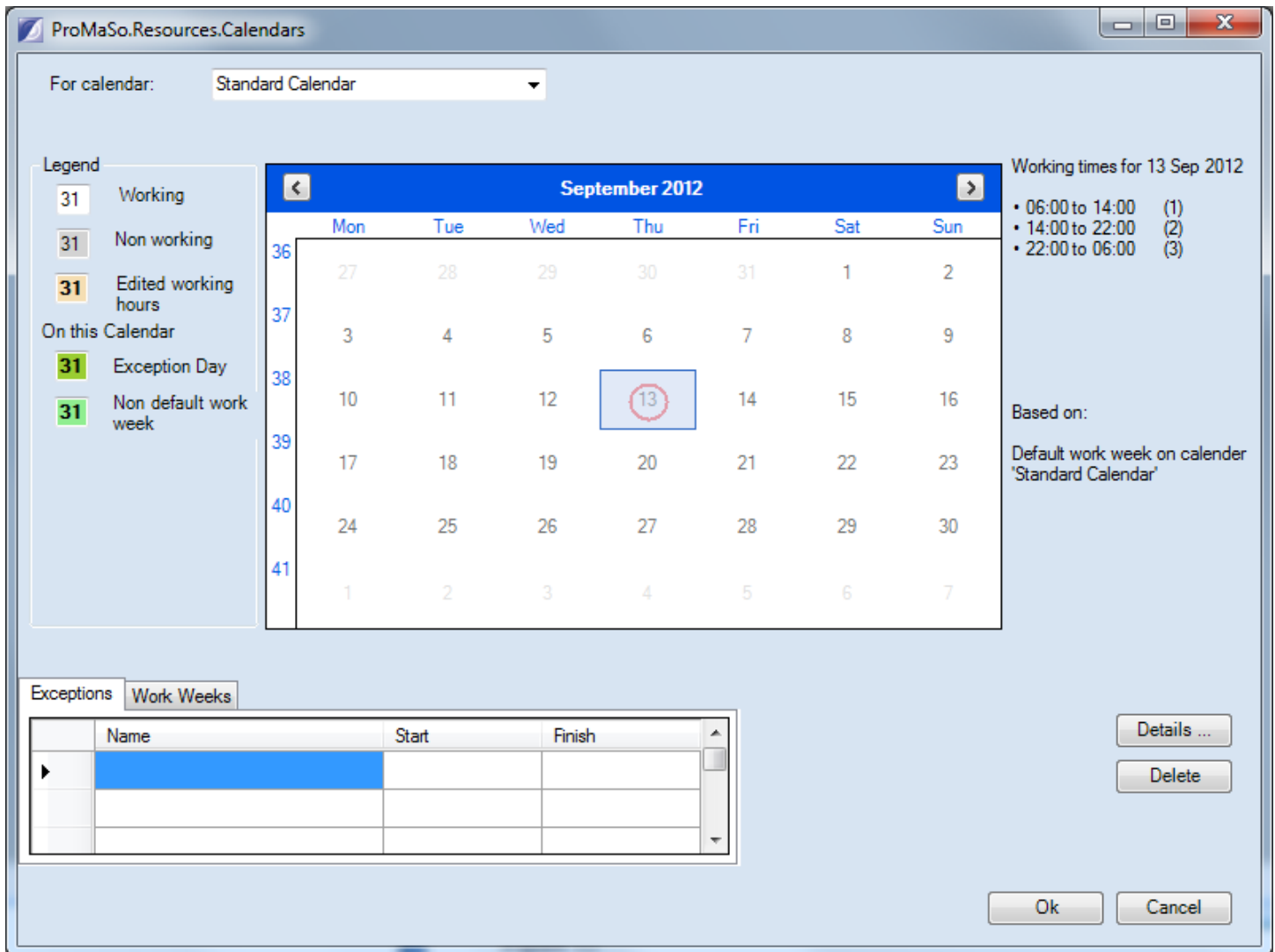
Ok Cancel

A dialog will show all configured equipment. The user can set the serial number and description of the equipment.

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6.2 Calendars

Click the **ProMaSo** button, in the upper-left corner of the program window, and in the left plane select **Prepare** and click **Calendars**.



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Under the calendars configuration company non working days or holidays can be entered. Also the daily working hours are set up. For all calculations, these calendars are taken in account.

6.3 Restrict Permissions

Click the **ProMaSo** button, in the upper-left corner of the program window, and in the left plane select **Prepare** and click **Restrict Permissions**.

The screenshot shows the 'ProMaSo.Resources.UserManagement' window. It contains several input fields for user configuration:

- Name: Admin
- Password: (masked with dots)
- First Name: Kurt
- Last Name: Proth
- User group: Administrator
- Building: (empty)
- Site: GERMANY
- Enterprise: (empty)

Below the fields is a table with 5 columns: Tab, Group, Item, and IsVisible. The 'Insert' tab is selected. The table lists various items and their visibility status.

