TECNIPLAST
innovation through passion

SOLUTIONS FOR SMART CAGES

DIGILAB

DATA COLLECTION AND EQUIPMENT CONNECTION: DIGILAB SET OF SOLUTIONS OFFERS A FUTURISTIC DIGITAL INFRASTRUCTURE BASED ON AN INNOVATIVE "DATA FUSION" PERSPECTIVE

TECNIPLAST IS THE IDEAL PARTNER FOR THE CARE OF YOUR FACILITY AND FOR THE OPTIMIZATION OF YOUR DAILY ACTIVITIES.

NOWADAYS, WHEN EVERYTHING IS LITERALLY AT FINGERTIPS, OUR DIGILAB PORTFOLIO BRINGS THE MOST INNOVATIVE SOLUTIONS FOR YOUR VIVARIUM IN TERMS OF DATA MANAGEMENT AND OPERATOR INTERACTION SYSTEMS, MAKING YOUR IVC CAGES SMART LIKE NEVER BEFORE. DIGILAB PORTFOLIO IS NOT MERELY A SET OF PRODUCTS, BUT A PROPER INFRASTUCTURE ABLE TO COLLECT AND ANALYZE THE DIGITAL INFORMATION OF ALL YOUR TECNIPLAST/IWT EQUIPMENT.

DVC™ AND GATEWAY HAVE BEEN DEVELOPED BY OUR IN-HOUSE TEAM OF DESIGNERS AND ENGINEERS TO IMPROVE THE QUALITY AND THE MANAGEMENT OF YOUR DAILY WORKFLOW, REDUCING THE POSSIBILITY OF ERRORS, OPTIMIZING EFFICIENCY AND MAXIMIZING SAFETY.

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DVC™
DIGITAL VENTILATED CAGE

BY USING DIGITAL TECHNOLOGY, DVC™ BRINGS STANDARDIZATION FOR THE IMPROVEMENT OF ANIMAL WELFARE, FACILITY OPERATIONS, AND RESEARCH.

DVC™ has SEVEN MODULES which continuously capture and record data about conditions, events, and activity inside the cage without disturbing or affecting the animals.

An external capacitive sensor plate detects activity, captures the data and sends it to a central server where the DVC™ application is running.

Bedding

- Reduce animal handling
- Avoid unnecessary washing and autoclaving
- Reduce bedding and labor costs

The Bedding Condition module detects changes in moisture within the bedding.

This is a fully customized module; therefore, a "learning phase" is required after the system installation to define the parameters for what is considered a 'dirty' by the facility's standards.

Food & Water

- Save time
- Reduce the cost of supplies
- Minimize the risk of human errors.

An infra-red system is embedded in the runners to detect food and water levels. The sensors will also detect when a bottle is missing or misplaced. In either case, an alarm will go off to alert the staff and a LED light in the cage's runner will turn-on and identify the cage position.

Animal Activity

- Automatically monitor animal activity without disturbing the animals

The DVC™ monitors the animal activity inside the cage. By means of a sensor plate the system's software captures data and compares it to different days and similar cages.
The Animal Activity module doesn't replace the Guide's recommendations for daily checks but greatly assist in doing so between daily observations, which could contribute to the enhancement of animal welfare.

Leak Detection

- Avoid losing animals due to AWS leakage or flood
- Reduce the risk of hypothermia

DVC™ detects water leakage inside the cage as little as 100 to 150 ml.

When a leakage/flood occurs, DVC™ will send an alarm to the operators for immediate action to save the animals.

This module is also available as a stand-alone for the standard IVC racks: DGM and 2GM.

Planner

- Improve your facility's daily workflow, task assignment, and utilization of resources

The DVC™ Facility Planner module can assign the cage changing task to staff members based on their schedule and skill level.

DVC™ can also identify priorities due to an emergency or breakdown and allocate workload based on health and barrier restrictions.

Identification

- Easily identify cages that need especial attention or follow-up

Sensors located on the DVC™ runners activate a LED light to identify the cage or cages in need of care or further observation.

