TECNIPLAST

DVC®
Release Note
6.5.0

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1. RELEASED FEATURES

This DVC® release 6.5.0 includes several features, enhancements, and bug fixings.
Some new features have been developed considering new devices officially released in production, such as the DVC®MASTEREVO and the new ELECTRONIC TOP HOLDER.
Moreover, this new release includes several improvements in integrating the Animal Management Systems.

2. NEW FEATURES

2.1 FEATURE #1 RESEARCH FIELD AND OWNER AUTO CREATION

The research protocol and cage owner can now be added directly from the DVC® Operator interface without creating these items in the DVC® Workplace in advance.
We implemented the same functionality already existing in the Strain field. Namely, autocomplete suggestions are provided when entering a value if there is already a field with the same value in the database. If you want to add a new value, enter it fully and press ENTER to save it.

2.2 FEATURE #2 AMS POP-UP ERRORS / WARNINGS

In this new version, for the DVC® users with an AMS integration in place, we have included new pop-up messages to inform users of the result of the operation.

STATUS	DVC® Operator message
OK	AMS_SUCCESS "AMS cage creation successful
AMS_INFO NOT COHERENT	AMS data error
CAGE ID NOT EXISTS IN AMS	AMS warning: cage data do not present in the AMS
MOUSE ID NOT EXISTS IN AMS	AMS warning: animal data do not present in the AMS
AMS IS NOT COMUNICATING	AMS ERROR: unreachable
AMS NOT CONFIGURED	AMS configuration error

2.3 FEATURE #3 DELAY FOOD ALARM BASED ON THE NUMBER OF MICE

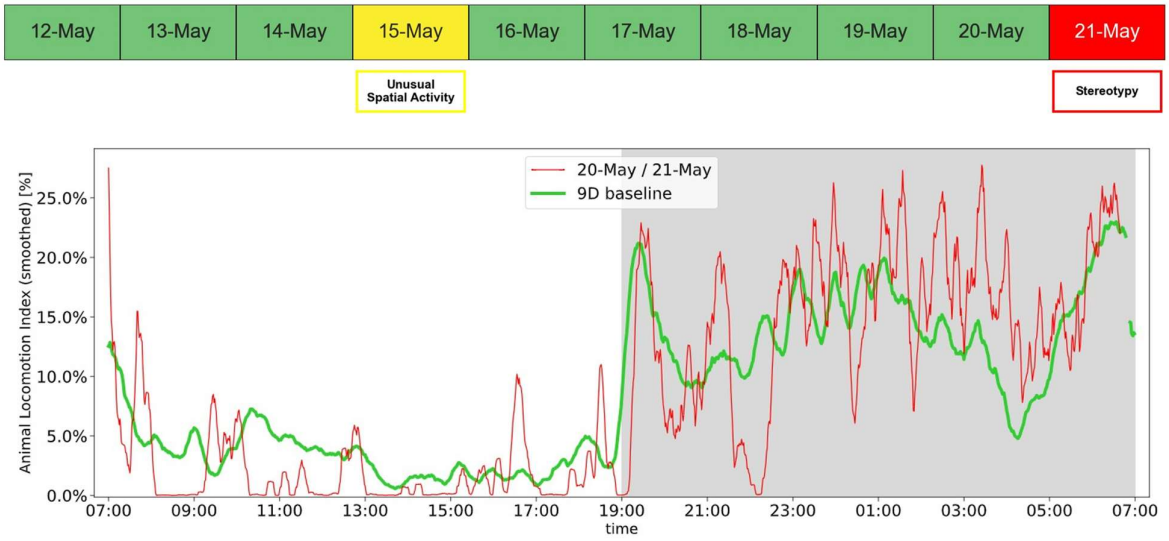
The low food alarm can be delayed based on the number of animals and cage type. If enabled and set by DVC Service team, when the system detects a low food level, it will not immediately notify the alarm but instead wait until the delay is reached. Each group of animals can have a different delay.