Tab	Group	Item	IsVisible
Insert			<input checked="" type="checkbox"/>
	Recipe		<input checked="" type="checkbox"/>
		Counter	<input checked="" type="checkbox"/>
	States		<input checked="" type="checkbox"/>
		Items	<input checked="" type="checkbox"/>
		Items All	<input checked="" type="checkbox"/>
	Recipe Part		<input checked="" type="checkbox"/>
		Parts	<input checked="" type="checkbox"/>
		Parts All	<input checked="" type="checkbox"/>

At the bottom right of the window are 'Ok' and 'Cancel' buttons.

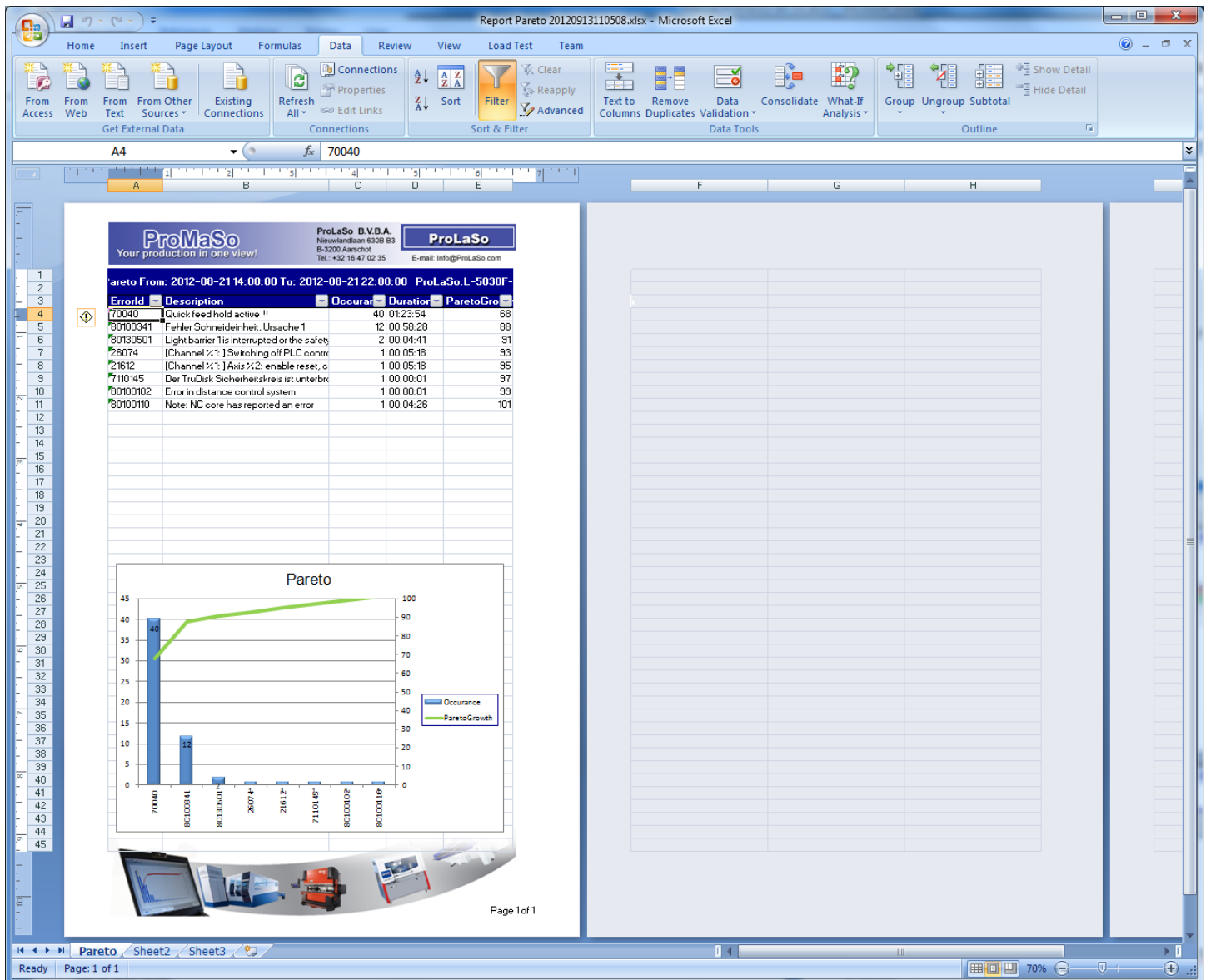
For the administrator of the ProMaSo package it is possible to add users, configure the visible parts of the insert tab or hide them.

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7 Export to Excel or PDF

7.1 Excel

Click the **ProMaSo** button, in the upper-left corner of the program window, and in the left plane select **Save As** and click **Excel Workbook** button.