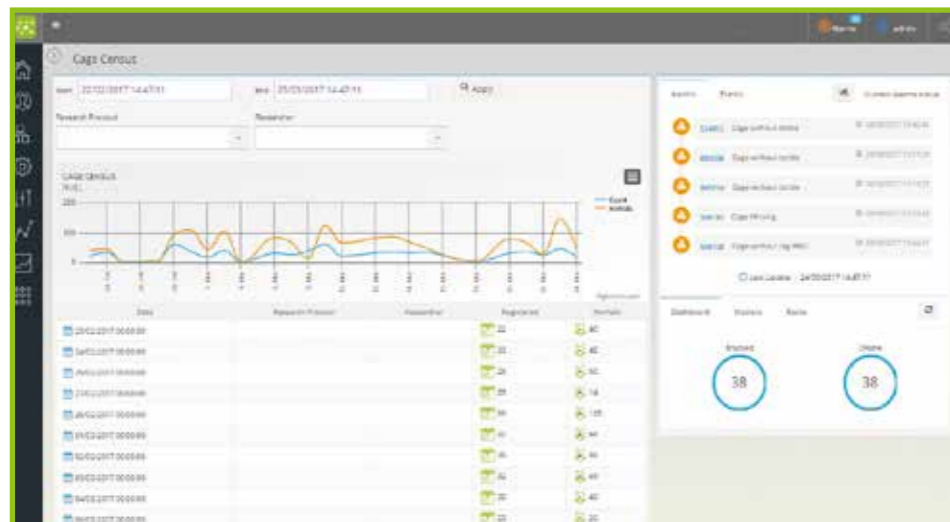This feature helps researchers and personnel find a specific cage easily.

Inventory

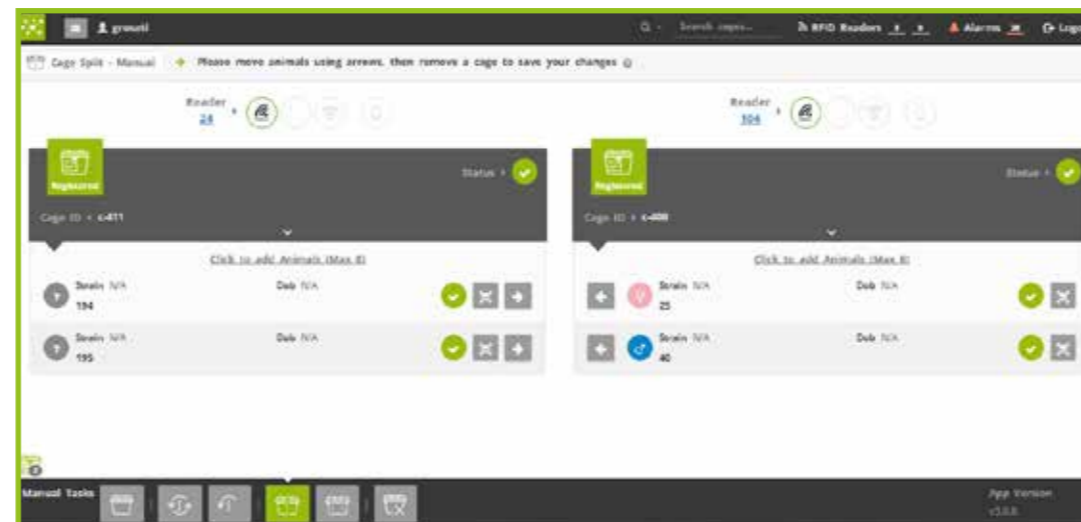- Detect cage occupancy and locate cages rapidly and in real-time

DVC™ can perform cage census in real-time and locate every cage in the facility.

This module can be integrated with the facility's management software for cage management, billing and invoicing.

