

ptxC4 - Sequences

Manual

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1 Introduction

From the ptxC4 version 5.0.0 the ptxC4 supports the creation of so-called sequence projects. Unlike the previous cue release using ignition time / ignition number in a consecutive ignition list, the effects in sequence projects are divided into sequences. In show mode the individual sequences can be accessed and triggered via touch fields spontaneously and in any order and combination. This allows a very flexible show execution as it's often desired for live shows.

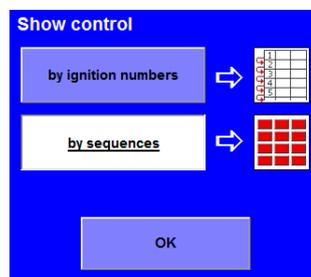
A total of 128 sequences are available, divided into 4 groups. In a fifth group there are 24 sequences for direct activation of DMX scenes.



The following instructions for creating and running sequence projects assume that you are familiar with the basic operation of the C4.

2 Create a new sequence project

To create a sequence project, select **New project** in start screen, assign a name, and then select the option **by sequences** in the **Show control** window.



To create projects using the previous procedure, select the option **by ignition numbers**.

When loading a project, a distinction is made between the two project types with a corresponding entry in column **Type**:

Project	Type	Last handling
1 Cue 1Std	IN	24-Okt-2016 09:50:59
Test project 1	IN	24-Okt-2016 09:50:15
Sequ. Test	SQ	24-Okt-2016 09:49:17
Sequ mit neuem Konfig	SQ	24-Okt-2016 09:27:53

SQ = Sequence project

IN = Ignition number project

3 Edit sequences

In the editor, the group and the currently selected sequence are listed in the upper screen area. Below, the cues of this sequence are shown in known manner. The data input is also done as usual.

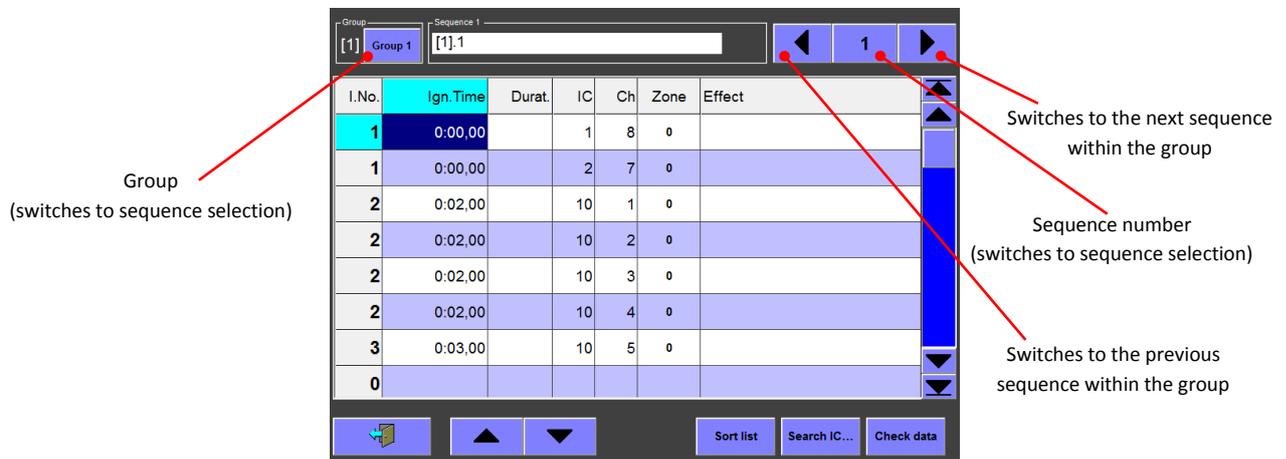


Figure 1: Sequence view in editor

Within a sequence, pyro effects (IC addresses) and DMX scenes can be mixed. Sequences that contain at least one DMX scene are displayed again as "restartable" after a trigger during the show execution.

The function **Sort list** refers to the currently selected sequence list, while the functions **Search IC ...** and **Check Data** applies to all sequences.

There are 20 cues available per sequence. In each sequence, the automatic ignition numbering always starts at 1, regardless of the ignition times in the other sequences.



