



Nirva Image Service

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Overview

The IMAGE service is a NIRVA external service that provides commands to flip, crop, resize and many other functions to manipulate image files.

Performance

The service is based upon a C++ library.

Installation

The IMAGE service is delivered as a NIRVA package and can be installed like any NIRVA service directly from the NIRVA configuration web site. Please see the NIRVA configuration chapter in the NIRVA user's guide for further information.

Configuration

There is no specific configuration.

Reference

This chapter gives the complete reference of all the IMAGE service commands.

Classes

Here are the available IMAGE service classes:

Class	Description
TRANSFORM	Image operation
INFO	Image information
CREATE	Image creation
COLOR_SPACE	Image color_profile_management

Error codes

The same error codes are shared with the four classes.

Class INFO, TRANSFORM, CREATE and COLOR_SPACE

Value	Description
101	Missing parameter
102	Loading image
103	Output format
104	Scale
105	Crop
106	Rotate
107	Flip

Value	Description
108	Saving image
109	Converting image
110	Image not valid

Commands

For each command, the reference gives the command name, the sources for which the command may be used, the command description, the eventual command permissions, the parameter list and the eventual list of objects created by the command.



The parameters described in this chapter are command specific parameters. For general parameters, please refer to the Nirva command syntax chapter.

The available sources are:

- Client for all Nirva client interfaces including Nirva client library (nvc).
- Web for commands from a web browser.
- Procedure for commands from a Nirva procedure.
- Service for commands from service to service

INFO class

This class is used to retrieve some information about the image file.

GET_INFO

IMAGE:INFO:GET_INFO

Source	Use Input Container	Use Output Container
Client		
Web		
Procedure	YES	YES
Service		

Description

This command gives some information about an image : width, height, size, and type.

Parameters

NAME Name of the NIRVA file object.

Permissions

None

Objects created

INFO This is a Nirva indstringlist object containing following keys:

- "HEIGHT" is the image height.
- "WIDTH" is the image width.
- "SIZE" is image size.
- "TYPE" is the image type (1 BMP, 2 GIF, 3 JPG, 4 PNG).
- "BPP" is the byte per pixel.
- "COLORS" 2, 16, 256; 0 for RGB images.

TRANSFORM class

This class is used to do some transformations such as scale and crop on a image file.

SCALE

IMAGE:TRANSFORM:SCALE

Source	Use Input Container	Use Output Container
Client Web Procedure Service	Yes	Yes

Description

This command scale an image. Be carefull with the image size. If the format parameter is not defined, the output format equals to the input format.

Permissions

None

Parameters

<i>IMAGE_IN</i>	Name of the in NIRVA file object
<i>IMAGE_OUT</i>	Name of the out NIRVA file object
<i>QUALITY</i>	0..100 quality value of the compression (use with jpg)
<i>WIDTH</i>	Width size in pixel
<i>HEIGHT</i>	Height size in pixel
<i>RATIO</i>	Float Value of the scale ratio. If a ratio is provided, we ignore width and height.
<i>FORMAT</i>	BMP, GIF, JPG, PNG or TIFF

Objects created

<i>RESULT</i>	This is a Nirva string object. The values are YES or NO.
<i>OUPUT_IMAGE</i>	This is a Nirva file object. The name is given using the <i>IMAGE_OUT</i> parameter.

CROP

IMAGE:TRANSFORM:CROP

Source	Use Input Container	Use Output Container
Client Web Procedure Service	Yes	Yes

Description

This command crops an image. If the format parameter is not defined, the output format equals to the input format. The starting point of the crop box is the top/left corner.

Permissions

None

Parameters

<i>IMAGE_IN</i>	Name of the in NIRVA file object
<i>IMAGE_OUT</i>	Name of the out NIRVA file object
<i>QUALITY</i>	0..100 quality value of the compression (use with jpg)
<i>X_OFF</i>	Left position in pixel of the crop box
<i>Y_OFF</i>	Top position in pixel of the crop box
<i>Width</i>	Width of the crop_box in pixel
<i>HEIGHT</i>	Height of the crop_box in pixel
<i>FORMAT</i>	BMP, GIF, JPG, PNG or TIFF

Objects created

<i>RESULT</i>	This is a Nirva string object. The values are YES or NO.
<i>OUTPUT_IMAGE</i>	This is a Nirva file object. The name is given using the <i>IMAGE_OUT</i> parameter.

ROTATE

IMAGE:TRANSFORM:ROTATE

Source	Use Input Container	Use Output Container
Client Web Procedure Service	Yes	Yes

Description

This command rotates an image. If the format parameter is not defined, the output format equals to the input format.

Permissions

None

Parameters

<i>IMAGE_IN</i>	Name of the in NIRVA file object
<i>IMAGE_OUT</i>	Name of the out NIRVA file object
<i>QUALITY</i>	0..100 quality value of the compression (use with jpg)
<i>ANGLE</i>	Rotate angle in degree (clock)
<i>FORMAT</i>	BMP, GIF, JPG, PNG or TIFF

Objects created

<i>RESULT</i>	This is a Nirva string object. The values are YES or NO.
<i>OUTPUT_IMAGE</i>	This is a Nirva file object. The name is given using the <i>IMAGE_OUT</i> parameter.

CONVERT

IMAGE:TRANSFORM:CONVERT

Source	Use Input Container	Use Output Container
Client Web Procedure Service	Yes	Yes

Description

This command converts an image to a specified format. Be careful, the conversion GIF to JPG may throw some bugs.

Permissions

None

Parameters

<i>IMAGE_IN</i>	Name of the in NIRVA file object
<i>IMAGE_OUT</i>	Name of the out NIRVA file object
<i>QUALITY</i>	0..100 quality value of the compression (use with jpg)
<i>FORMAT</i>	BMP, GIF, JPG, PNG or TIFF

Objects created*RESULT*

This is a Nirva string object. The values are YES or NO.

