



WELDCUBE PREMIUM

RELEASE 2.1

RELEASE-DESCRIPTION

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1 OVERVIEW: NEW FUNCTIONS

Release 2.1 provides several news and improvements of our WeldCube application.

TPS/i firmware version 1.8.6 is required for using release 2.1 together with TPS/i.



The following lists provides an overview of all new functions with release 2.1:

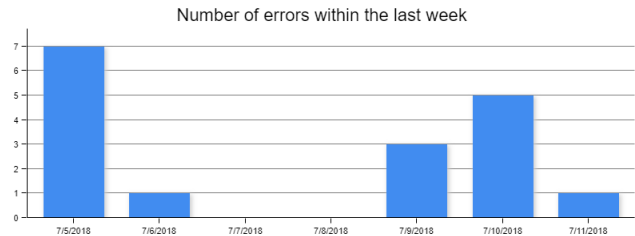
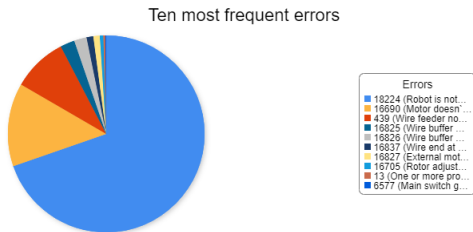
- / General
 - / Extensions for TPS/i machine information page
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- / Actual values
 - / Fixed table head for welding lists
 - / Robot welding speed for TPS/i
- / Statistics & analysis
 - / Automatic reports via e-mail
 - / New grouping options
- / User administration
 - / Hiding the welding system's user

2 GENERAL

2.1 Extensions for TPS/i machine information page

The error statistics already known from TPS / TT / MW is now also available at the TPS/i machine information page. It is located directly below the component overview:

Operation status summary



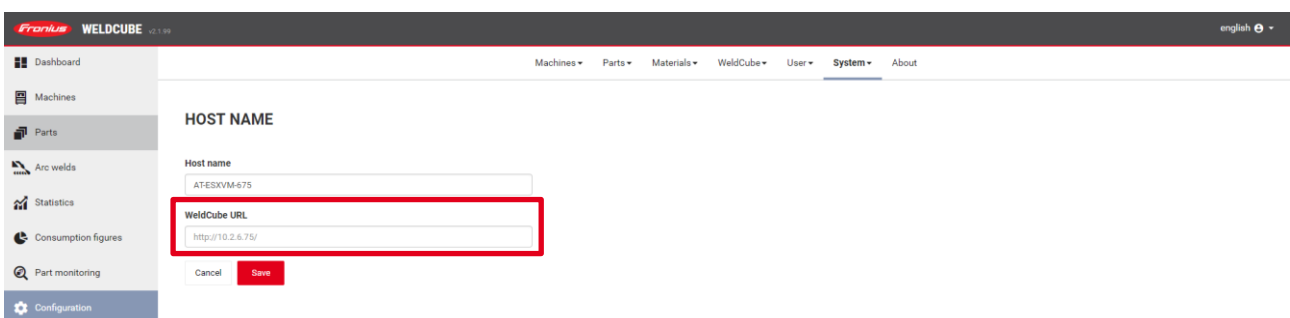
The left pie chart shows the 10 most frequent error (independent from period of time) while the bar chart on the right shows the number of errors that occurred during the last week.

2.2 Delivering terms of use

WeldCube terms of use will as of now be delivered together with the software. The link to www.fronius.com is thus no longer included.

2.3 WeldCube URL

A new field for WeldCube URL is now available at “configuration” → “system” → “host name”:



HOST NAME

Host name
AT-ESXVM-675

WeldCube URL
http://10.2.6.75/

Cancel Save

The entry of this field will be used for links within PDF exports in order to create consistent links.

Attention:

If this WeldCube URL is not correct, the links within the PDF exports will not work.

3 ACTUAL VALUES

3.1 Fixed table head for welding lists

Table heads of TPS/i, TPS, TT, MW and Delta Spot welding lists are fixed as of now. Thus, column headings will always be visible even when scrolling:

Fronius WELDCUBE v1.1.0		TPS/i TPS/MW/TT							
	Time stamp	Duration [s]	Limit violations	Error	Seam number	Part item number	Part serial number	Machine	Welder
Machines	7/10/2018 3:42:42 PM	3.5	-	-	8390			TPS 500i	admin
Parts	7/10/2018 3:42:38 PM	4.2	-	-	1059			TPS320i	admin
Arc welds	7/10/2018 3:42:33 PM	3.3	-	-	8388			TPS 500i	admin
Statistics	7/10/2018 3:42:30 PM	3.4	-	-	1058			TPS320i	admin
Consumption figures	7/10/2018 3:42:27 PM	3.2	-	-	8387			TPS 500i	admin
Part monitoring	7/10/2018 3:42:21 PM	3.0	-	-	8386			TPS 500i	admin
Configuration	7/10/2018 3:42:20 PM	3.8	-	-	1057			TPS320i	admin
	7/10/2018 3:42:16 PM	3.8	-	-	8385			TPS 500i	admin
	7/10/2018 3:42:11 PM	3.7	-	-	8384			TPS 500i	admin
	7/10/2018 3:42:08 PM	0.4	-	-	1056			TPS320i	admin

3.2 Robot welding speed for TPS/i

WeldCube will now also visualize the welding speed for TPS/i robotic systems. In order to do so, the speed has to be available within the documentation stream. Thus, it has to be given to the welding system by the robot via the interface.

Visualisation for weld details



Visualisation for CSV export

Id	Weld date	Seam number	Part serial no	Part item no	Machine serial	Welder	Error code										
057c08be-d2	2018-07-11 0	8574			28157932	admin											
Type	Version																
TPSI		3															
Time stamp	Section	Current [A]	Voltage [V]	Wire speed [cm/min]	Power [W]	Welding speed [cm/min]	Lower current	Upper current	Lower voltage	Upper voltage	Lower wire speed	Upper wire speed	limit exceeded				
00:00:00.100	1	214.627	8.376.764	1.793.662	236.450	0	0	0	0	0	0	0	0				
00:00:00.200	2	1.260.478	1.481.227	3.149.357	2.273.830	0	0	0	0	0	0	0	0				
00:00:00.300	2	1.372.087	1.615.625	5.294.738	2.443.400	0	0	0	0	0	0	0	0				
00:00:00.400	2	1.761.145	1.664.482	7.133.101	3.187.510	0	0	0	0	0	0	0	0				
00:00:00.500	2	1.841.677	1.646.976	7.559.135	3.324.120	0	0	0	0	0	0	0	0				
00:00:00.600	2	1.814.066	1.623.407	7.392.404	3.305.690	0	0	0	0	0	0	0	0				
00:00:00.700	2	1.397.853	1.478.605	6.191.677	2.470.670	0	0	0	0	0	0	0	0				
00:00:00.800	2	1.519.573	1.482.457	6.150.797	2.747.340	0	0	0	0	0	0	0	0				

Visualisation for PDF export

Processing step number: 8574 Ok

Seam

Weld details
 Weld date: 7/11/2018 7:28:26 AM
 Duration: 3 s
 Wire consumption (length): 0.345 m
 Wire consumption (weight): 2.11 g

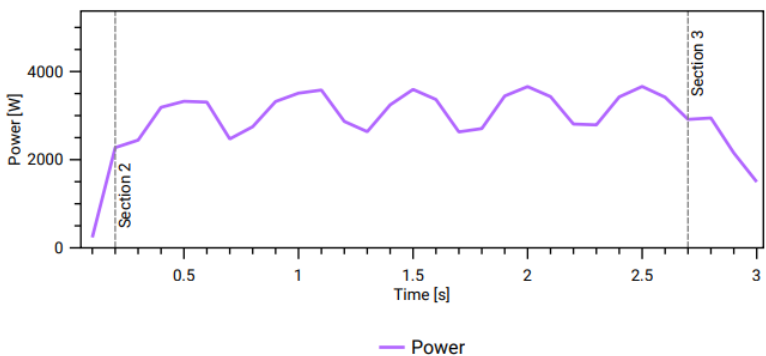
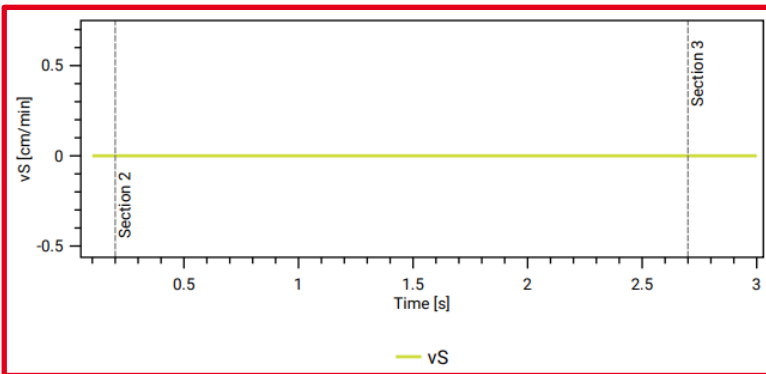
Machine

