Handbook capacity entry AX4

Version 3.0

Agenda

1. Important notes

Handbook capacity entry AX4
1. Important notes

1. The entry of capacity on AX4 **does not replace any obligation to inform or any subject matter of contract**

2. To be entered in the AX4 are the capacities for the DEUTZ material number(s) of **only the bottleneck machine** which is decisive for the output quantity. This ensures that the capacities correspond to the output of your machine.

3. The capacity analysis serves DEUTZ for strategic planning. **Delivery call-offs are still to be regarded as binding**.

4. Capacity recording and updating is part of the logistics evaluation KPI in the DEUTZ Supplier Cockpit. Failure to use it leads to a downgrade in the evaluation.

5. The capacity recording must be updated every 4 months. A reminder is sent automatically by AX4 via email.

6. The capacity entries are automatically translated into a traffic light logic. It can thus be seen whether capacities submitted match the schedule lines of DEUTZ.
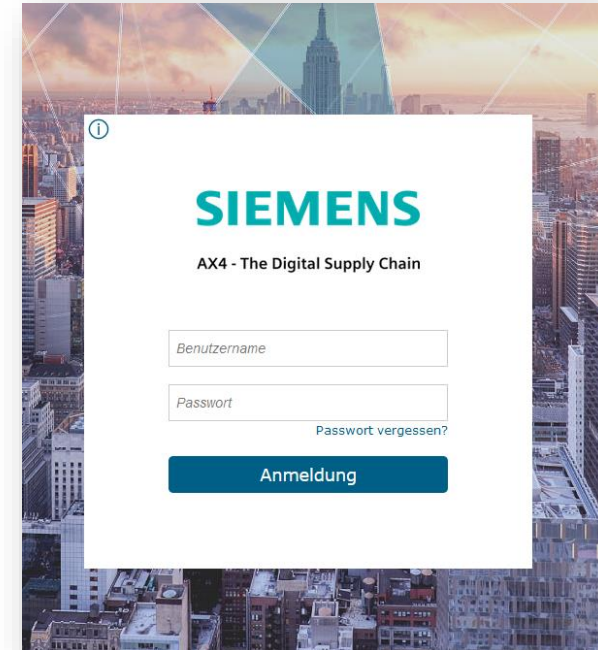
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2. Registration on AX4

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2. Registration on AX4

- **Link to log in on AX4:** https://www.ax4.com/ax4/

- Requirement:
  - ➢ UserName
  - ➢ Initial password

- Please contact bkm.de@deutz.com !

- Afterwards you will receive one or more usernames and assigned as well as an initial password in a separate mail from AX4 which is valid for max. 24 hours.

- Therefore please generate your own password within 24 hours

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2. Registration on AX4

- After successful login you will be shown which material numbers are still to be assigned to a machine:

DEUTZ ®

Dear sir and madame,

following articles are not assigned to a machine:

12345678
23456789
34567890

With kind regards - Your DCM-Team

▸ Log On

- The part numbers result form the current delivery schedules

- As soon as the part number is!

- **GOAL: No part numbers in log in window**

3. Entering Capacities on AX4

Handbook capacity entry AX4

3. Entering Capacities on AX4

- The capacity is entered by „Capacity" and „Create tooling capacity"

a) Name new machine:

- First give the machine an indivual name:

3. Entering Capacities on AX4

b) **Assign part numbers to the machine**

- Enter the DEUTZ material numbers that run over the bottleneck machine

- You can enter this part number by part number or upload several material numbers at once

- **NOTE:** The material numbers are always 8 digits and have neither letters nor special characters (e.g. 04131234)

- **ATTENTION:** A material number can only be assigned to <u>one bottleneck machine, no duplications!</u>

c) **Time periods**

- Enter a date from which the **specified capacity data is valid**!

- The number of positions is not related to the number of part numbers! The total capacity for all inserted part numbers must be entered.

