



WELDCUBE PREMIUM

RELEASE 2.6

RELEASE DESCRIPTION

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1 OVERVIEW: NEW FUNCTIONS

Release 2.6 provides new functions, extensions and improvements of WeldCube Premium. Prerequisite for using release 2.5 with TPS/i is **TPS/i firmware version 2.0.2 or higher**.

The following list provides an overview of all news / changes functions with release 2.6:

- / Devices / machines
 - / Revised error management for TPS/i
 - / Freely configurable TCP port for connections with TPS/i
- / Consumption values
 - / Increased accuracy due to changes in gas cost input
- / Data interface / API
 - / Change of welding / part status

2 DEVICES / MACHINES

2.1 Revised error management for TPS/i

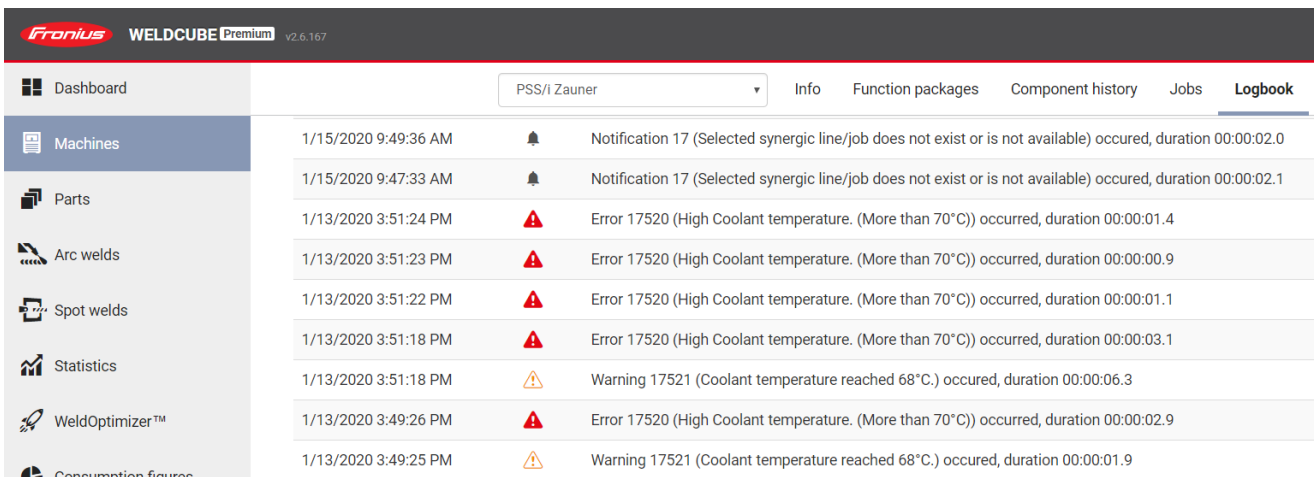
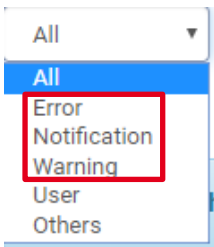
The 3 states

- / Error
- / Warning
- / Notification

provided by TPS/i are now also documented and evaluated in WeldCube Premium. They are combined under the umbrella term "Alert".

2.1.1 Logbook

The TPS/i logbook contains entries for all 3 states:



Timestamp	Icon	Description
1/15/2020 9:49:36 AM	Bell	Notification 17 (Selected synergic line/job does not exist or is not available) occurred, duration 00:00:02.0
1/15/2020 9:47:33 AM	Bell	Notification 17 (Selected synergic line/job does not exist or is not available) occurred, duration 00:00:02.1
1/13/2020 3:51:24 PM	Error	Error 17520 (High Coolant temperature. (More than 70°C)) occurred, duration 00:00:01.4
1/13/2020 3:51:23 PM	Error	Error 17520 (High Coolant temperature. (More than 70°C)) occurred, duration 00:00:00.9
1/13/2020 3:51:22 PM	Error	Error 17520 (High Coolant temperature. (More than 70°C)) occurred, duration 00:00:01.1
1/13/2020 3:51:18 PM	Error	Error 17520 (High Coolant temperature. (More than 70°C)) occurred, duration 00:00:03.1
1/13/2020 3:51:18 PM	Warning	Warning 17521 (Coolant temperature reached 68°C.) occurred, duration 00:00:06.3
1/13/2020 3:49:26 PM	Error	Error 17520 (High Coolant temperature. (More than 70°C)) occurred, duration 00:00:02.9
1/13/2020 3:49:25 PM	Warning	Warning 17521 (Coolant temperature reached 68°C.) occurred, duration 00:00:01.9

2.1.2 Welding list

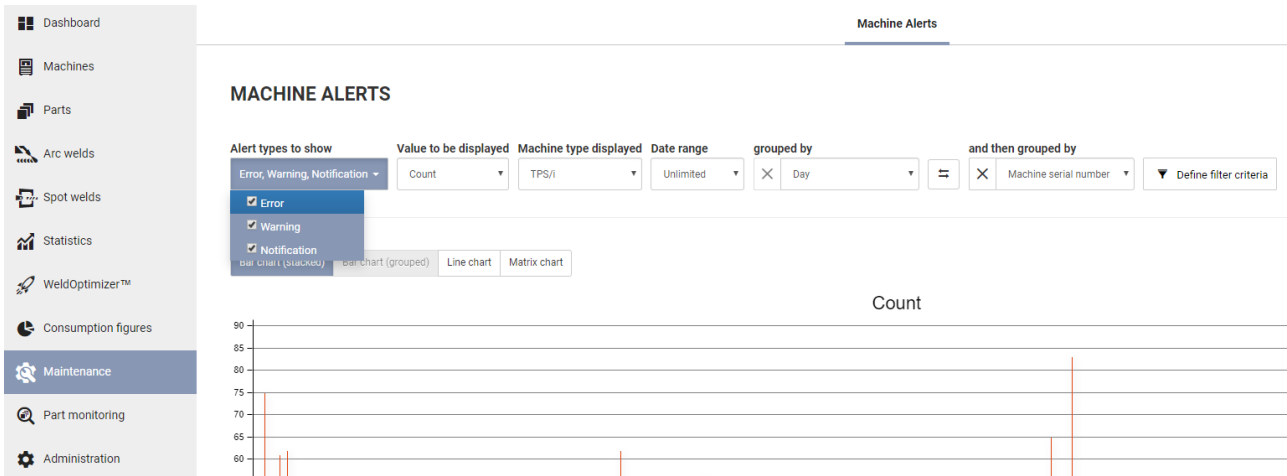
In the welding list, errors and notifications are merged in the "Errors" field so that the entries do not have to be duplicated.