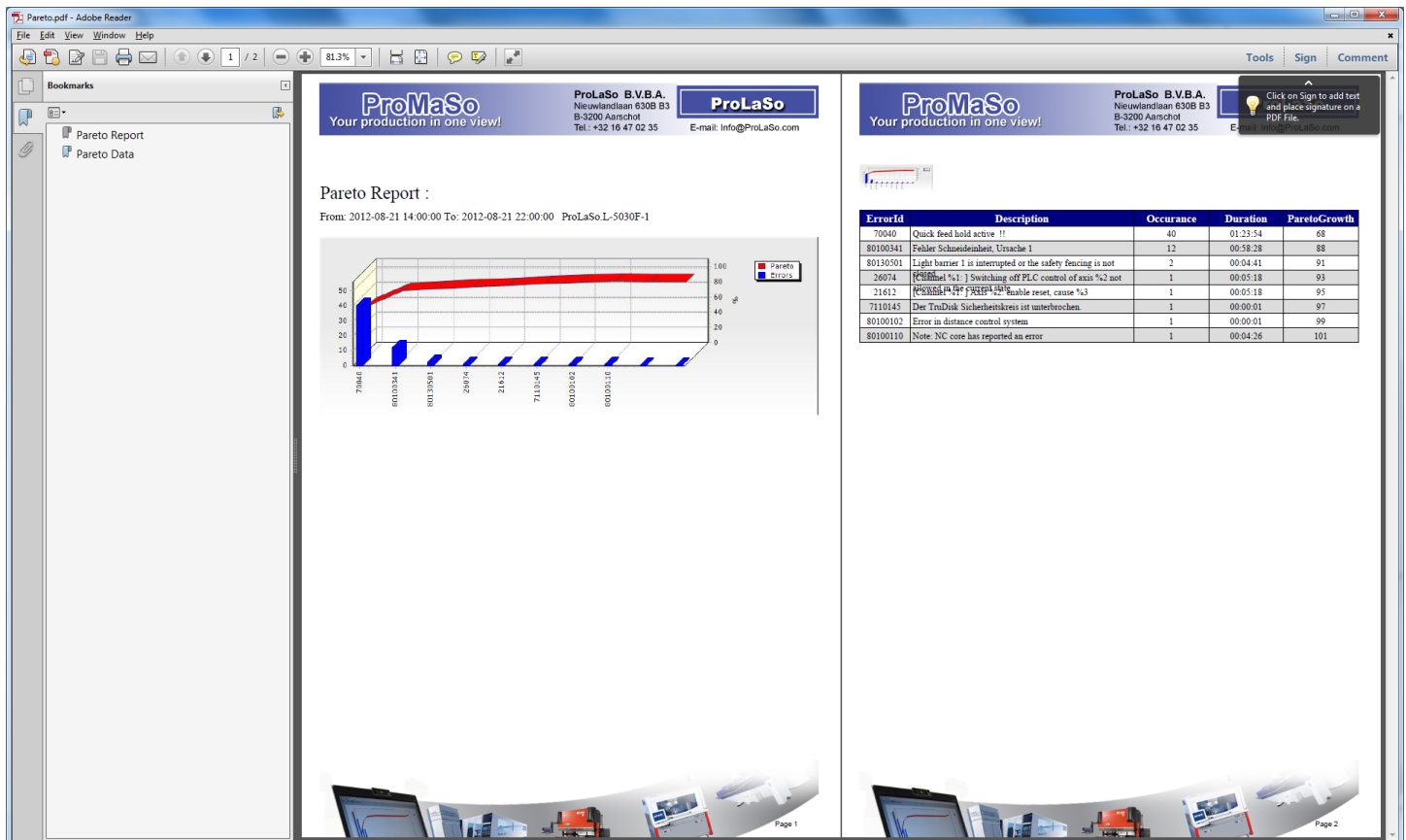


Excel templates are defined for each report. The first sheet of the workbook always contains the data. Most templates contain a pivot table and a pivot chart. Users can extend these templates.

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7.2 PDF

Click the **ProMaSo** button, in the upper-left corner of the program window, and in the left plane select **Save As** and click **Save as PDF** button.



8 External packages

For the metal sheet production industries a connection with Wicam, and also with TruTops are available. ProLaSo also has a module for communication with SAP and different databases. Through this module usage, a connection with other systems can be foreseen. For more information feel free to email us at info@ProLaSo.com.

9 Continuous development

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As being a ProMaSo user, you can cooperate at a better ProMaSo. Do not hesitate to send us ideas to make the software even better suite your needs. You can mail us at info@ProLaSo.com or development@ProLaSo.com

“Continuous improvement through continuous development”

The complete ProMaSo team thanks you as user for helping to improve our software!