- If you have **different capacities at different times** (e.g. due to process optimazation or vacation) you can specify this **in an additional item to the day**

  - A detailed example is shown on the following page

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3. Entering Capacities on AX4

- **Example:** You have plant vactions from 18/07/22 -14/07/22, during which you do not produce and deliver. For this information to be correctly transferred to our system, 3 time periods are required

1. Time period valid from 01.01.2022 until maintaining a second time period

2. Time period is valid from 18.07.2022 with capacity 0 (due plant vacation in week 29-32)

3. Time period applies from start-up 15.08.2022 with either the old capacity before plant vacation or a new one if necessary

- **NOTE:** The capacity information from the last time period is valid, theoretically, until infinity! Therefore, please make sure that when entering plant vacations or similar, you alsways also insert a time period for the period afterwards, so that your regular capacity becomes valid again

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3. Entering Capacities on AX4

d)   Capacities

- Enter here once the current and max. capacity in pcs./week

- Here only absolute and no decimal numbers

- **IMPORTANT**: The capacity is valid for the material number(s) stored in the bottleneck machine

- **IMPORTANT**: If in the last time period a capacity with „0" is deposited, it's valid from this time to infinity

e) Shifts

Item		Time period	Current capacity pcs./week (Deutz only)	Maximum capacity pcs./week (Deutz only)	Current capacity shifts/week	Maximum capacity shifts/week	Ramp up +15% (in Weeks)	Ramp up +30% (in Weeks)	☑
1	ⓘ	dd.MM.yyyy 📅							☐

Time periods

In case a part number is processed on different machines for production, please specify only the bottleneck machine.

⊕ Add Position   🗑 Remove Selected Positions

- Enter here once the current or max. number of shifts/week

- The number of max. shifts is that required to achieve the max. capacity

3. Entering Capacities on AX4

f)   **Ramp-up (15% -30 %)**

- Enter the approximate number of weeks required to increase the max. capacity by 15% or 30%

- **NOTE:** This information is considered as an indicator and is not binding

3. Entering Capacities on AX4

g) Traffic light method

- The traffic light is based on the cumulative stock over 20 weeks (52 weeks for overseas suppliers)

  - Calculation of traffic lights:

    > Demand (previous week)
    > + Capacity
    > - Call offs (current week)
    > ------------------------------------
    > = Cum. stock

- If…

  - Cum. Stock in all weeks   > 0   → Green traffic light

  - Cum. Stock in at least one week   < 0   → Red traffic light

  - Cum. Stock in at least one week   < max. capacity per week   → Yellow traffic light (warning)

3. Entering Capacities on AX4

- In case of a red traffic light (= capacity is not sufficient), the red arrows mark the weeks/months **where the cum. stock is in negative range**

- With the button "Simulation capacity match" you can check with which capacity you end up at a green traffic light and thus assure us of sufficient quantity. This means that you will get a confirmation if you are still in a bottleneck when you re-enter the capacity

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3. Entering Capacities on AX4

NEW

- By clicking on „Month" you can change the calendar overview to weeks and backwards

CW	29/22	30/22	31/22	32/22	33/22	34/22	35/22	36/22	37/22	38/22	39/22	40/22	41/22	42/22	43/22	44/22	45/22	46/22	47/22	48/22
DEUTZ Call-off	0	0	0	0	0	0	0	0	1200	0	0	0	0	0	0	1200	0	0	0	0
Capacity	200	200	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Cumulative Inventory	200	400	500	600	700	800	900	1000	-100	0	100	200	300	400	500	-600	-500	-400	-300	-200

- The traffic light calculation is made for 20 weeks, for overseas suppliers with 52 weeks