2.1.3 Welding details

The weld details also include merged information on errors and notifications, since a notification should not occur during a weld.

2.1.4 Maintenance / error statistics

The error statistics have been reworked so that "alerts" can be handled. There is now a new selection field in which the desired state can be selected:



In the "Value to be displayed" selection box, the two options have been renamed to "Count" and "Duration". This has also been implemented in the filter wizard.

The available error list has also been redesigned and now includes an icon to visualize the 3 state options

- / Error
- / Warning
- / Notification

		16705		Rotor adjustment failed.	Switch the power source off and on. Reconnect torch hose pack. Contact Support.
		16707		Lost connection between welding torch and wire feeder during welding process.	Check torch hose pack. Contact support.
		16711		Error on the wire feed system. The deviation from the set wire feed speed to the real value is too much.	Contact service. Change wire feeder.
		16712		Motor current limit exceeded.	Check wire feed hoses, inner liner, wire spool, wire drum,... Wire should be easy to feed.
		16825		Wire buffer full.	Check feeding system between Splitbox and Drive. ; Replace wareparts
		16826		Wire buffer empty.	Check feeding system between Splitbox and wire spool / wire drum.; Replace wareparts
		16827		External motor (e.g. Pull Mig) not ready.	During System Start up (initialisation) a welding start was executed (torch trigger). Wait until system is ready.
		16832		Set value of gas flow not reached.	Check gas supply, Check if supply pressure is good, Check gas nozzle for gas blockage, kinks in Gas line
		16837		Wire end detected on ring sensor.	Install new wire drum or spool. If wire is present with Error please check on SmartManager, tab "Overview" if Wire end sensor is logged on. Replace sensor.
		17324		Fan faulty.	Contact support.
		17582		Coolant flow less than 0.4 liter/minute.	Check water hoses for pollution, kinks or damage.
		18224		Robot is not ready. Robot ready signal is not set.	Check robot signals. Contact support.



ATTENTION:

Due to the necessary renaming of variables due to these adjustments, existing reports or dashboard widgets may no longer function.



2.1.5 Machine live view, dashboard and hall plan

All 3 views have been extended so that the status / state is displayed correctly.

2.2 Freely configurable TCP port for connections with TPS/i

In the connection settings of the machine configuration menu, the port can now be specified in addition to the IP address for TPS/i systems. This makes it possible to establish connections to machines, even if a port extension (NAT) is used.

MACHINE CONFIGURATION

Synchronise with time server

Off Synchronize TPS/MW/TT machine times

Off Propagate time server to supported machines

Data collection

IP addresses for TPS/MW/TT machines

IP addresses for TPS/i machines

Machine accessibility

IP address

3 CONSUMPTION VALUES

3.1 Increased accuracy due to changes in gas cost input

The gas costs are now displayed in the administration page rounded to six decimal places:

The screenshot shows a web application interface with a sidebar on the left containing menu items: Dashboard, Machines, Parts, Arc welds, Spot welds, Statistics, WeldOptimizer™, Consumption figures, Maintenance, Part monitoring, and Administration (highlighted). The top navigation bar includes: Machines, Parts, Materials (selected), WeldCube, User, System, and About.

The main content area is titled 'WELDING GASES' and contains a table with two columns: 'Gas name' and 'Arc gas costs [Gassi/l]'. The table lists the following gas types and their corresponding costs:

Gas name	Arc gas costs [Gassi/l]
C1 100% CO2	4,245897
I1 100% Ar	1,234567
M12 Ar+2,5%CO2	0
M20 Ar+8-10%CO2	0
M21 Ar+15-20%CO2	0
M21 Ar+18%CO2	0.004
M22 Ar+3-5%O2	0
no Gas	0

At the bottom of the table, there are two buttons: 'Cancel' and 'Save'.

In the database, however, the full accuracy entered is stored.

The calculation of consumption figures and statistics does not change, because the full accuracy was already used for calculation before implementing this feature.

4 DATA INTERFACE / API

4.1 Change of welding / part status

The API of WeldCube Premium has been extended so that the part or welding status can now be changed via API.

4.1.1 Welding Call

POST /api/v2/Welds/{weldId}/ChangeState

Change the state of the weld

The Welding Call determines the status to be set. For this reason, you should first query the current status of the weld.

The call returns the updated object.

Parameters:

- / weldId → GUID of the welding (ID)
- / explanation → Justification of the change
- / user → which user / which station did the call

4.1.2 Parts Call

POST /api/v2/Parts/{partItemNumber}/{partSerialNumber}/CorrectState

Change the state of a part to Ok

The Parts Call only works for parts whose status is "not OK". The call returns the updated object.

Parameters:

- / partSerialNumber → serial number of the part
- / partItemNumber → item number of the part
- / explanation → Justification of the change
- / user → which user / which station did the call