Name: TPS 500i
 Machine serial number: 28157932
 Model: TPS 500i
 Machine location: Sattledt/Mechanic/Robotcell
 IP address: 10.8.64.229

Sections

Section 1

Command values	Limit monitoring
Job number: 6	Welding current command value: 158.0 A (5 A/-5 A)
Wire consumption (length): 0.006 m	Max. duration of current deviation: 0.1 s
Wire consumption (weight): 0.04 g	Voltage command value: 16.9 V (1.0 V/-1.0 V)
Welding mode: MIG CMT	Max. duration of voltage deviation: 0.1 s
Characteristic: 3248	Wire speed command value: 7.2 m/min (1.0 m/min/-1.0 m/min)
Wire Feed Speed: 6.5 m/min	Max. duration of wire speed deviation: 0.1 s
Arclength correction: 4.0	Reaction: Warning
Pulse/dynamic correction: 0.0	
Section time: 0.2 s	
Energy: 0.280 kJ	
I: 52 A	
U: 10.3 V	
Wfs: 1.8 m/min	
Welding speed: 0.0 cm/min	



4 STATISTICS & ANALYSIS

4.1 Automatic reports via e-mail

It is now possible to send statistics reports automatically via e-mail based on a defined temporal rhythm. The following options are available:

- / **Daily** report: the report is sent daily.
- / **Weekly** report: the report is sent based on weekly data. Creation time is thus every Monday at 0:00:00.
- / **Monthly** report: the report is sent based on monthly data. Creation time is thus every 1st of the following month at 0:00:00.

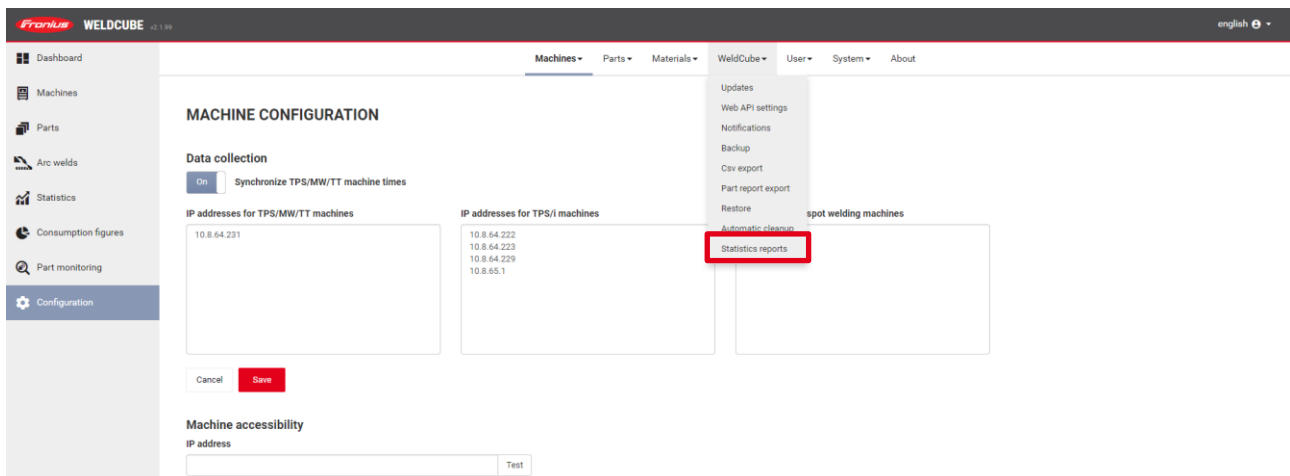
Depending on the number of defined reports it can take some time until processing of all reports is finished.

Attention:

Using this function requires recording a mail server within notification configuration (configuration settings for WeldCube).