2.4 FEATURE #4 24 HOURS DELAYED FOOD ALARM BASED ON INSERTION

For some specific situations, for instance, running an experiment with mice requiring low food quantity would generate a Food Alarm at cage insertion by default. In this release, it is now possible to enable by our DVC Service team, a 24-hour delay of the Low Food Alarm at cage insertion by cage type (experiment, stock, breeding) avoiding unnecessary alarms due to the known situation.

2.5 FEATURE #5 STEREOTYPIC BEHAVIOUR – A NEW WELFARE CHECK EVALUATION

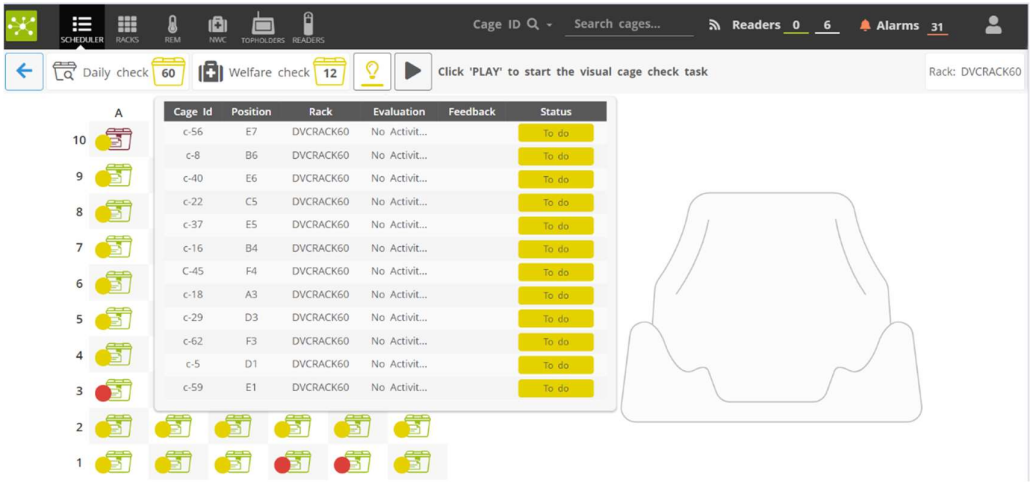
This new DVC® Welfare Check evaluation exclusively refers to patterns of repetitive activity occurring over the bedding as "Stereotypy." This included behaviours such as route-tracing and circling but excluded actions like jumping or persistent climbing activities.



3. ENHANCEMENTS

3.1 ENHANCEMENT #1 NWC TASK TABLE WITH RACK NAME

During the Daily + Welfare check task execution, the Rack Name instead of the Rack Serial is now visible in the Task Table.



3.2 ENHANCEMENT #2 IMPROVED END DAY E-MAIL TASK

From this version 6.5, the End of the Day email distinguishes between incomplete tasks (Not Done) and rejected tasks.

3.3 ENHANCEMENT #3 - SPECIAL CHARACTERS MANAGED IN THE UI.

In version 6.5, special characters can be used to register the protocol name or owner on the DVC® Operator interface.

3.4 ENHANCEMENT #4 EXECUTION TABLE FOR MULTIPLE TASKS WITH RACK NAME.

In this new version 6.5, the rack name is now displayed in all the fields where the rack serial was previously displayed, providing users with clearer information to identify the correct rack.

3.5 ENHANCEMENT #5 JAVA VULNERABILITIES

Some minor Java vulnerabilities present in the previous versions have been addressed.

3.6 ENHANCEMENT #6 SPLIT AND WEANING ANIMAL SELECTION.

The area to select the animal to be weaned or split has been enlarged. It will facilitate the task of splitting or weaning the technicians.

3.7 ENHANCEMENT #7 THE RESEARCHER GROUP IS NOT MORE PRESENT IN THE CUSTOM CHANGING PROTOCOL.

The researcher group has been removed from the Add New Custom Changing Protocol menu.