Month	07/22	08/22	09/22	10/22	11/22	12/22	01/23	02/23	03/23	04/23	05/23	06/23	07/23	08/23	09/23	10/23	11/23	12/23	01/24	02/24
DEUTZ Call-off	1200	0	1200	1200	1200	0	0	0	0	1200	1200	0	0	0	0	0	0	0	0	0
Capacity	4200	4600	4400	4200	4000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulative Inventory	3000	7600	10800	13800	16600	16600	16600	16600	16600	15400	14200	14200	14200	14200	14200	14200	14200	14200	14200	14200

h) Flexibility indicators

Query Flexibility Indicators

Do you serve with this plant / assembly line / tool other customer?:	☐
Purschase additional raw material from other company:	☑
Advanced production:	☐
Prolong shift time from x to y shifts:	☐
Weekend shift (from x to y shifts):	☐
Increase number of workers:	☐
Work with temporary staff:	☐
Produce without interuption:	☐
Re-work of critical parts:	☐
Give priority to DEUTZ AG on account to other customers:	☐
Reduction of cycle time:	☐
Increase flow-rate of raw material:	☐
Increase flow-rate of produced parts:	☐
Other points:	

- Click here to confirm the questions about flexibility

- In the last field „Other points" you can enter further important information about the bottleneck machine

  - Note: Do not use special characters (!,?,;,#,*,< oder >,=)

  - Limited to 80 characters, for detailed infromation contact bkm.de@deutz.com

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3. Entering Capacities on AX4

i) **Comment box:**

- Information for internal communication can also be stored on AX4

    - E.g. for a representative or to discuss the machine designation

- For this, use the comment function in the machine overview

Traffic Light	Order no.	Machine identification	Creation date	Modification date	State Last confirmation date			Comments Date of last comment
🟢	7334110	test121121	26.02.2015	07.06.2022 12:15	Released ⊙ 07.06.2022 12:15	📝	☐	💬 0

4. Saving and realising new machines

Handbook capacity entry AX4
4. Saving and realising new machines

- Saving the input is done at the end of the page using the button:

- **IMPORTANT:** The data will only be transferred to DEUTZ AG after the „Release Entry" button has been clicked

- **NOTE:** The update of the capacities (every 4 months) of the corresponding bottleneck machines or production lines is only done using the „Release Entry" button
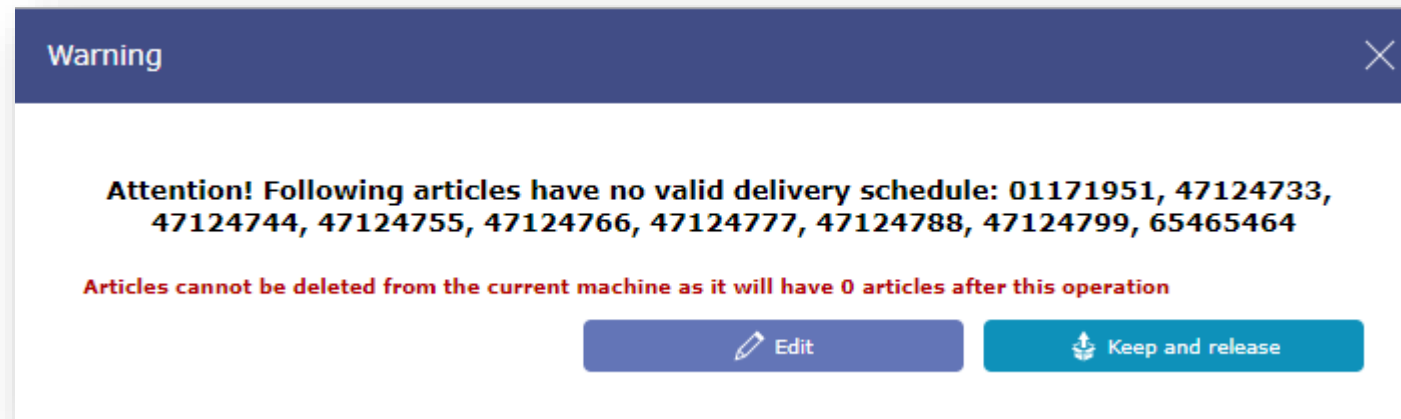
5. Error during releases of new machines