*In show mode, the final ignition numbers are recalculated based on the sequence selection made by the operator (s.a. **Show execution**)*

Selecting the group or the sequence number will take you to the sequence selection window. Here you can load each sequence of the project into the editor via group and sequence selection. The following functions are also available:

- Name groups und sequences
- Adjust group color
- Arrange sequences within a group

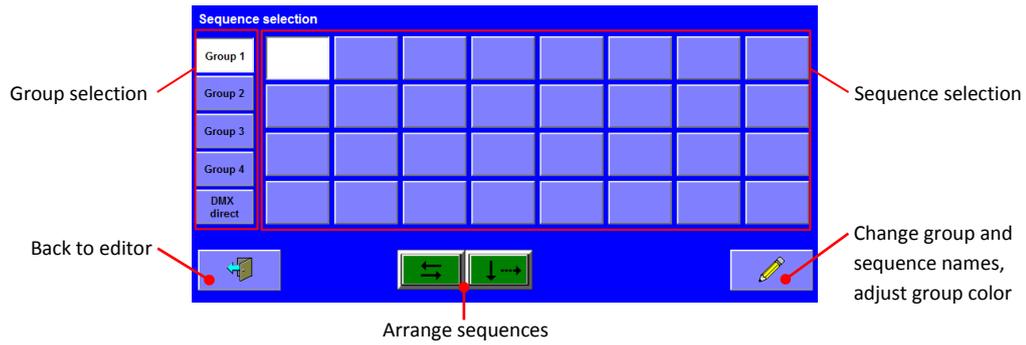


Figure 2: Sequence selection

3.1 Change names and colors

Tap on  in the Sequence selection window. The window Group and sequence name is displayed.

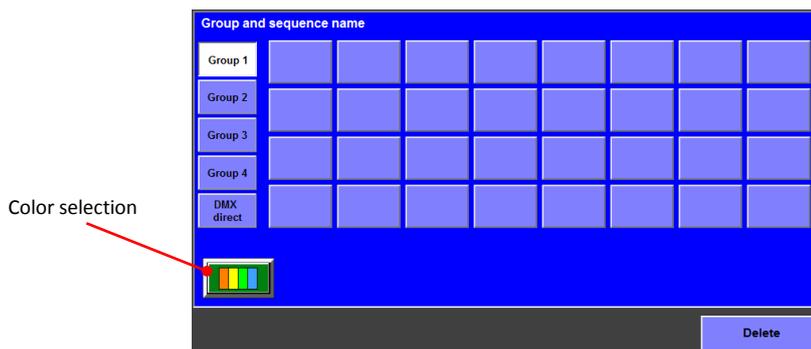


Figure 3: Group and sequence name

To change a name, tap on the corresponding group or sequence button and enter the new name using the displayed keyboard. The entered text always refers to the selected group or sequence. If you complete the entry with the return key (↵), the next group or sequence is automatically preselected.

Group names must be unique and consist of at least one character.

Sequence names must only be unique within the group and can also be deleted completely if the sequence contains no data.

 If you define ignition data in the editor without having already assigned a name for this sequence, the default name of group number and sequence number is automatically entered (for example, [1].4 → Group 1, Sequence 4). You can also change the name of the current sequence directly by tapping on the white field with the name.



With **Delete**, all sequence names of the selected group will be deleted. Sequences containing ignition data are automatically assigned the default name of group and sequence number.

To set the color of a group, close the keyboard (ESC), if necessary, and tap the color selection. By selecting a single color, you can change the color of the currently selected group.

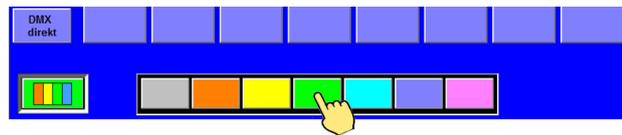


Figure 4: Set group color

To finish, tap the color selection again.

 The group and sequence names as well as the group color can also be set independently of the editor via **Setup**.

3.2 Arrange sequences

In **Sequence selection**, there are two possibilities for the subsequent arrangement of sequences within a group:

-  → Swap two sequences
-  → Move/insert a sequence

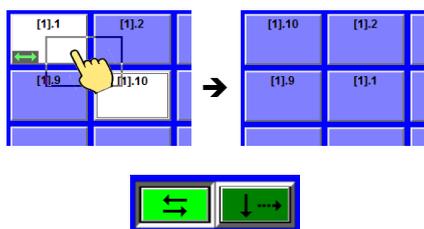
First select the desired function (swap or move). The corresponding button starts flashing.