3.8 ENHANCEMENT #8 REMOVE REJECTED BUTTON FOR WC TASK ON THE OPERATOR INTERFACE

In version 6.5, the button to reject a Welfare Check task has been removed.
It was counterintuitive to have a button to reject the WC task—the button was only enabled during cage extraction. The task is already done if the cage is extracted to check it.

4. BUG FIXES

This section refers to "user-visible" application bugs that have been fixed by the current release. Some potential bugs that affect the overall infrastructure are not reported here because they are "invisible" to the final user unless they are critical bugs affecting the overall workflow.

4.1 BUG FIX # 1 RACK IN USE BY OPERATOR.

In the DVC® system, tasks running at the DVC Rack level can be performed by only one operator at a time.
If the DVC® Rack was selected to perform a task but the tasks have not been completed in full, by pressing the "back" button, the status of the DVC Rack remained in a wrong status ("Rack in use by other operator").
It was a bug since this rack should be available for others. The bug has been fixed.

4.2 BUG FIX # 2 TOPHOLDER EVO – NOT AUTHORIZED

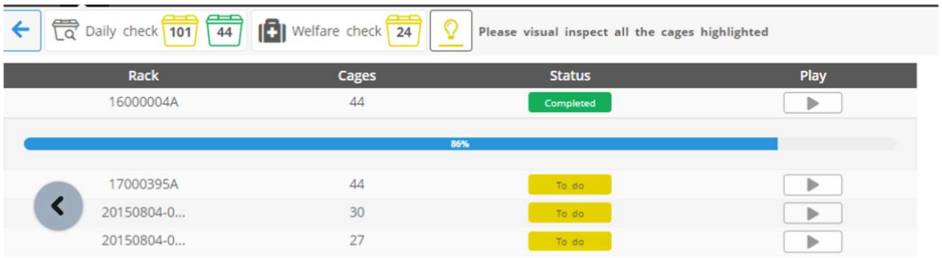
Whenever the Electronic Top Holder underwent a power off—power on cycle, the DVC® Operator interface required a new authorisation to use it. In this new version, 6.5, this authorisation is no longer necessary, and the Electronic Top Holder will be immediately available for users.

4.3 BUG FIX # 3 - IMPROVEMENT PROCESS TO REGISTER A NEW RACK ON THE DVC®WORKPLACE.

In the previous version, when a new DVC® rack was added on the DVC® Workplace interface, it created an error that prevented the user from login in again in the DVC® workplace. Now, this bug has been fixed.

4.4 BUG FIX # 4 PROGRESS DAILY CHECK BAR BLOCKED.

During the daily check with multiple racks, the progress bar is blocked if a web page change occurs. This bug has now been fixed.



4.5 BUG FIX # 5 REGISTRATION DATE NOT PRESENT ON THE DVC®.

During some specific workflows, the Registration Date was not properly saved on the DVC® database, impacting the DVC® Analytics metadata. This bug has been fixed in this new version 6.5.

4.6 BUG FIX # 6 CAGE FIELDS LONGER THAN 15 CHARACTERS.

If some fields on the card label, such as strain, Research Protocol, and Owner, were longer than 15 characters, the code generated an ERROR, and the cage information was not properly registered in the DVC® Workplace. This bug has been fixed in version 6.5.

4.7 BUG FIX # 7 CAGE NAME IN THE FLOODING EMAIL NOTIFICATION.

Due to a regression in the previous version, the email notification for Flooding Cage did not include the cage's name. This bug has been fixed in version 6.5.