Cage Census is also available as a stand-alone module for the standard IVC racks: DGM and 2GM.
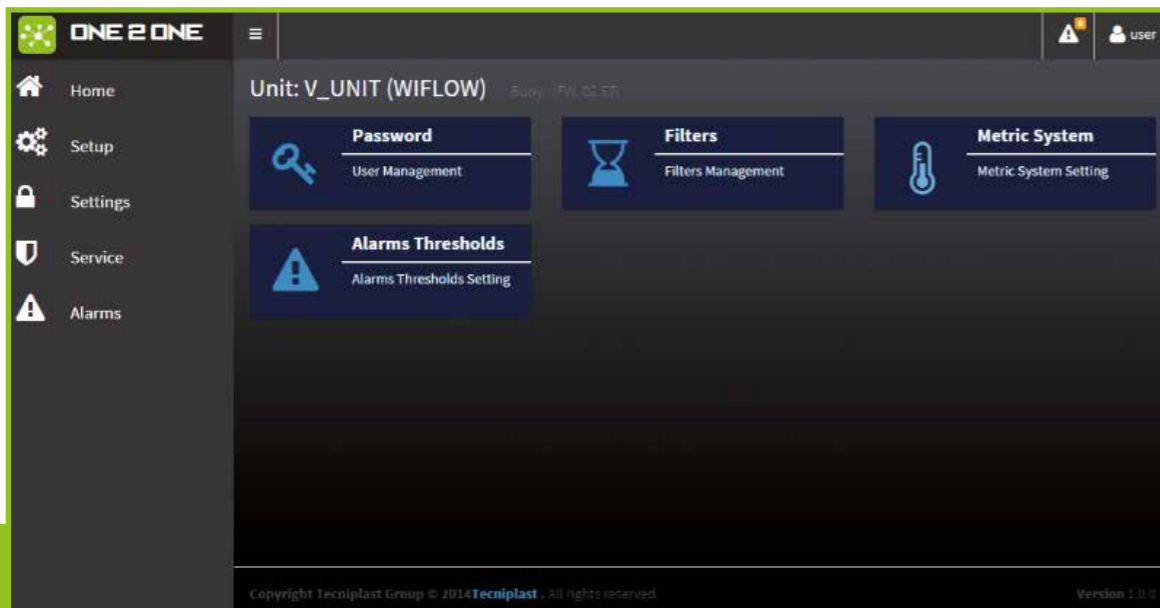
The system's interface allows facility managers to monitor the status of a cage or the cage system in the animal room at any given time.
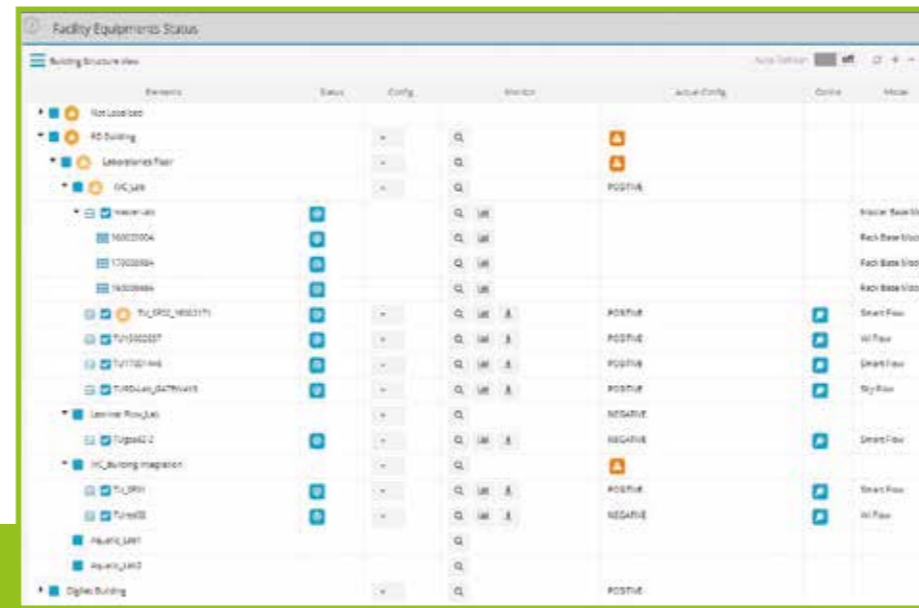
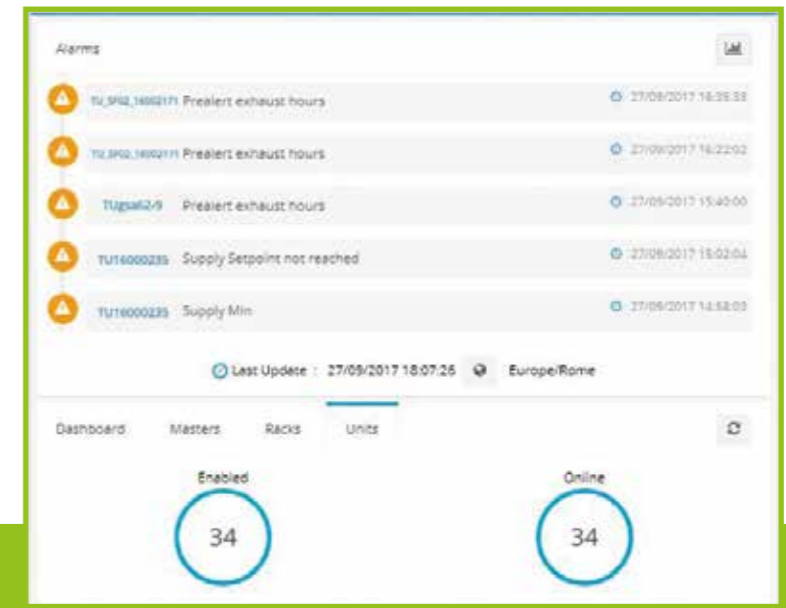Example of the operator interface during bedding changing

When the DVC™ detects a cage that needs attention, a LED light located in the runner turns-on to identify the cage.

