# Increase the number of graphic layers by controlling PIP objects



The actions described in this article will require a basic knowledge of setting up program channel, creating graphic compositions, using API.

### Task

We need to output age markers, but there are no free graphics layers, as they are all already used to output graphics on a regular basis.

## **Solution option**

You can use a graphic composition with PIP objects as containers for reproducing other graphic elements and compositions. That is, one PIP object would conventionally add us one more controllable graphic layer. One graphical composition, occupying one real graphical layer, can contain several PIP objects, which allows to realize layer sharing. The PIP objects within the graphical composition will be managed through API.

#### Setup

#### **Creating a composition**

Create a graphics\_editor infinite-length composition and add to it the number of empty PIP objects you plan to control. Let's name the composition "pip\_layers".



Give the PIP objects unique names.

. Remember that the names of all graphic elements within graphic compositions being played in the program channel at the same time are in a single namespace. If two elements from different compositions have the same name, you may get unexpected results when you try to control them through the API.

#### **Adding action**

Go to program channel settings and create a new action that will load the age16 graphic composition with the age marker 16+ into the PIP object. For other markers the actions will be similar.

Add Action		
Action configuration Name: age_pip_start Layer: 1 Delay: Address: Service: Program_1 Action: Graphics action Enabled	Action condition Variable: GPI 1 value Trigger if: EQUAL Value: 16 Select OP V Variable: None Trigger if: EQUAL Value: Trigger at start when primary matches Trigger at end when primary matches Trigger when secondary matches Trigger when keypoint matches Keypoint Track: Keypoint Track: Keypoint Title: Trigger period (sec):	Action parameters   Param 1: pip_next_clip Param 16:   Param 2: age_pip Param 17:   Param 3: age16 Param 18:   Param 4: 0 Param 19:   Param 5: 1 Param 20:   Param 6: Param 21: Param 22:   Param 7: Param 23: Param 23:   Param 9: Param 24: Param 10:   Param 10: Param 25: Param 11:   Param 12: Param 26: Param 12:   Param 13: Param 28: Param 28:   Param 14: Param 29: Param 30:

Ok Cancel

Let's take a closer look at the action settings:

Parameter	Opinion
Name	The arbitrary name of the action that will be displayed in the control panel
Layer	The number of the layer where the action will be triggered
Service	The name of the program channel that will execute the action
Action	The name of the action to be executed. You must select "Graphics action"
Action condition	In this area we set the condition that must be fulfilled in order to start the action. In the example we have specified that the action will be executed on the start of the event on the base layer if it has a value of 16 in the GPIv1 column.
Action parameters	Specifies the set of parameters that will be passed when the "Graphics action" action is executed
Param 1	The graphics API command to be executed. In our case the "pip_next_clip" command will be used, which adds a new clip to the play queue of the PIP object and allows it to run immediately.
Param 2	Sets the name of the PIP object to which the command will be passed.
Param 3	Sets the name of the clip you want to add and play in the PIP object.
Param 4	Defines whether the clip should be repeated cyclically. 0 - the clip will not be repeated.
Param 5	Defines the auto playback start of the clip after it is added. 1 - start playback immediately.



. Remember that if you apply the updated settings, the program channel service will restart. This will cause playback to stop and the broadcast will be interrupted.

## Using

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Add the "pip\_layers" graphic composition to the freed graphic layer, start playing it, and then wait for the condition to trigger the previously configured action.

The "age16" composition will automatically play inside the "age\_pip" PIP object from the "pip\_layers" composition.