Handbook capacity entry AX4

5. Error during releases of new machines

- Possible sources of error and what to do (i)

  - There is no delivery schedule for the part number → Please „Keep and release" anyway, as delivery schedules may follow in the future

  - Example:

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5. Error during releases of new machines

- Possible sources of error and what to do (ii)

  Duplicated articles on other machines:

  - Please click on „Back to Edition"

  - **OR** remove part number *either* in the „current" machine *or* „other" machine where the part number is already assigned to
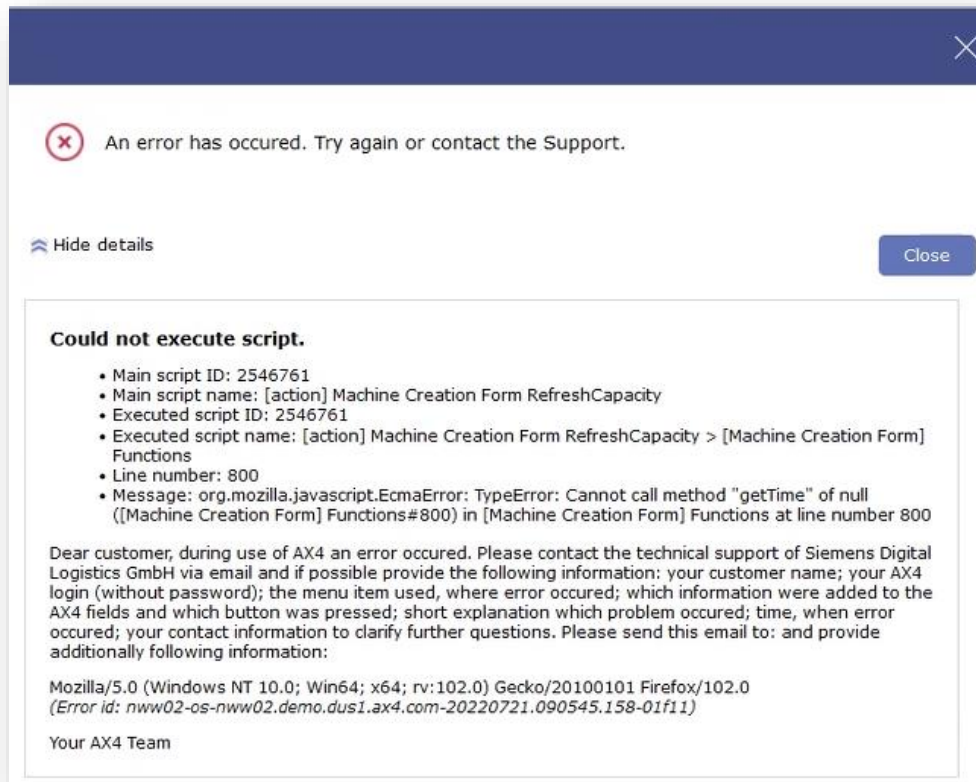
Example:

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5. Error during releases of new machines

- Possible sources of error and what to do (iii)

  - AX4 errors in general→ Please contact bkm.de@deutz.com!

  - Example:

6. Machine overview

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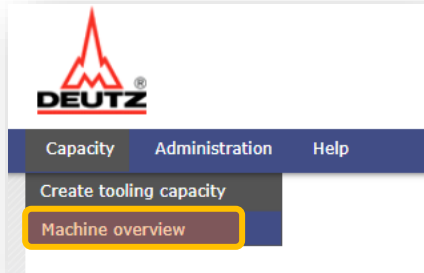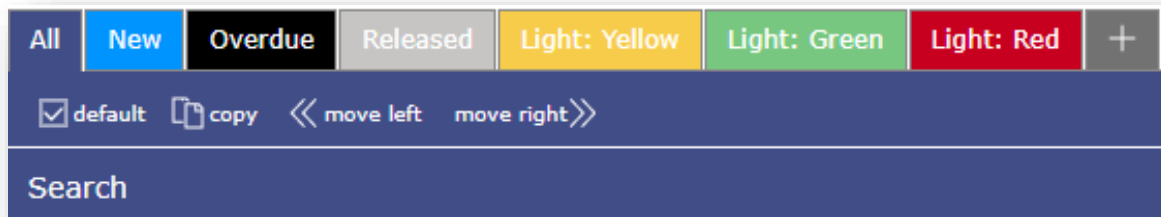
6. Machine overview

