

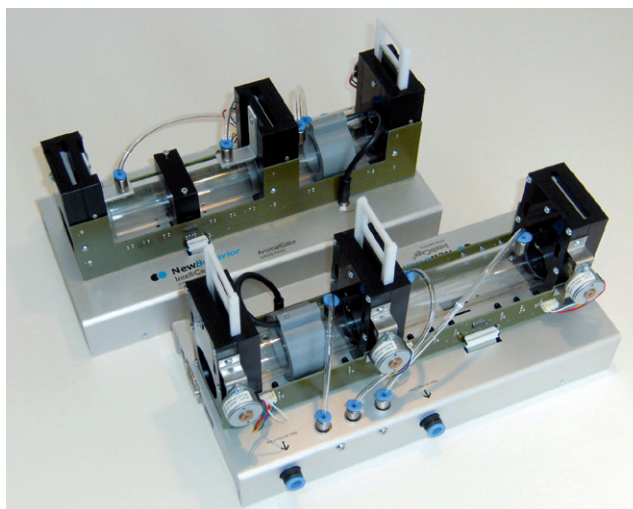
# IntelliCage<sup>®</sup> AnimalGate

**Controlling spatial access within  
your IntelliCage environment**

The **AnimalGate** is a fundamental extension to IntelliCage that permits selective passage of mice to a variety of external boxes or experimental set-ups. The system uses the same transponder technology as IntelliCage and is controlled by our upgraded IntelliCage Plus software. It represents the core structure of our future multifunctional test system – the IntelliMaze – a system whose development is supported by an EU-FP6 project.

## Chief Novelties and Advantages

- Expands IntelliCages to a multi-area system with selective access for individual mice
- Senses the direction of passage and distributes animals according to your directives
- Measures precisely body weight of mice passing (optional)
- Permits individual access to specific food or liquid sources, and any other connected area
- Expands the capacity of IntelliCage for measuring consumatory behavior
- Creates the opportunity to apply treatments differentially to specific animals without handling



AnimalGate with and without integrated balance

## General Features

The AnimalGate is a fundamental IntelliCage add-on that permits to extend the functionality of automated behavioral testing of mice living in social groups to an almost unlimited number of external test areas.

Its core function is to allow or deny access of individual transponder-tagged mice to external test or consumption areas, and keeps, if required, other mice away while the selected individual is performing the desired operations.

For optimal regulation of mouse traffic, our AnimalGate senses the direction of the moving animal, and can communicate this to external devices or IntelliCage itself.

In order to enable precise control of consumatory behavior, it (optionally) contains an integrated balance measuring precisely body weight of individual mice prior and after food intake. Likewise, the AnimalGate can monitor stress-induced or treatment-dependent decrease of body weight. Up to 4 AnimalGates can be connected to each IntelliCage, permitting to distribute animals between SocialBoxes, ConsumptionBoxes, ActivityBoxes, SoundBoxes or video tracking arenas (upcoming add-on), according to differential access rights desired by the experimenter.

The AnimalGate is controlled by an upgrade of the existing IntelliCage software, offering the same superb graphical online monitoring features for passage and body weight tracking.

## Behavioral Features

- Control of feeding and drinking
- Monitoring body weight, stress effects, health status
- Differentiation of treatments for specific animal groups
- Precise control of movement patterns and treatment applications

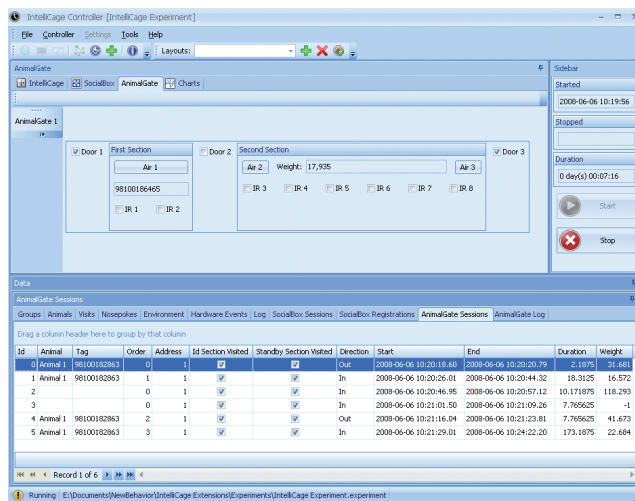
Developed with the support of the European Community (FP6 IntelliMaze 037965)

# IntelliCage® AnimalGate

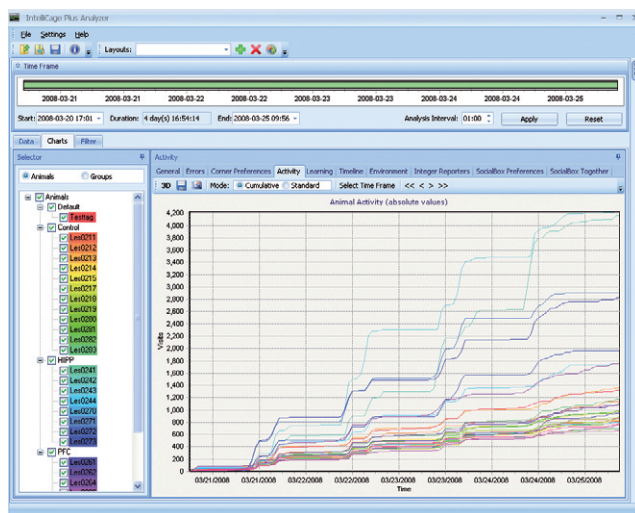
Controlling spatial access within your IntelliCage environment

## Flexibility of the System

One or several AnimalGates can be added to each IntelliCage allowing selective access to different arenas such as ActivityBox, FeederBox or many other. As for both IntelliCage and all IntelliCage add-ons, an initially basic system can be expanded gradually up to the maximal setup if requested thanks to the modular design of the system.



Screenshot of the software controlling AnimalGate



Screenshot of the analyzer-software

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## Technical Information

### Communication:

- CAN-bus

### Transponder types:

- DataMars & Trovan

### Included items:

#### Hardware:

- AnimalGate with RFID antenna
- Integrated high precision balance (optional)
- Connecting tubes to IntelliCage and to external arena
- 1 standard IntelliCage-cage (per 1-4 AnimalGates) with access ports
- 1 CAN-adaptor or CAN-card (per system)

#### Software:

- IntelliCage Plus – software package – upgrades existing IntelliCage software

#### Optional:

- high precision balance (integrated)
- spare cages
- additional transponders

#### Recommendations for the work environment:

- Temperature: 20-24°C, preferably stable
- Humidity: 50-60 %
- Power supply: 100-240V/AC