4.8 BUG FIX # 8 WRONG MISSING CAGE POSITION LETTERS INCOHERENT.

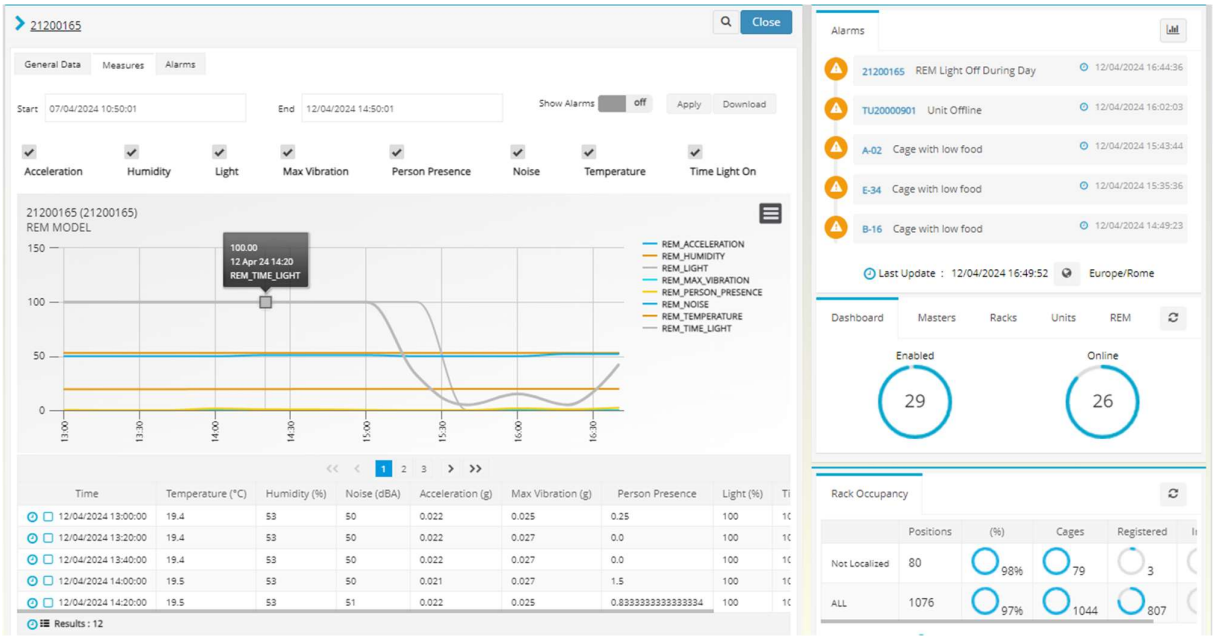
For some alarms, such as “Missing Cage” or “Cage in the wrong position” in the section “last cage position” for rack side B, the coordinates indicate letters from Q to Z. These letters don’t exist in the double-side rack coordinates. This bug has been fixed in version 6.5.

4.9 BUG FIX #9 ERROR WITH CAGE EXPERIMENT AND DEFAULT PROTOCOL

If the owner, the experiment ID, or the experiment group were added without filling in the research protocol during the registration of a cage with the running wheel, an error occurred when trying to save the cage. This bug has been fixed in version 6.5.

4.10 BUG FIX #10 REM ACCELERATION ON THE WORKPLACE.

The value displayed for the REM acceleration in the Workplace was not coherent. Always 0,00001. This bug has been fixed in version 6.5.



4.11 BUG FIX #11 DEFAULT DEAD REASON.

The default dead reason was absent in the Database after a new installation.
Any cage cannot be Terminated from the DVC® Master interface. This bug has been fixed in version 6.5.

4.12 BUG FIX #11 FLOODING ALARM NOT SENT TO CAGE OWNER

Researchers do not receive the alarm email for their cages when there is a flooding alarm. This bug has been fixed in version 6.5.

5. KNOWN OPEN BUGS

5.1 KNOWN BUG #1 EXPERIMENT ID ALREADY EXISTING

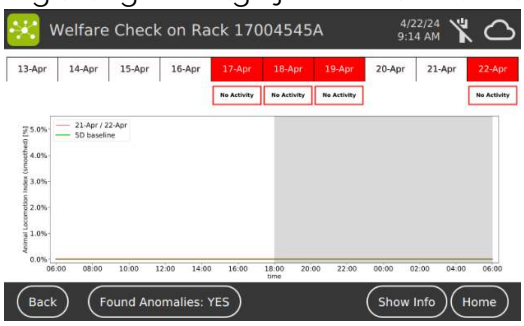
If an experiment ID already exists and is associated with a specific Study protocol, using it on a different Study protocol becomes impossible. If the user tries to do so, it generates an internal error that is not visible to the user, and the experiment ID is not saved in the cage.