To change the position of a sequence,

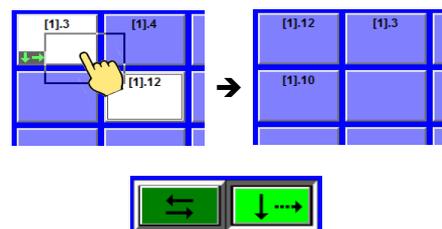
1. press and hold down the sequence button and
2. move the selection frame to the new position and release it.

Examples:

a) Swap sequence 1 und 10



b) Insert sequence 12 before sequence 3



When you move/insert a sequence, you can see the direction on the target sequence button in which the sequences are moved so that the selected sequence can be inserted:

-  Sequences will be moved to left
-  Sequences will be moved to right

To close the arrange mode, tap the flashing button again.

3.3 Sequence entry in IC view

In contrast to ignition number projects, no ignition numbers are displayed in the channels of IC view during the assignment of an ignition address (IC and channel), because the ignition numbers start at 1 for each sequence and thus are not unique in the editor. Instead a unique sequence ID is displayed for sequence projects. It consists of group number, sequence number and ignition number, with a dot as a separator.

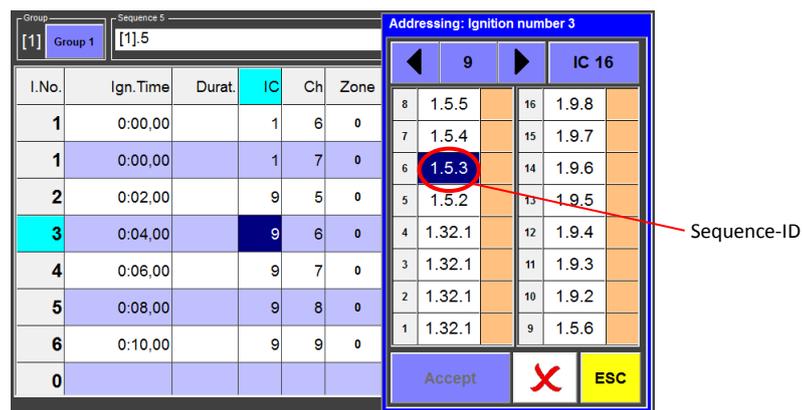


Figure 5: Example: Addressing of ignition number 3 of sequence 5 from group 1

3.4 DMX-direct-switchings

The last sequence group is reserved for DMX effects or scenes which can be directly switched on and off by the operator, independently of the automatic execution of sequences of the other groups. There are two different switching possibilities:

1. Switching under use of C4 key Set
2. Switching under use of C4 key Manual Fire

Therefore the DMX-direct-switching group is divided into the areas **SET** and **Manual Fire ...**.



Figure 6: DMX-direct-switching group

DMX-direct-switchings, which are activated with Set, remain active until they are switched off by the operator. A typical use case is the activation of DMX security channels throughout the duration of the show.

DMX-direct-switchings, which are activated with Manual Fire, remain active while fire key is pressed down. This allows spontaneous DMX effects with and variable duration.

In both cases the ignition time and the switch-on duration are specified by the operation. Thus no specification of the ignition time and duration is necessary for the cues of a DMX-direct-switching. In the editor, Ign.Time is automatically set to 0 and the ID ... is entered in the column Duration if you have selected the desired scene in column Scene.

I.No.	Ign. Time	Durat.	IC	Ch	Zone	Scene
1	0:00,00	...	DMX		0	Szene 7

Figure 7: Scene entry in cue for DMX-direct-switching

 Ignitions of pyro effects via IC channels are not possible within DMX-direct-switchings.

3.5 Special markings

When a sequence is activated in the editor, it is automatically checked whether the ignition data has been entered completely or whether there are any data at all.

If data are incomplete, the sequence is marked with the symbol  next to the label field. This marking is also found on the buttons in the sequence selection window.

If a label is entered for a sequence, but no data (more) is defined, the button  is displayed next to the label field to delete the label if necessary. In the sequence selection window such sequences are marked by an *italic* representation of the button label.