Settings & configuration

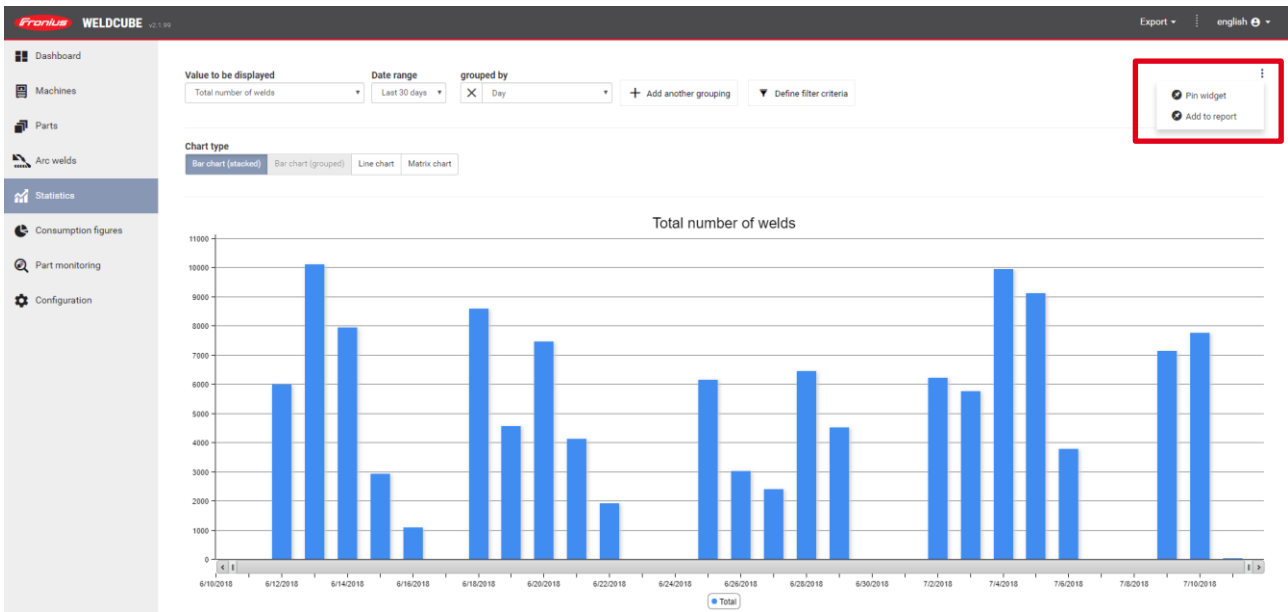
Configuration settings of WeldCube now provide a new sub-menu entry called “Statistics report” for administration of those reports:



The statistics report settings include the following definitions:

- / **Name:** addresses the report name. This name is also used for adding statistics to the report via the statistics section of WeldCube.
- / **E-mail recipients:** here you can enter the e-mail addresses of those people who shall receive the report (separation takes place using „ ; “)
- / **Interval:** the frequency for the report can be chosen based on the described options (daily, weekly, monthly).

After finishing the settings, use the statistics area of WeldCube in order to create the contents for the report. Adding the statistics to a report works like adding a dashboard widget (“Add to report”):



After choosing “Add to report” it is necessary to choose the report the statistic shall be added to. When doing so, it is also possible to enter an individual name for the statistics.

The time period chosen for the statistics applies for the report as well.

The dialog box titled 'Add statistics to report' contains the following fields:

- Report Name:** A dropdown menu currently showing 'Test'.
- Statistics Name:** A text input field containing 'Total number of welds'.
- Buttons:** 'Cancel' and 'Ok' buttons at the bottom right.

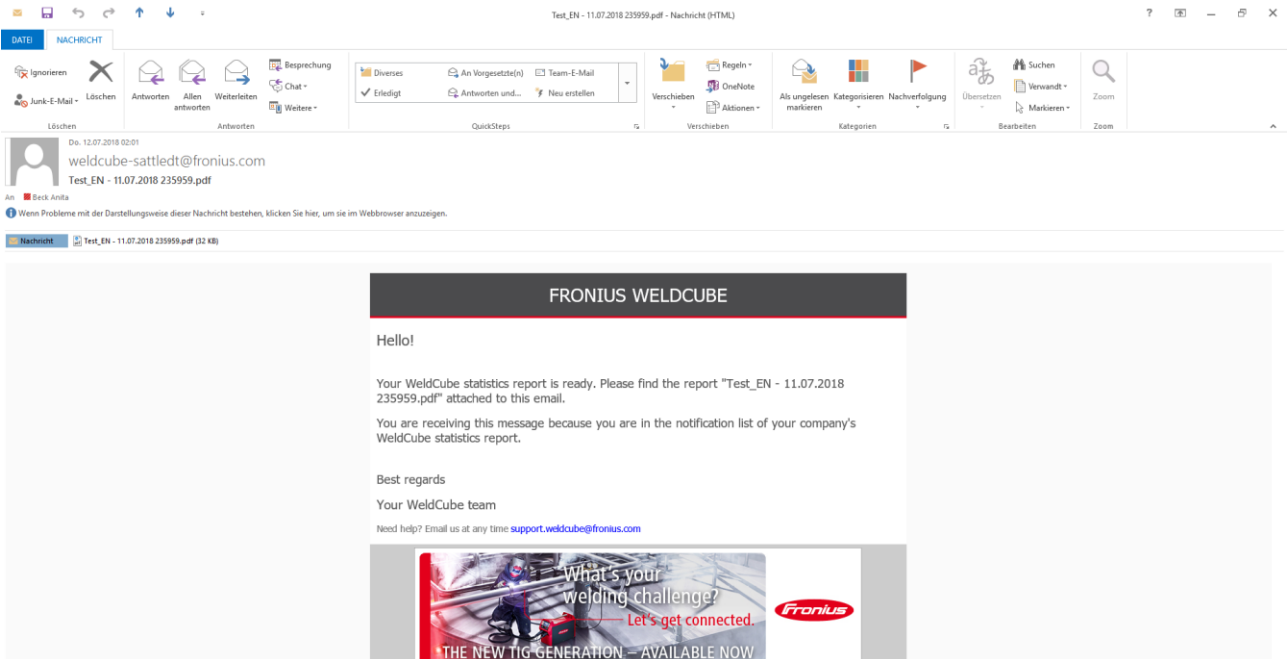
Report settings will now show all statistics added as report content. It is still possible to change the given name there or to remove statistics:

The screenshot shows the 'Configuration' settings page. It is divided into two main sections:

- COMMON:** Includes fields for Name (Test), Email recipients (beck.anita@fronius.com), Interval (Daily), Measurement system (Metric), and Language (English).
- STATISTICS:** Shows a list of added statistics. One entry is visible: 'Total number of welds' with a small icon to its left, indicating it can be interacted with.

 At the bottom, there are 'Cancel' and 'Save' buttons.

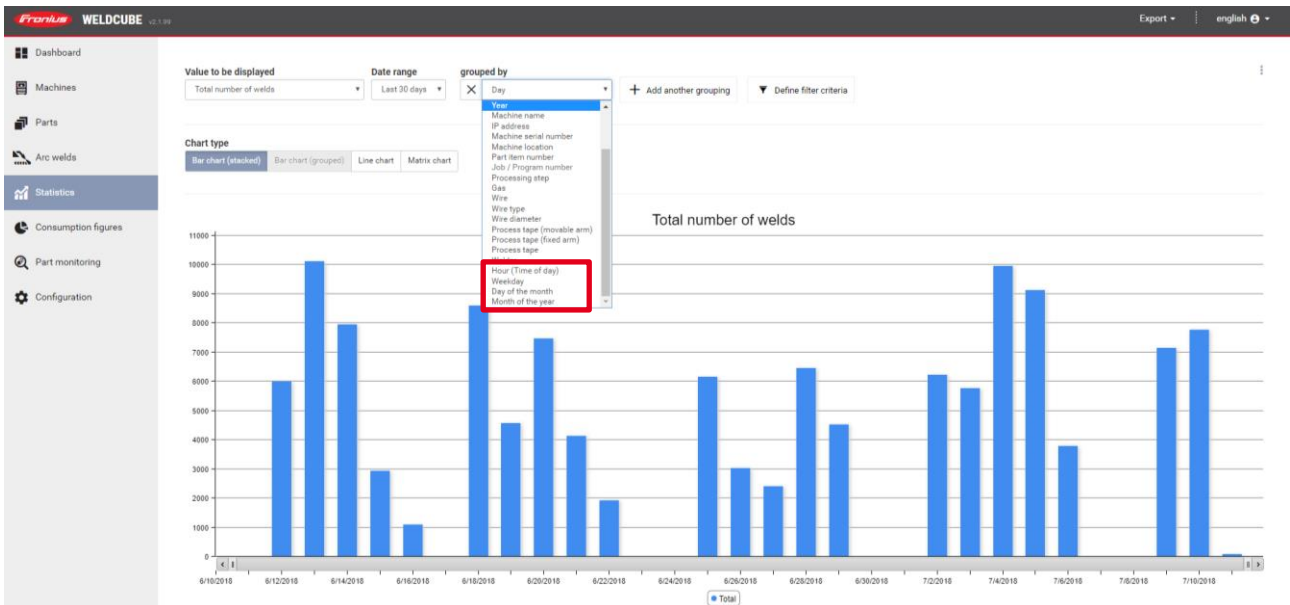
As soon as the trigger time comes, the report is automatically created and sent to the defined e-mail recipients:



4.2 New grouping options

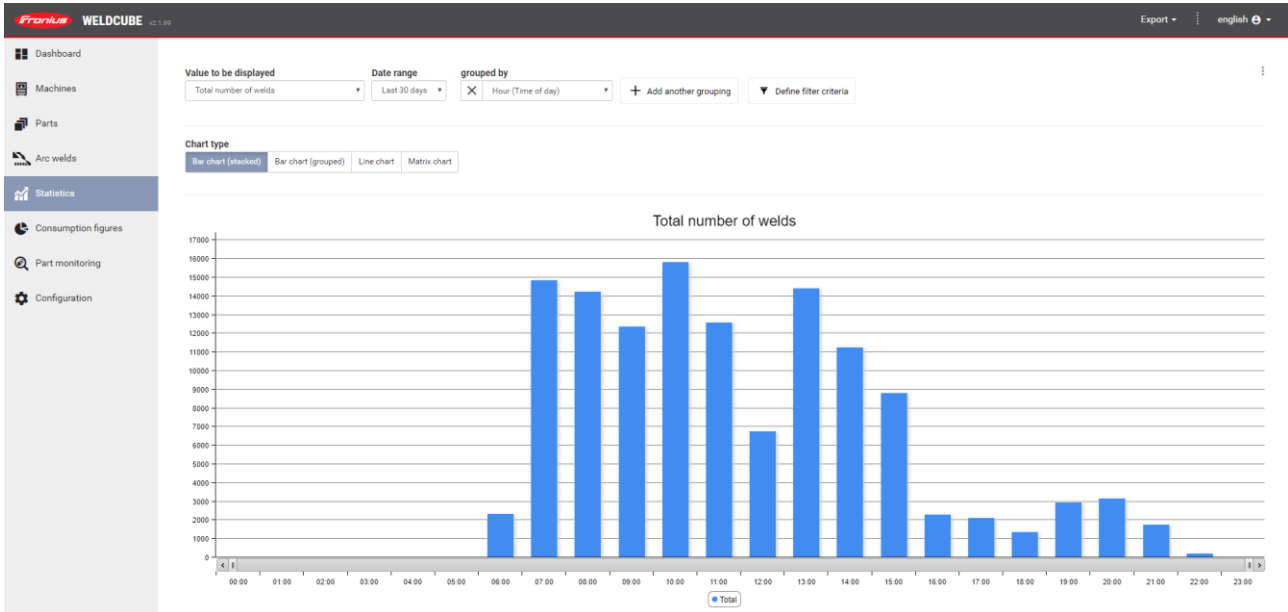
With WeldCube release 2.1, new grouping options for statistics are available:

- / Hour (time of the day)
- / Day of the week
- / Calendar day
- / Month



Grouping by hour / time of day

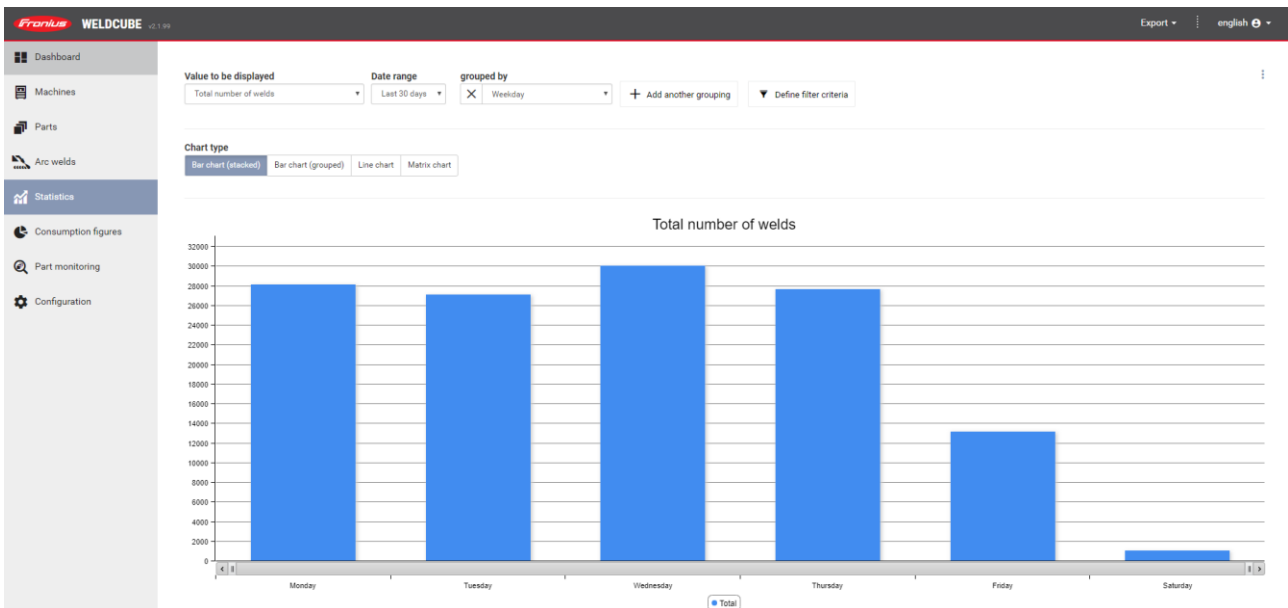
Using this grouping, the chosen data – e.g. total number of welds – will be shown as total amount per hour / time of the day for the chosen time period:



This means, that for this example, the user will receive a total amount per time of the day for the last 30 days and NOT a single bar per time of the day per day for the last 30 days.

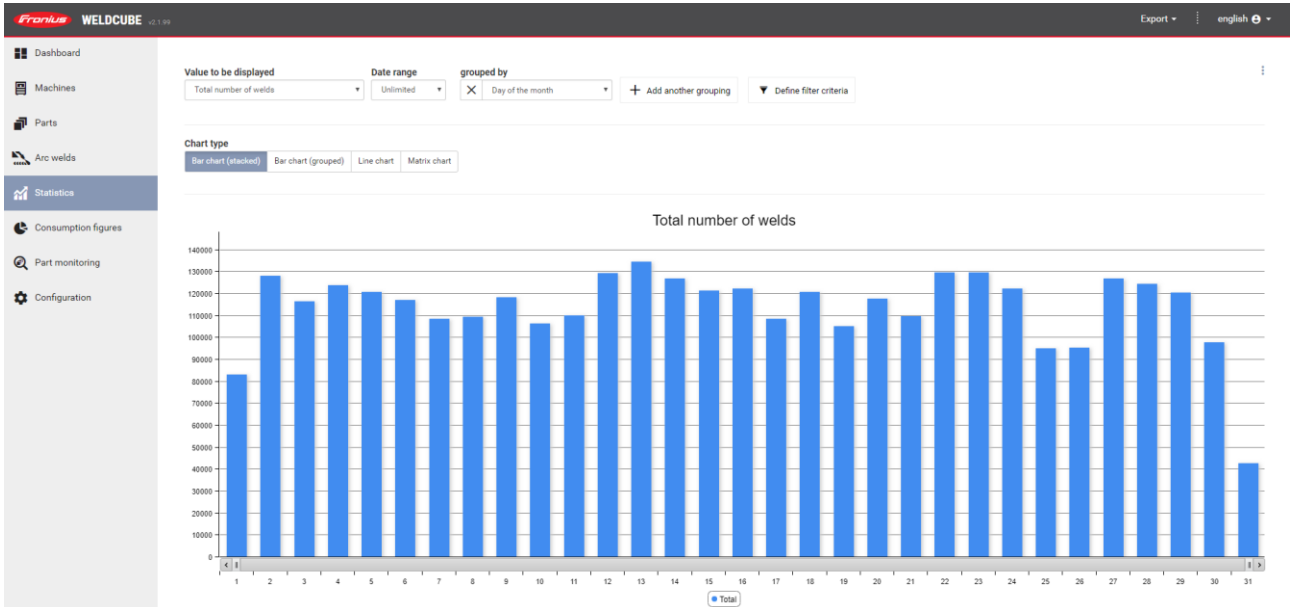
Grouping by day of the week

Using this grouping, the chosen data – e.g. total number of welds – will be shown as total amount per day of the week day for the chosen time period:



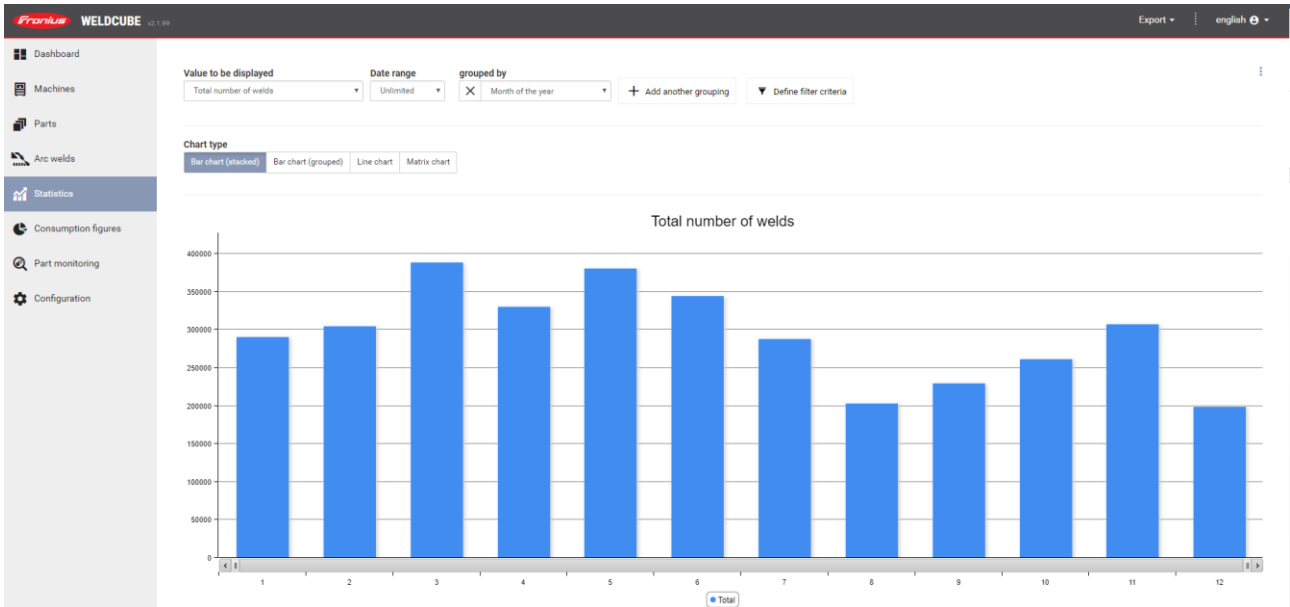
Grouping by calendar day

Using this grouping, the chosen data – e.g. total number of welds – will be shown as total amount per calendar day for the chosen time period:



Grouping by month

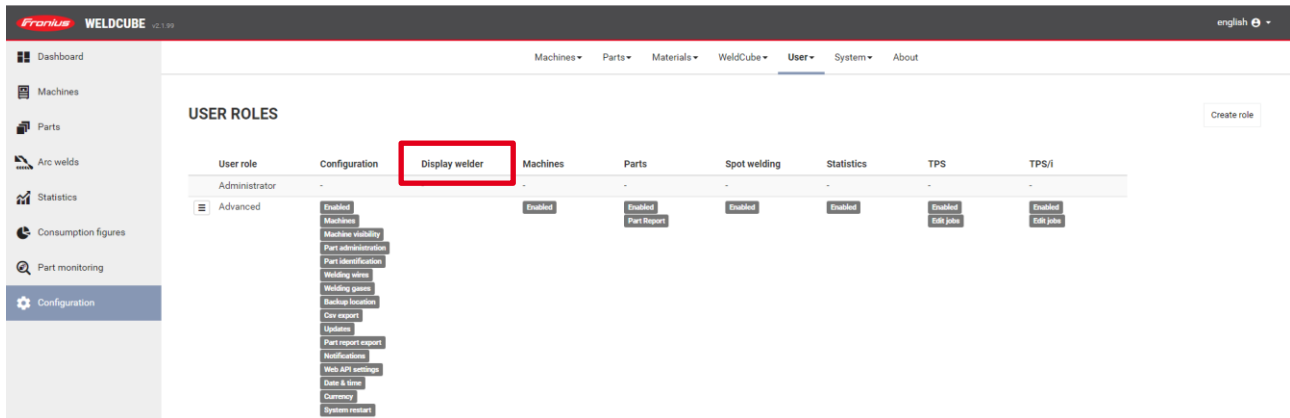
Using this grouping, the chosen data – e.g. total number of welds – will be shown as total amount per month for the chosen time period:



5 USER MANAGEMENT

5.1 Hiding the welding system's user

It might happen that a WeldCube user is not allowed to see / access personal data. In order to manage this correctly, a new permission possibility is now available for WeldCube user management:



If a user does not have the permission for personal data, this has the following effects:

- / The welder is not available for TPS/i processing steps.
- / The welder will not be shown in CSV and PDF exports.
- / Statistics cannot be grouped respectively filtered by welder.
- / The User will get a notification for part export settings, if he chooses personal data but doesn't have the authorization to do so.
- / If the part export is activated for user roles (settings for user roles) but the activation for displaying the welder is missing, there will be a notification.