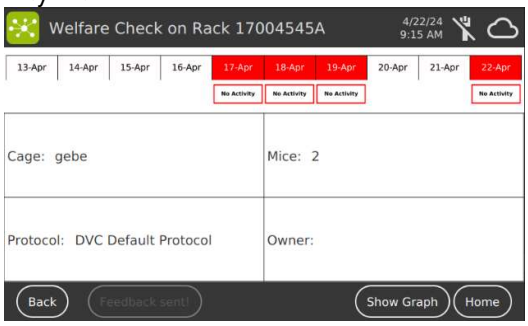
DVC® MASTER INTERFACE RELEASE NOTE

6. RELEASED FEATURES

6.1 FEATURE # 1 NIGHT WELFARE CHECK TASK HAS A NEW USER INTERFACE AND GRAPH.

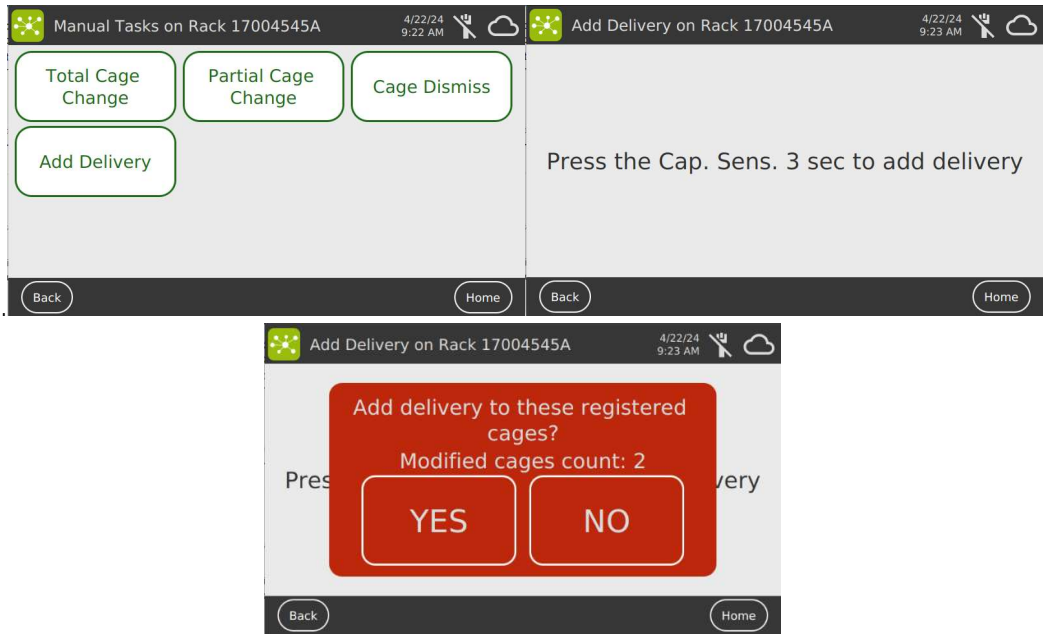
In version 6.5, the task NWC performed from the DVC Master Interface includes the Welfare Chart directly available on the touchscreen.
In this way, the information provided by the DVC Master Interface to the user is much completed.
By clicking the buttons “Show Graph” and “Show Info,” different information regarding the cage just extracted is displayed.





6.2 FEATURE #2 MANUAL TASK: ADD DELIVERY

From this version 6.5, it is possible to manually add the Delivery in any breeding Cage directly from the DVC Master Interface.
When the user needs to manually add a delivery, it is possible to select it using the manual task section. All the breeding cages will be illuminated, and simply by keeping the capacitive button of the DVC board pressed for 3 seconds, the corresponding cage will turn the LED to green and add the delivery to the cage label. Before proceeding, the user must confirm on the DVC Master interface.