- Using the tabs „Capacity" and „Machine overview" to see your created and released machines

- The overview can be filtered by criteria such as „New", „Overdue" or by the traffic lights

- By clicking „default" on the selected tab, you can set it as the default view

- Click „<<move left / move right>>" to move and arrange the corresponding tabs as you prefer

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6. Machine overview

- The automatically generated traffic lights are shown on the left for each machine

Traffic Light	Order no.	Machine identification	Creation date	Modification date	State Last confirmation date			Comments Date of last comment
🟢	63479192	Test2022	03.01.2022	03.01.2022 10:10	Update needed ⚫ 03.01.2022 10:10	✏	☐	0
🔴	66367251	Filip's machine	06.04.2022	05.07.2022 15:28	Released ◉ 05.07.2022 15:28	✏	☐	0
🟡	66891823	Filip Machine 2	26.04.2022	26.04.2022 15:49	New 🔵	✏	☐	0

- The status of the machine is shown with round icons in black (update required), white (released) and blue (new)

- **Update needed**: The machine or capacity is current (after 4 months) → **Edit** ✏

- **Released**: The machine or capacity is up to date (4 months)

- **New**: The machine is created and saved BUT not yet released → **Edit** ✏

7. Delete a machine

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7. Delete a machine

- In machine overview, place a check mark next to the corresponding machine

Traffic Light	Order no.	Machine identification	Creation date	Modification date	State Last confirmation date			Comments Date of last comment
🟢	63250001	T2	20.12.2021	14.07.2022 08:11	Released ⊙ 14.07.2022 08:11	📝	☑	💬 0
🟢	63479192	Test2022	03.01.2022	03.01.2022 10:10	Update needed ⚫ 03.01.2022 10:10	📝	☐	💬 0

- Then scroll down and click on **Delete selected machines**

- **NOTE:** The machine cannot be reactivated afterwards – in case of accidental deletion, it must be created again

8. Updating capacities part 1 — manual-

8. Updating capacities part 1 – manual-

- In machine overview, click on ![edit icon] to edit and release the machine or the capacity information, if necessary

Traffic Light	Order no.	Machine identification	Creation date	Modification date	State Last confirmation date			Comments Date of last comment
🟢	63250001	T2	20.12.2021	14.07.2022 08:11	Released ◉ 14.07.2022 08:11	✎	✓	0
🟢	63479192	Test2022	03.01.2022	03.01.2022 10:10	Update needed ● 03.01.2022 10:10	✎	☐	0

8. Updating capacities part 1 – manual-

- Part number(s), capacity and time period(s) can be changed

- In the lower part you can see the same table as before when creating it

  - Therefore, the same procedure:

  - Determine the suitable capacity with the button "Simulation capacity match" until the traffic light is green

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8. Updating capacities part 1 – manual-

- After editing on:

→ Next Step

- Here the flexibility key figures can be adjusted again:

Query Flexibility Indicators

Do you serve with this plant / assembly line / tool other customer?:	☐
Purschase additional raw material from other company:	☑
Advanced production:	☐
Prolong shift time from x to y shifts:	☐
Weekend shift (from x to y shifts):	☐
Increase number of workers:	☐
Work with temporary staff:	☐
Produce without interuption:	☐
Re-work of critical parts:	☐
Give priority to DEUTZ AG on account to other customers:	☐
Reduction of cycle time:	☐
Increase flow-rate of raw material:	☐
Increase flow-rate of produced parts:	☐
Other points:	[_____] ⓘ

