What is the Programmer

The programmer is a temporary memory, where the edited values are placed. The values can then be stored or released.

Every user has their own programmer.

The programmer has three levels:

- Selected fixture
- Active programmer values
- Inactive programmer values

The programmer values usually affect the output from the system. But there is a **Blind** function that allows hiding the programmer values from the output.

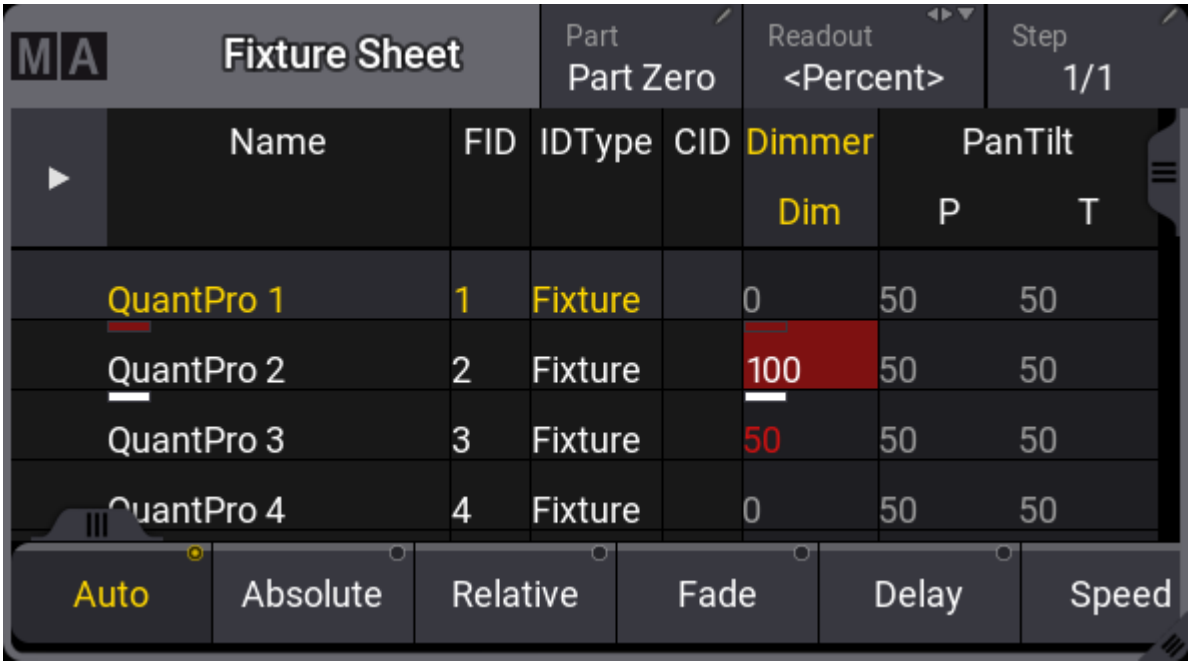
Selected fixtures are the ones that will be affected by encoder input and any intensity changes. Selected fixtures can be identified by having a yellow name and ID text color.

Both active and inactive programmer values can affect the output. The difference is that the active values will be stored using the default **store options** (Use Selection = Active).

Active values have a red background, white value text color, and a red marker in the fixture sheet.

Inactive values have red value text color and a white marker in the fixture sheet.

These are the default system colors. Read more about all the different system colors in the **system (color) topic**.



Values in programmer

When a fixture is selected, it is possible to press Please twice to activate all attributes for the selected fixture. This puts all the current values for all the attributes of the fixture in the programmer. Press Please once more, and the attributes will be inactive values in the programmer.

To release values from the programmer, press Off and then tap the value to deactivate it. Feature groups can also be released from the programmer using Off and then tapping the encoder toolbar.

When there are values in the programmer and a fixture is selected, it is possible to use the clear button to clear each of the three levels:

- Press Clear to deselect the fixture but keep the active and inactive values in the programmer.
- Press Clear again to keep the values in the programmer but as inactive values.
- Press Clear a final time to clear the programmer and release all the values.

Completely clearing the programmer can also be done by holding Clear for more than one second.

The associated keywords are **Clear**, **ClearSelection**, **ClearActive**, and **ClearAll**.

The Clear button in the AT overlay executes the Clear command. For more information, see **At overlay**.

