TPP
Programmer's Guide

Addendum
For version v01.04.74

ANALOG WAY®
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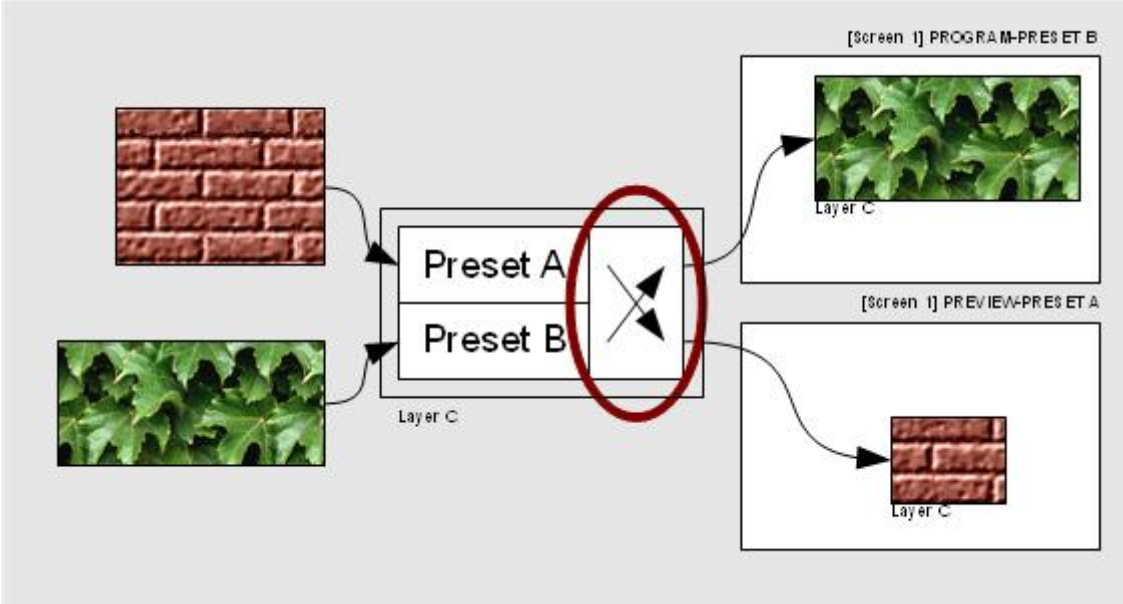
1 PRESET A/B FLIP-FLOP

Due to internal machine structure, user actions that are listed after are made of several commands, some of them used to retrieve current path through internal resources.

For example, to achieve perfect seamless image switching in a layer, the machine uses internal processing resources named "***Preset A***" and "***Preset B***" with a flip-flop method. At a given instant, you need to read the currently used Preset before modifying parameters of a picture displayed in a layer.



Picture 1: Preset A/B flip-flop

2 READING/CHANGING A LAYER POSITION

2.1.1 Usage

The "Layer Position read" or "Layer Position change" action is made of multiple commands, used to set parameters like destinations source, screen and layer. Further, the currently used "***A/B Preset***" must be read to set the required destination.

2.1.2 Summary of the commands sequence

- Get the current U/D status
- Select the next command based on Program/Preview and U/D status
- Get the A/B status with the previously selected command
- Read or Set the Layer position.

2.1.3 Detailed commands sequence

- **Get the current U/D status**: This command retrieves a status named **U/D** in order to be used in the next command.

  Syntax : <scrn>,GCsta $^{L}_{F}$

  <scrn> is the WebRCS screen number minus 1, legal values are from 0 up to 1, depending on mixer mode.

  Answer : GCsta<scrn>,<U/D value> $^{C}_{R}{}^{L}_{F}$

  <U/D value> is the returned U/D status value that will be used to select the next command.

- **Select the next command**: Depending on the Program/Preview destination and depending also on the previous U/D status, applies the following logic :

  IF ((*Program destination* AND *U/D status value is 0 or 2 or 4*) OR
  (Preview destination AND U/D status value is 1 or 3 or 5))
  THEN use ***GCpdn*** *command as next command*
  ELSE use ***GCpup*** *command as next command*

Or

Destination / U/D status	Program	Preview
0 or 2 or 4	***GCpdn***	***GCpup***
1 or 3 or 5	***GCpup***	***GCpdn***

- **Get the A/B status** : using the previously selected command, retrieve a status named **A/B** in order to be used in the next command.

Syntax 1 : <scrn>,GCpdn $^{L}_{F}$

<scrn> is the WebRCS screen number minus 1.

Answer 1 : GCpdn<scrn>,<A/B value> $^{C\ L}_{R\ F}$

<A/B value> is the returned A/B status value that will be used in the next command.

Syntax 2 : <scrn>,GCpup $^{L}_{F}$

<scrn> is the WebRCS screen number minus 1.

Answer 2 : GCpup<scrn>,<A/B value> $^{C\ L}_{R\ F}$

<A/B value> is the returned A/B status value that will be used in the next command.

- **Read the layer position**:

retrieved Syntax : <scrn>,<A/B value>,<layr>,PRpoh $^{L}_{F}$ Parameters are screen, previously A/B status and layer.

And <scrn>,<A/B value>,<layr>,PRpov $^{L}_{F}$

<scrn> is the WebRCS screen number minus 1.