- Then on: ▶ Confirm Entry

- Final step on: ⬆ Release Entry

- **IMPORTANT:** The information will only be transferred to DEUTZ AG after the release button has been pressed
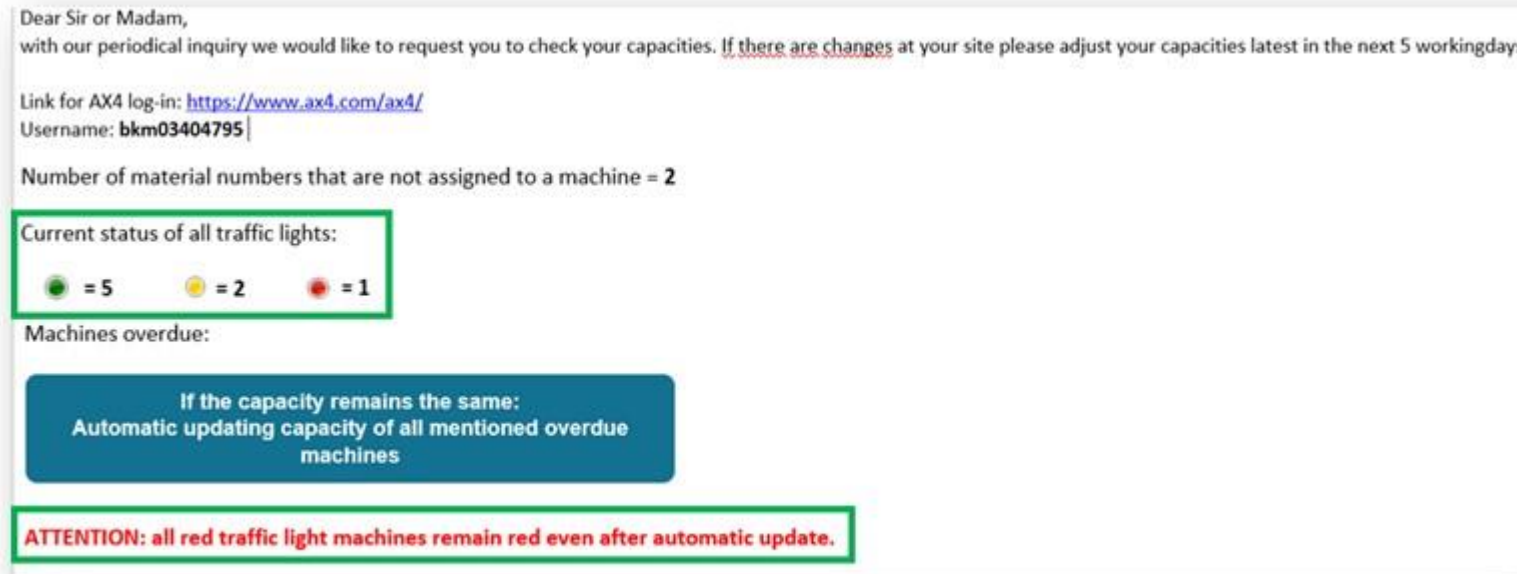
9. Updating capacities part 2 — by remidner-

9. Updating capacities part 2 – by reminder-

- After 4 months a reminder will be sent via noreply@ax4.com to the deposited mail adress

- The capacities of all machines can be updated automatically with the blue button (see screenshot). So there is no need to manually log in to AX4 and release the machines using the edit button

Dear Sir or Madam,
with our periodical inquiry we would like to request you to check your capacities. If there are changes at your site please adjust your capacities latest in the next 5 workingdays.

