

# More power to your workstation with Freedom EVOware®



Freedom EVOware lets you take control of your lab workflow and protocols, combining both pipetting actions and scheduling in a single package. Available in Standard or Plus versions, Freedom EVOware is designed to grow with the size of your workstation and provide simple instrument control for your complex needs.

The system is guarded from unauthorized entry, providing discrete levels of access through its password protection system and is ideal for laboratories working to 21CFR part 11 regulations, since it generates the electronic logs required for audit trails, electronic signatures and multi-level password control. New users will find both Freedom EVOware Standard and Freedom EVOware Plus intuitive and easy to follow. Daily maintenance routines can be controlled from the start-up screens or users can click to run a pre-existing program. Users who choose to create a new protocol enter the heart of the program where the

image of their workstation acts as a virtual reference point for their design. The library of worktable and script templates helps users get started without delay, and a range of built-in wizards and dynamic HTML info-pads guide you through common modifications. More advanced users wishing to design their protocols from scratch will find all the information they need within the Freedom EVOware program. Users choose the function they require, then 'drag and drop' the robotic moves into the design of their protocol. Similarly, this time-saving 'drag and drop' feature allows you to access labware

definitions and over 75 new or third-party device drivers. A database of liquid classes helps to define parameters so that accurate pipetting and liquid handling is achieved for almost any type of liquid you are dealing with and, in all cases, the online help is ready to point the way. Having designed a new protocol, users are able to view it as a 3D simulation before it is transferred to the Freedom EVO® Workstation, providing the opportunity to correct or fine tune any steps.

Maximizing throughput and optimizing your resources is always a priority and this is where Freedom EVOware Plus comes to the fore. Incorporating all the features available in the Standard version, Freedom EVOware Plus also has an integrated scheduling facility designed specifically for high throughput, multi-plate applications. Its scheduling function allows users to create complex workflows, where the processing of a second batch of samples can begin before the first has finished, creating an entirely optimized protocol. Using Freedom EVOware Plus to design and run your protocols means your workstation need never be idle again.

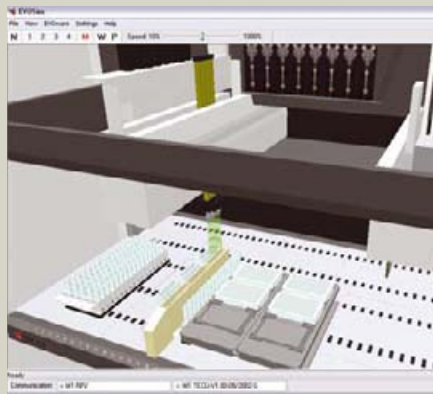
## Freedom EVOware takes control in San Diego

Tecan's Freedom EVOware has given researchers at the University of California in San Diego, US, the ability to program their Freedom EVO 200 Workstation to meet all their needs as they generate a genome wide RNAi library. *Drosophila* is used as a model organism and creation of

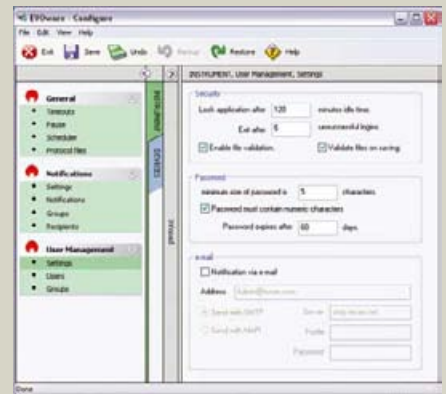
An overview of the different software packages available, including the new and improved Freedom EVOware v1.2



Freedom EVO 96



Freedom EVOsim LiHa RoMa



Password configuration

the library involves amplifying its 20,000 genes using specific primers, prior to making double stranded RNA.

The magnitude of the project initially presented some difficulties as Jeff Reid, staff research associate, explained:

*“The large number of primer pairs involved in amplifying the genes and the scale of the PCR reaction preparation meant that carrying out the PCR process manually was not feasible. The obvious answer was to automate the procedure using our Freedom EVO Workstation, and so we turned to Freedom EVOware to design the protocol.”*

“We have found Freedom EVOware to be a good program, which is very user-friendly and reliable,” Jeff continued. “Compared to other, similar programs I have used, the Freedom EVOware desktop interface is definitely a lot cleaner. You can optimize standard protocols by accessing the commands and flight types that you need without being slowed

down by a large number of options that you are never going to use. Depending on what you want to achieve, you can really do a lot with Freedom EVOware. It lets you get as complex as you like in terms of workstation protocols and it gives you a greater degree of freedom to create more elegant programs.”

The laboratory’s workstation has a single, eight-channel liquid handling (LiHa) arm, a robotic manipulator (RoMa) arm and a Te-MO™ 96 multichannel pipettor. The Te-MO 96 aliquots primer pairs and transfers them to 96- and 384-well plates containing genomic DNA, ready for the first round of PCR. The products of this first PCR reaction are then transferred, again by the Te-MO 96, to a fresh plate and act as templates for the second amplification step. Special primer sets are introduced during the second round of amplification to minimize cross-contamination of the samples. As the project progresses, the final PCR products will be prepared for the generation of double stranded RNA and the resulting RNAi library will be normalized for use in transfection studies.

The project has so far amplified 7,000 genes ready for conversion into RNAi molecules, with the amplification of the remaining genes part of the laboratory’s long-term goal. The team is proposing to use the RNAi library in high throughput light microscopy and positron emission topography studies to see what effects the presence of the RNAi molecules has on specific gene function in *Drosophila*.

### New and improved Freedom EVOware v1.2

Freedom EVOware version 1.2 is now available in both Standard and Plus forms for all Freedom EVO Workstations, and offers the added advantage of full integration with Tecan’s new i-control software for the series of Infinite™ microplate readers. The Application Programming Interface (API) enhancements give programmers the freedom to control Freedom EVOware remotely and to install their own error handling routines, as well as extending Freedom EVOware’s device support through the driver toolkit. This latest version provides the simultaneous control of up to three workstation arms, including two LiHas and the enhanced Pick and Place arm. It will also control the new PosID™ 3 positive identification system and gives improved movement in the Z-axis of the Te-MagS™.

Freedom EVOware v1.2 operates on all four Freedom EVO Workstations (75, 100, 150 and 200) and is available for existing customers<sup>1</sup>. Tecan software engineers and product care teams are on hand to answer questions from customers directed through your local Tecan sales organization, providing technical support as a priority.

<sup>1</sup>Existing customers should contact their local Tecan representatives to check for compatibility



What do you want to do?