ONE 2 ONE SETTINGS PAGE

GUARDIAN HOME PAGE: SET UP CONFIGURATIONS TO BE APPLIED IN ALL THE UNITS IN A ROOM/FLOOR

Today portable devices and remote control are widely used in several applications, everyone likes to deal with these devices and the advantages coming from their use are countless. Gateway is designed to be installed on Air Handling Units, compatible with Smart Flow, Easy Flow, Sky Flow, Touch Slim Plus, ISOcage N and ISO cage P, and enables two functions:
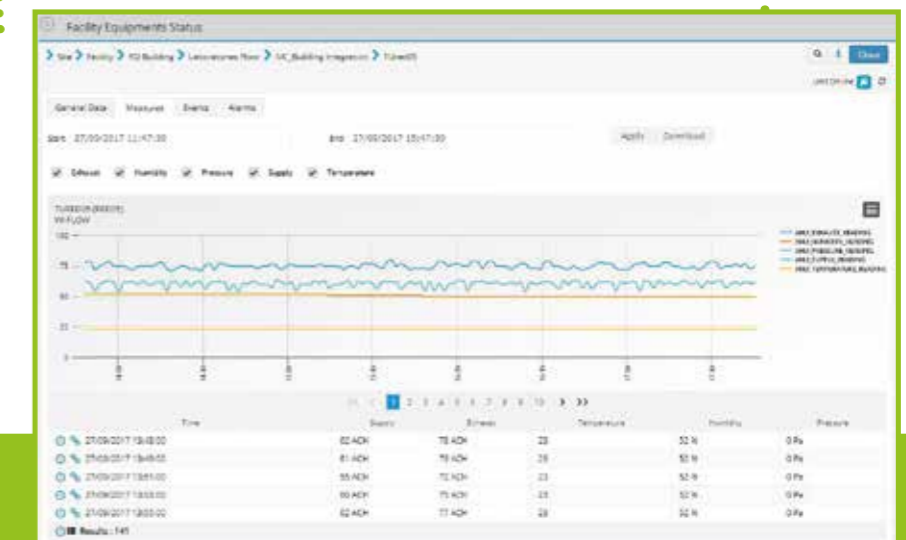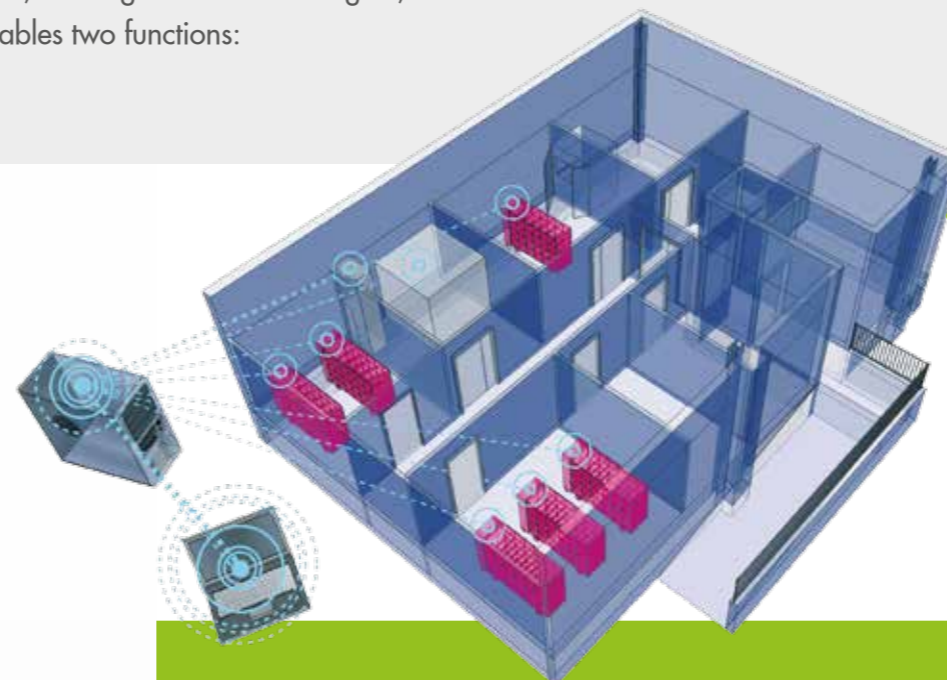
ONE 2 ONE

control the Air Handling Unit
via any portable device

- Only one portable device can be used to control each and every Air Handling Unit in the facility
- Full compatibility: the system works with any operative system or device

GUARDIAN

complete remote control of
all blowers in the facility

- Monitors, checks and controls all machines from the office
- Forwards alarm notifications, according to the preferences and timing: maximum safety
- Exports daily data
- Tracks and locates any Air Handling Unit preventing any possible mistaken set configuration: improved control and safety
- Creates data report for each or several machines, choosing the parameters to export: enhanced data monitoring

TECNIPLAST®
i n n o v a t i o n   t h r o u g h   p a s s i o n