Example: "Sequ. 15" is defined, "Sequ. 16" is not defined →  

Sequences for which neither a description nor data has been entered, are marked in the editor with the entry `>>> Not defined <<<` in the label field.

4 DMX-Test

The DMX-Test is always performed for a single sequence, selected by the operator. Therefore, when the DMX-Test is activated, the sequence selection is also activated. Only sequences with at least one defined DMX scene are released for the DMX-Test. All other sequences are blocked for selection.

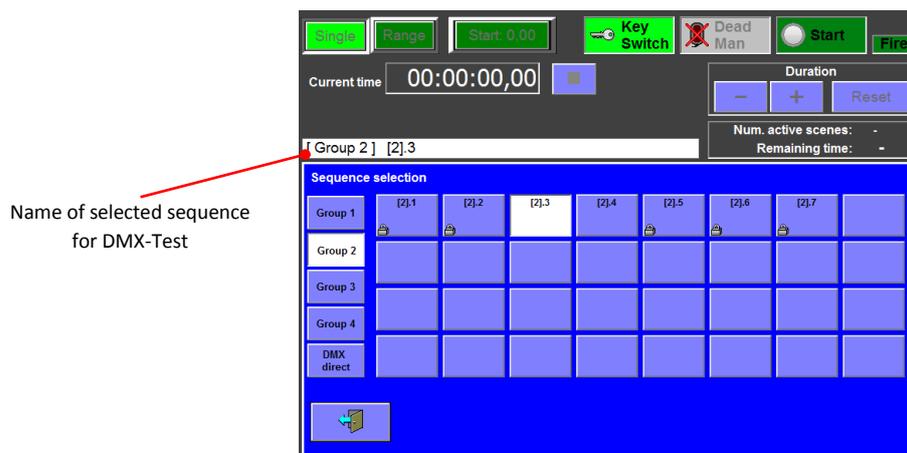


Figure 8: Sequence selection for DMX-Test

If you change the duration of a scene in the DMX-Test, the new value is accepted to the corresponding sequence. The scenes of the DMX-direct-switching group are an exception. For these scenes the duration will be defined by the operation (see *DMX-direct-switching*). For DMX-Test the duration is automatically set to one second. The duration can be changed as required, but the value is not accepted to the DMX-direct-switching.

The DMX-Test is performed in the usual way.

In the operating mode **Single** only the scene of a single cue is tested. You can define the cue by selecting the corresponding line in the ignition list.

In the operating mode **Range** the scenes of all marked cues are tested. To select a range,

1. select the first cue of the range,
2. tap the range marker ,
3. select the last cue of the range.

The range is then highlighted in green.

If you select only one cue, the test is performed from this cue until the end of the ignition list.

By activating **Start: 0.00**, the test starts at time 0, otherwise at the ignition time of the first cue of the selected range.

5 Show execution

The show execution of sequence projects is basically done in such a way that the operator preselects one or more sequences via the touch fields and then starts the sequence at the given time. The cues of the selected sequences are loaded into the ignition list. This ignition list is processed in the usual way.

When switching to the show mode, the sequence selection is activated as it is already used in the editor. However, all buttons, for which the corresponding sequence contains no data, are displayed without group color and without description and they are blocked for selection.