Layers

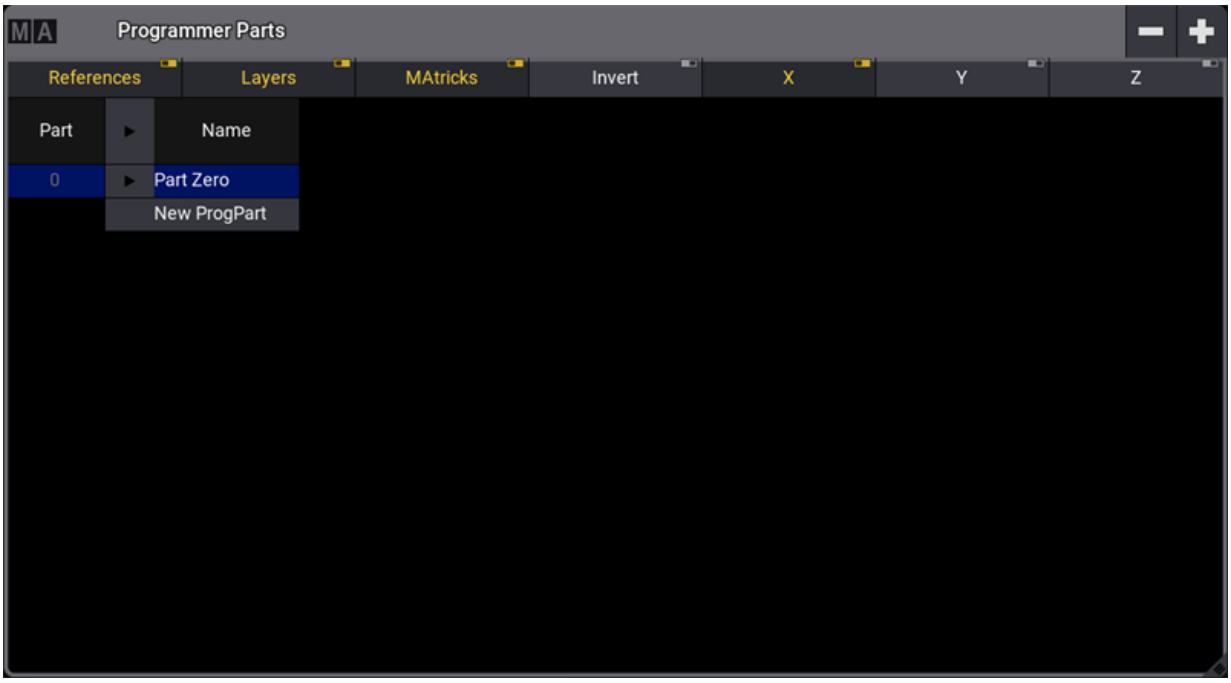
The programmer has several layers. Normal values - for instance, a selected static position - are in the **Absolute** value layer. An absolute value can be affected by a value in the **Relative** layer. For more information, see **Encoder bar**. A dark purple marker indicates relative values. The **Fade** layer can be used to adjust and see individual fade times. Individual fade times are indicated with a green marker. The **Delay** layer can be used to adjust and see individual delay times. An orange marker indicates them. These values are best looked at in the **Sequence Sheet** in tracking mode. Learn more about **Individual Attribute Timing** in Cues and sequences topic.

Programmer Parts

The programmer can have several parts (Maximum: Part Zero + 239 individual parts = 240 parts). The ProgrammerParts window shows all parts of the current programmer. Parts can be labeled here directly.

Using cue parts is a good way to organize your show better. The primary information for every cue is in part 0. Part numbering starts at Part 0. Presets can be called into the programmer parts automatically when calling the preset. This creates then the respective cue parts when storing the programmer content into a cue. Learn more about pool settings at **Preset Pool — Preset Pool Settings**.

To see all active programmer parts, open a Programmer Parts window. For more information, see **Add Windows**.



Programmer parts can be deleted or created using the buttons in the title bar. A part can be selected by tapping the part in the window. A new programmer part can also be created using the command line and the **Programmer keyword**.

To create programmer part 3, which is labeled "Color", type:

```
User name[Fixture]> Store Programmer 3 "Color"
```

Select the programmer part simply by writing the keyword and the number or name.

```
User name[Fixture]> Programmer "Color"
```

When a programmer part is empty, it will be deleted when entering a different cue part.

For example, to store cue 12 with part cue 3, type:

Store | Cue | 1 | 2 | Cue | 3

```
user name[Fixtures]>Store Cue 12 Part 3
```

Freeze

By default, the executors have a higher priority than the programmer. That means that the programmer's values can be changed if a running executor has stored values for the same attributes. To give the programmer a higher priority than the executors, press Freeze. This keeps the adjusted values in the programmer even when the executor is executed.

Blind

Blind is a function that hides programmer values from the output. The blind mode can be toggled On and Off by pressing Blind or by using the **Blind Keyword**.

Turning on blind without any values in the programmer does not change the output. The changing values while in blind do not affect output. If the programmer is cleared before leaving the blind mode, then the output is not affected. Leaving blind with programmer values will take these values to the output. Entering blind mode with values in the programmer removes them from the output, meaning the output is changed.

Program Time

The value changes in the programmer are usually done immediately. But the value change can be done with a timed or manual fade using the **Program Time** function. Read more about it in the **Time Control topic**.

Preview

When in preview mode, the user can have values entered in a separate programmer and will never generate output on a real stage. The preview programmer behaves the same as the normal live programmer.

To enter the preview mode, press Prvw. When Preview is active, Prvw is lit up, and the borders of the following windows will turn red:

- 3D
- Align Bar
- At Filter, window, and overlay
- Color Picker
- DMX Sheet
- Fixture Sheet
- Layout
- MAtricks, window, and overlay
- Phaser Editor, window, and overlay
- Programmer Parts
- Selection Grid
- Smart
- Step Bar

To exit the preview mode, press Prvw again. The border of the windows listed above will turn gray.

The output of the preview programmer will be displayed in the corresponding windows. if the values of the preview programmer were not manually cleared, leaving and entering the preview mode will bring back the previous values.

Editing cues and presets in preview mode will turn the window frame to yellow.