Link for AX4 log-in: https://www.ax4.com/ax4/
Username: **bkm03404795**

Number of material numbers that are not assigned to a machine = **2**

Current status of all traffic lights:

● = 5   ● = 2   ● = 1

Machines overdue:

**If the capacity remains the same:
Automatic updating capacity of all mentioned overdue machines**

ATTENTION: all red traffic light machines remain red even after automatic update.

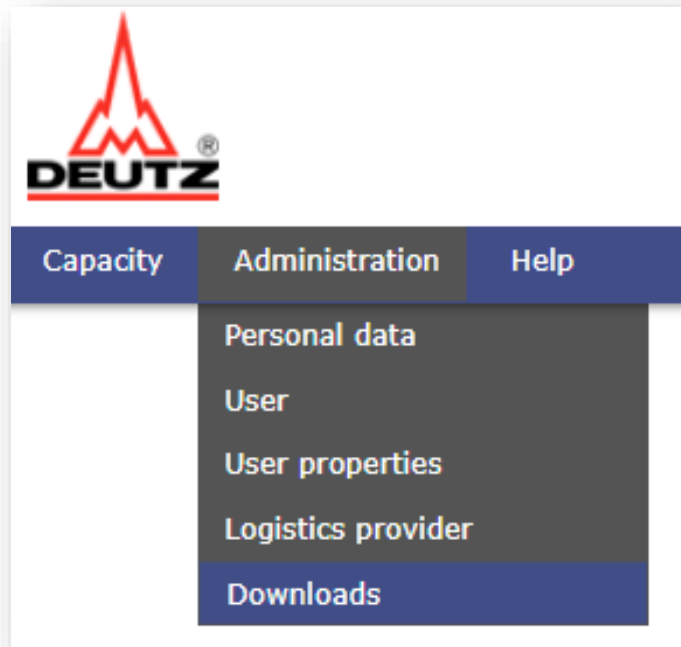- **NOTE:** For red lights in your machines, please perform step 6 part 1

10. Other

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10. Other - Download Handbook

- The handbooks are available in German as well as in English in the „Downloads" section and can also be downloaded anytime

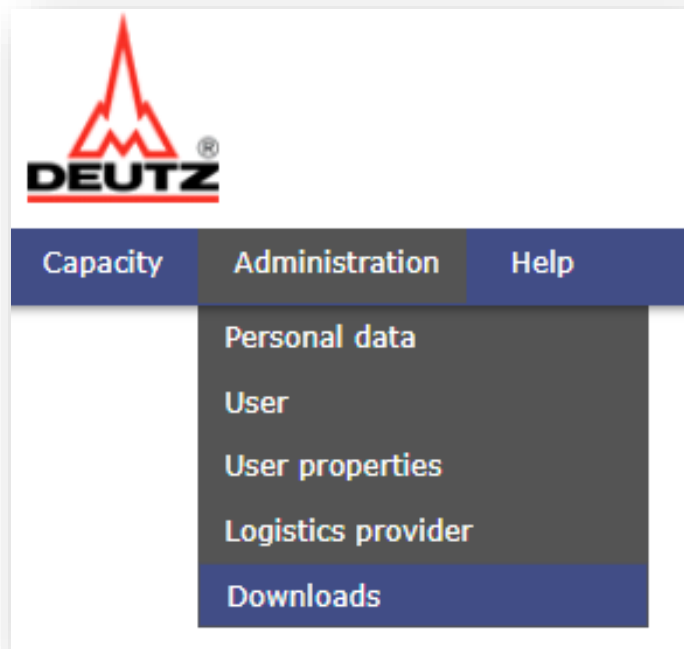Version 3.0 valid from July 2022   Questions? bkm.de@deutz.com   © DEUTZ AG

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10. Other – New user

- In the area „Manage users" further colleagues can also be deposited and managed on AX4 for capacity recording

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10. Other - Single Sign On (SSO)

▪ For a Single Sign On to switch between label/delivery schedule and capacity, please contact bkm.de@deutz.com

10. Other - Questions

- Do you have questions?

Then please contact:

bkm.de@deutz.com