# **Noldus**



# EthoVision XT

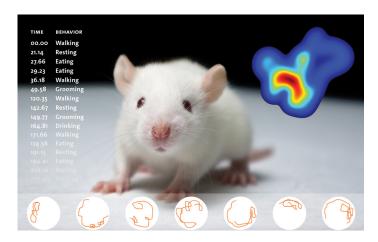
EthoVision® XT is the solution for automated tracking and analysis of animal activity and behavior, suited for everything from straightforward open field tests, to high-throughput research, to sophisticated protocols including external equipment control.

#### ANY ANIMAL, ANY SET-UP

A versatile product in every sense of the word, EthoVision XT can be used to track any animal in any kind of test set-up. A basic EthoVision XT set-up allows you to automate standard behavioral tests such as the water maze, plus maze, and open field test. The modular approach makes it a platform to build on. You can create fully integrated systems with hardware control, useful in many contexts including sophisticated operant experiments. EthoVision XT is easily used to automate high-throughput experiments, such as monitoring zebrafish larvae activity in 96-well plates.

# WHY USE ETHOVISION XT?

- The industry standard with more than 7,500 peer reviewed publications and used at more than 2,000 sites worldwide.
- Automatic detection setting, superior detection methods, and powerful analysis.
- Cost effective solution.
- Flexible to fit your choice of hardware.
- External (such as physiological) data integration.
- Versatile to automate:
  - all standard behavioral tests
  - sophisticated set-ups with hardware control
  - high-throughput research

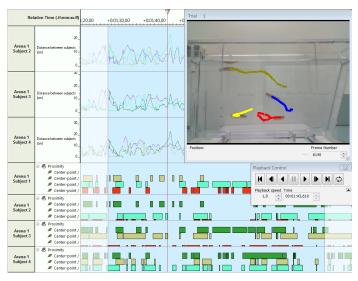


#### THE BASICS

EthoVision XT can help in almost any step of your research. From setting up the trial list to the presentation of your results, templates and built-in tutorials make the program easy to use for first-time users, while extensive analysis options help you get most out of your data.

Analysis is made easy with EthoVision XT. Link areas of interest within your arena to tracking parameters so you can easily answer questions such as: What was the latency to enter of the outer zone? How much time does the animal spend near the new object? Visualize your data in heatmaps, track plots, and graphs. Dynamically plotted data streams alongside your video, which plays with superimposed tracking results, to give you the best representation of your data possible.

In addition to video tracking, Etho-Vision XT also allows for activity detection, where frame-by-frame changes at the pixel level give you data on, for example, freezing behavior in rodents. Flip the analysis parameters to examine high levels of activity, such as those seen during seizure bouts.

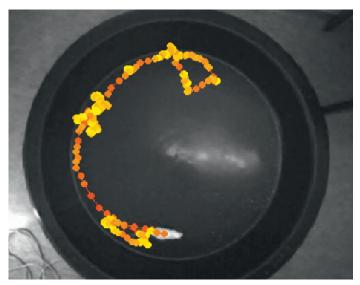


Integrated visualization shows your video, the tracking of the animals and a dynamic representation of your data in one view.

### **INTEGRATION AND CONTROL OF OTHER TOOLS**

Video tracking might be the core of what EthoVision XT does, but what truly sets it apart is the ability to integrate tracking data with other aspects of your experiment. This means that you can base the control of external hardware and software on the behavior of your animal(s).

How does this work? During tracking, EthoVision XT gathers information based on the coordinates of the animal and the zones or points of interest in the arena you have specified. This allows the software to tell, for example, when the subject has been immobile for 2 consecutive minutes, or when its nose point is in the feeding zone.



EthoVision XT can immediately use this information to control the action of other tools, such as starting a video to play, opening a door, turning on a light or audio signal, dropping a pellet, or triggering an optogenetic stimulus. In addition, EthoVision XT allows for the integration of video tracking data with physiological data.

#### **BEHAVIOR RECOGNITION**

In addition to tracking and activity related data, EthoVision XT can also recognize specific rat and mouse behaviors.

- Mice digging, drinking, eating, grooming, hopping, supported and unsupported rearing, sniffing, walking, and resting.
- Rats grooming, jumping, supported and unsupported rearing, twitching, sniffing, walking, resting, eating, and drinking.

## FIND OUT MORE

There is much more to tell about EthoVision XT. Curious? Go to www.noldus.com/ethovision or request your free trial version online.

VISIT OUR WEBSITE
TO LEARN MORE

REQUEST YOUR
PERSONAL FREE TRIAL

At the core of EthoVision XT: accurate tracking of any animal in any arena!

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We are also represented by a worldwide network of distributors and regional offices. Visit our website for <u>contact information</u>.

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