NOTE: For those cages connected to the AMS, the delivery is NOT automatically created, and it must be added in the AMS interface as usual

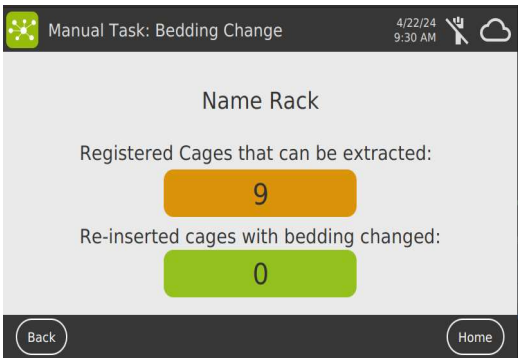
6.3 FEATURE #3 RELEASE TASK TIMEOUT IS NOW CONFIGURABLE (BY DEFAULT 90 MINUTES)

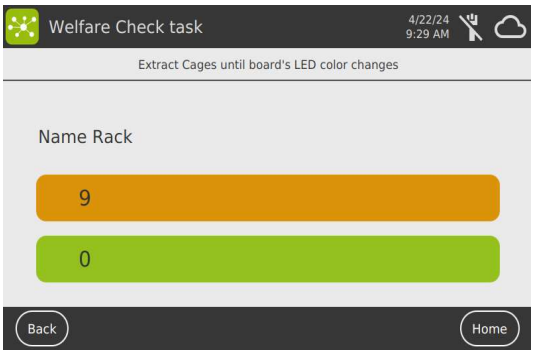
The desired timeout for tasks performed from the DVC Master Interface becomes configurable. Configuration can be applied by the Digilab Service Team. By default, it is 90 minutes.

7. ENHANCEMENTS

7.1 ENHANCEMENT 1# RACK NAME INSTEAD OF RACK SERIAL IN ANY SCREEN DISPLAYED.

From this version 6.5, to identify the DVC® Rack on the display, the Rack Name will be shown instead of the Rack Serial.





7.2 ENHANCEMENT # 2 DVC® MASTER INTERFACE CONNECTION BECOMES MORE RELIABLE.

In version 6.5, the process for reconnecting to the DVC® server after a shutdown or a network disconnection of the DVC® Master has been improved.

8. BUG FIXING

8.1 BUG FIX # 1 LED POSITION OFF WHEN PRESSING BACK.

When pressing "Back" from the alarm screen, any turned-on LED positions will be turned off. In the previous version, some of LED'S stay still ON even if DVC® Master was back in the Home Page.

8.2 BUG FIX # 2 LED ON FOR RACK SIDE B

It should be possible to toggle LED positions for DVC double-sided green racks (B front).

8.3 BUG FIX # 3 CLOUD ICON (SERVER CONNECTION STATUS)

The cloud icon (Server connection status) is now more reliable even with a slow internet connection.

8.4 BUG FIX # 4 LONG RACK NAMES

Long rack names no longer move off-screen in the Bedding Change and Welfare Check task.

9. KNOWN OPEN BUGS

9.1 KNOWN BUG #1 REMOVED CAGES WITH TASKS ARE NOT MANAGED WELL

If a cage with an assigned task is removed from the DVC Rack before completing it, the remaining tasks of the same type can be performed. However, even if this cage no longer appears in the task type group visualization, the entire task group cannot be marked as complete because it remains partially unfinished.

9.2 KNOWN BUG #2 DVCISO OLD STYLE ONLY – NO LED, NO DVC MASTER MANUAL TASKS

For the DVCISO without LEDs (old style), it is not possible to run the manual tasks from the DVC Master interface because the LEDs cannot be activated. The only way is to perform them from the DVC Operator interface. However, the scheduled tasks remain available from the DVC Master interface.

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