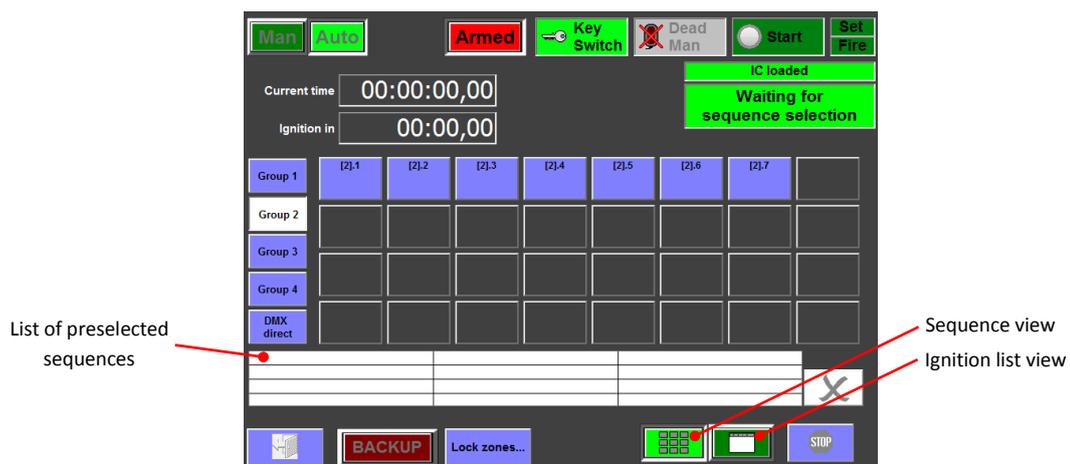


Figure 9: Sequence view in show mode

5.1 Preselect sequences

After selecting the operating mode **MAN** or **AUTO**, all defined sequences are released for the preselection. When you select a sequence, the button is white-colored and the label is entered in the list of preselected sequences. If the list is filled, no further sequences can be added. To remove a sequence from the list, tap the corresponding (white-colored) button again. Press  to delete all entries from the list.

The cues of the preselected sequences are automatically entered into the ignition list and sorted according to the ignition times. Tap  to switch to the *ignition list view*. Tap  to return to the *sequence view*. You can switch between the two views at any time, even if the selected sequences are started and executed.

By compiling sequences and the associated sorting of the cues, it's possible that the ignition time intervals are below the system-related minimum values of 30ms respectively 60ms. This results in simultaneous ignition of different ignition numbers when show is running. For your information, a corresponding note is displayed below the list of preselected sequences:

Ignition time distance too small => simultaneous ignition !

In the ignition list, the ignition times of the affected cues are highlighted in red and underlined.

5.2 Start partial show

If the system is in ready-to-fire mode (Armed and key-switch on position "Fire") the preselected sequences can be started as a *partial show* with the C4 key  Start. For the operating mode MAN the view is automatically switched to *ignition list view*, since the cues have to be triggered manually by the operator.

 After the start of a partial show the list of preselected sequences is immediately emptied. This allows you to preselect the sequence(s) for the next partial show.

The buttons of the started sequences are colored red for the entire duration of the current partial show and locked for operation. 

At the end of a partial show, a check is carried out for each participating sequence with regard to the triggering of the individual cues:

- For sequences, where **all cues have been triggered** and **no DMX scene** has been defined, the buttons are colored black and hatched. 
- For sequences, in which **not all cues have been triggered** or **at least one DMX scene** has been defined, the buttons are displayed again in the standard view. 

5.3 Cancel partial show

To cancel a running partial show prematurely, pause the show via  Start, tap  and confirm the abort.

5.4 Change operating mode

The operating mode in which a partial show is run can be changed before every start. Unlock the operating mode switches with  Set (keep pressed down) and tap the desired operating mode.

5.5 Trigger DMX-direct-switchings

The DMX-direct-switchings (last group) can be triggered independently of the partial shows. However, please note, that in **manual** partial shows the cues has to be triggered by the operator and for that the view must set to *ignition list view*. In this case, DMX-direct-switchings are only possible if temporarily no cue of the partial show has to be triggered and thus the *sequence view* can be selected.

To turn on DMX effects from the area SET, press and hold down  Set, then tap the appropriate button within the SET area. The button is red colored and the DMX effects are triggered. The button  Set can now

be released. The DMX effects remain active until you turn it off. The turn-off is performed in the same way as the turn-on.

To turn on DMX effects from the area **Manual Fire**, first tap the corresponding buttons within the **Manual Fire** area. The buttons are labeled with a red flashing frame, which marks the pre-selection for manual triggering. To turn on the DMX effects, press and hold down  Manual Fire. The preselected buttons are red colored and the DMX effects are triggered. **The activation ends with the release of**  Manual Fire. The pre-selection (red flashing frame) is automatically reactivated and you can trigger the DMX effects again with  Manual Fire. To deactivate a single preselection, tap the appropriate button. The entire preselection can be deactivated with .

5.6 Exit show mode

To exit the show mode, the following conditions must be fulfilled:

- a) No partial show has started
- b) All DMX-direct-switchings are terminated
- c) No sequences are preselected

If necessary you can cancel the running partial show (see also *Cancel partial show*).

If all conditions are fulfilled, tap  and wait a little until the IC's are unloaded. Afterwards you can leave the show window.