<A/B value> is the value retrieved in the previous command.

<layr> is a value representing the destination Layer. (0 for Layer A, 1 for B, 2 for C and 3 for D)

Answer : PRpoh<scrn>,<A/B value>,<layr>,<posh> $^{C\ L}_{R\ F}$

And PRpov<scrn>,<A/B value>,<layr>,<posv> $^{C\ L}_{R\ F}$

<posh> is the PIP horizontal positioning (in pixel from the top/left of the screen)

<posv> is the PIP vertical positioning (in pixel from the top/left of the screen)

- **Set the layer position**:

retrieved Syntax : <scrn>,<A/B value>,<layr>,<posh>PRpoh $^{L}_{F}$ Parameters are screen, previously A/B status, layer and the position in pixel.

And <scrn>,<A/B value>,<layr>,<posh>PRpov $^{L}_{F}$

<scrn> is the WebRCS screen number minus 1.

<A/B value> is the value retrieved in the previous command.

<layr> is a value representing the destination Layer. (0 for Layer A, 1 for B, 2 for C and 3 for D)

<posh> is the PIP horizontal positioning (in pixel from the top/left of the screen)

<posv> is the PIP vertical positioning (in pixel from the top/left of the screen)

Answer : PRpoh<scrn>,<A/B value>,<layr>,<posh> $^{C}_{R}$ $^{L}_{F}$

And PRpov<scrn>,<A/B value>,<layr>,<posv> $^{C}_{R}$ $^{L}_{F}$

<posh> is the PIP horizontal positioning (in pixel from the top/left of the screen)

<posv> is the PIP vertical positioning (in pixel from the top/left of the screen)

3 READING/CHANGING A LAYER SIZE

3.1.1 Usage

The "Layer Size read" or "Layer Size change" action is made of multiple commands, used to set parameters like destinations source, screen and layer. Further, the currently used "***A/B Preset***" must be read to set the required destination.

3.1.2 Summary of the commands sequence

- Get the current U/D status
- Select the next command based on Program/Preview and U/D status
- Get the A/B status with the previously selected command
- Read or Set the Layer size.

3.1.3 Detailed commands sequence

- **Get the current U/D status** : This command retrieves a status named **U/D** in order to be used in the next command.

  Syntax : <scrn>,GCsta $^{L}_{F}$

  <scrn> is the WebRCS screen number minus 1, legal values are from 0 up to 1, depending on mixer mode.

  Answer : GCsta<scrn>,<U/D value> $^{C\ L}_{R\ F}$

  <U/D value> is the returned U/D status value that will be used to select the next command.

- **Select the next command** : Depending on the Program/Preview destination and depending also on the previous U/D status, applies the following logic :

  IF ((*Program destination* AND *U/D status value is 0 or 2 or 4*) OR
  (Preview destination AND U/D status value is 1 or 3 or 5))
  THEN use ***GCpdn*** *command as next command*
  ELSE use ***GCpup*** *command as next command*

  or

Destination / U/D status	Program	Preview
0 or 2 or 4	***GCpdn***	***GCpup***
1 or 3 or 5	***GCpup***	***GCpdn***

- **Get the A/B status** : using the previously selected command, retrieve a status named **A/B** in order to be used in the next command.

Syntax 1 : <scrn>,GCpdn [L F]

<scrn> is the WebRCS screen number minus 1.

Answer 1 : GCpdn<scrn>,<A/B value> [C R L F]

<A/B value> is the returned A/B status value that will be used in the next command.

Syntax 2 : <scrn>,GCpup [L F]

<scrn> is the WebRCS screen number minus 1.

Answer 2 : GCpup<scrn>,<A/B value> [C R L F]

<A/B value> is the returned A/B status value that will be used in the next command.

- **Read the layer size**:

Parameters are screen, previously retrieved A/B status and layer.

Syntax : <scrn>,<A/B value>,<layr>,PRsih [L F]

And <scrn>,<A/B value>,<layr>,PRsiv [L F]

<scrn> is the WebRCS screen number minus 1.

<A/B value> is the value retrieved in the previous command.

<layr> is a value representing the destination Layer. (0 for Layer A, 1 for B, 2 for C and 3 for D)

Answer : PRsih<scrn>,<A/B value>,<layr>,<width> [C R L F]

And PRsiv<scrn>,<A/B value>,<layr>,<height> [C R L F]

<width> is the PIP width in pixel

<height> is the PIP height in pixel

- **Set the layer size**:

Parameters are screen, previously retrieved A/B status, layer and the size in pixel.

Syntax : <scrn>,<A/B value>,<layr>,<width>PRsih [L F]

And <scrn>,<A/B value>,<layr>,<height>PRsiv [L F]

<scrn> is the WebRCS screen number minus 1.

<A/B value> is the value retrieved in the previous command.

<layr> is a value representing the destination Layer. (0 for Layer A, 1 for B, 2 for C and 3 for D)

<width> is the PIP width in pixel

<height> is the PIP height in pixel

Answer : PRsih<scrn>,<A/B value>,<layr>,<width> C R L F

And PRsiv<scrn>,<A/B value>,<layr>,<height> C R L F

<width> is the PIP width in pixel

<height> is the PIP height in pixel