

# *MA Training -* Level 1

## *The objectives:*

- Create your own Fixture Type
- Live Programming with Edit/Update
- MIB, Move in Black
- Assign Options
- Programming of Effects and Modulators
- Timing Parameters
- Store Options
- Special Live Features
- MA Network Configuration

## *General Overview*

The "Programmer" is responsible for the programming of the lights. In most cases the so-called "Operator" is the person who will work with the show after the programming. Of course both jobs can be done by the same person, however they have slightly different roles. The programmer has to translate the designers creative thought processes and language into a software language and then into a process that can be entered as button presses on the console. It is absolutely essential that the programmer knows/understands the designer as well as the software. The realisation of the creative idea totally depends on this series of translations.

A further component of this process is an extensive knowledge of the equipment that has to be programmed, e.g.: dimmers, colour changers, LEDs, moving lights and video server of different manufacturers. Unfortunately there is no standard for this equipment. That is why the programmer has to be able to do a checkable administration of all data with the help of the software.

The console has the set-up. The starting point for an optimal set-up is the personalities of the fixtures as well as their administration in the patch. Many parts of the software are integrated in the extensive set-up, e.g.: groups, MAtricks, macros, presets, effects, views, worlds, layouts, bitmap effects, 3D set-ups and console pre-settings. After the patching and set-up of the console the real work can then be done: the programming.

The programmer and the designer have to agree on a working method to be able to realize the programming. In the past, as well as today, these working methods were based on the special characteristics of the different lamps/luminaries, which have further developed through time.

Initially everybody was thinking of a working method of only dimmer attributes. The easiest way to administer HTP dimmer attributes was to program with the Non-Tracking concept. Due to the high number of automated colour changers and luminaries the industry developed lighting consoles developed that were able to administer LTP motor attributes by using the tracking concept for the programming of cue lists.

Each of these concepts has got strong and weak points. For modern desks it is absolutely essential that the hardware and the software realize both concepts in an optimal symbiosis.

The growing complexity and size of modern lighting systems requires new concepts to be able to realize ideas into the programming with several different programmers simultaneously working and keeping within time periods that are getting shorter and shorter.

For the programmer the multi-user programming means that a common concept must be agreed for the set-up and the programming together with the designer and his programmer. Therefore every multi-user system demand requires a system designer who develops the corresponding hardware and software concept. At the moment such multi-user concepts are exclusively made for planned shows. Single or several cue lists have to be made to be able to recall special show programmes. Sometimes there are shows which don't have any special rigid pre-prepared plan; these are set up and programmed according to another concept. In this special case usually the designer is also the programmer; he prepares his console for Live operation. Normally then selective programmed cues for dimmers, pan/tilt, colours, etc. that have been set up can be used during the show LIVE in any possible combination. Pre-adjusted and indefinite show parts require both of them; a console in correct set-up as well as the working set-up itself. In this case, a larger number of parallel outputs are required so the console can be played like a musical instrument such as a keyboard during the performance.