OUTPUT_IMAGE

This is a Nirva file object. The name is given using the IMAGE_OUT parameter.

MIRROR

IMAGE:TRANSFORM:MIRROR

Source	Use Input Container	Use Output Container
Client Web Procedure Service	Yes	Yes

Description

This command do the mirror of an image. If the format parameter is not defined, the output format equals to the input format

Permissions

None

Parameters*IMAGE_IN*

Name of the in NIRVA file object

IMAGE_OUT

Name of the out NIRVA file object

QUALITY

0..100 quality value of the compression (use with jpg)

FORMAT

BMP, GIF, JPG, PNG or TIFF

Objects created*RESULT*

This is a Nirva string object. The values are YES or NO.

OUTPUT_IMAGE

This is a Nirva file object. The name is given using the IMAGE_OUT parameter.

FLIP**IMAGE:TRANSFORM:FLIP**

Source	Use Input Container	Use Output Container
Client Web Procedure Service	Yes	Yes

Description

This command do the flip of an image. If the format parameter is not defined, the output format equals to the input format

Permissions

None

Parameters

<i>IMAGE_IN</i>	Name of the in NIRVA file object
<i>IMAGE_OUT</i>	Name of the out NIRVA file object
<i>QUALITY</i>	0..100 quality value of the compression (use with jpg)
<i>FORMAT</i>	BMP, GIF, JPG, PNG or TIFF

Objects created

<i>RESULT</i>	This is a Nirva string object. The values are YES or NO.
<i>OUTPUT_IMAGE</i>	This is a Nirva file object. The name is given using the IMAGE_OUT parameter.

CREATE class

This class is used to create a new image file from an existing image file.

FROM_IMAGE

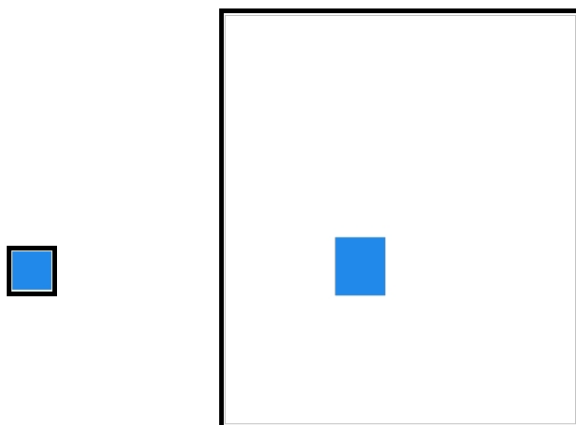
IMAGE:CREATE:FROM_IMAGE

Source	Use Input Container	Use Output Container
Client Web Procedure Service	Yes	Yes

Description

This command creates a new image based upon an image. We draw a transparent (or white if the output format is not PNG) image. And we paste the given image to a specified position.

In the example given below, we have a 50*50 blue square image. We create a 700*700 image and we paste our blue square at the position (500,150).



Permissions

None

Parameters

- IMAGE_IN* Name of the in NIRVA file object
- IMAGE_OUT* Name of the out NIRVA file object
- QUALITY* 0..100 quality value of the compression (use with jpg)
- FORMAT* PNG(default) or TIFF
- WIDTH* Width size of the new image
- HEIGHT* Height size of the new image
- TOP* Top position of the given image in the new image
- LEFT* Left position of the given image in the new image

Objects created

<i>RESULT</i>	This is a Nirva string object. The values are YES or NO.
<i>OUTPUT_IMAGE</i>	This is a Nirva file object. The name is given using the <i>IMAGE_OUT</i> parameter.

COLOR_SPACE class

This class is used to manage the color profile of an image.

CONVERT

IMAGE:COLOR_SPACE:CONVERT

Source	Use Input Container	Use Output Container
Client Web Procedure Service	Yes	Yes

Description

This commands converts an image to another format using the color space. We only deals with JPG and TIFF image files. Default *IN_PROFILE* is *UsWebCoatedSWOPP.icc* (a CMYK profile) and the Default *OUT_PROFILE* is *RGB_IE61966-21.icc* (a RGB profile)

Permissions

None

Parameters

<i>IMAGE_IN</i>	Name of the in NIRVA file object
<i>IMAGE_OUT</i>	Name of the out NIRVA file object
<i>QUALITY</i>	0..100 quality value of the compression (use with jpg)

FORMAT PNG, JPG or TIFF
IN_PROFILE Filepath to a specific icc profile
OUT_PROFILE Filepath to a specific icc profile
EMBEDED_PROFILE Yes or NO

Objects created

RESULT This is a Nirva string object. The values are YES or NO.

CHECK

IMAGE:COLOR_SPACE:CHECK

Source	Use Input Container	Use Output Container
Client Web Procedure Service	Yes	Yes

Description

This commands displays the color_space of an image We only deals with JPG and TIFF image files.

Permissions

None

Parameters

IMAGE_IN Name of the in NIRVA file object
PALETTE RGB or CMYK (it's also the name of the result object)
EMBEDED_PROFILE Yes or NO

Objects created

RESULT This is a Nirva string object. The values are TRUE or FALSE.

Formats and conversion

Formats

BMP, GIF, JPG,PNG, TIFF

Load formats

<i>Windows Bitmap</i>	bmp
<i>Graphics Interchange format</i>	gif
<i>Jpeg</i>	jpg, jpeg, jpe
<i>Portable Network Graphic</i>	png
<i>Tif</i>	tif, tiff

Save formats

<i>Windows Bitmap</i>	bmp
<i>Graphics Interchange format</i>	gif
<i>Jpeg</i>	jpg, jpeg, jpe
<i>Portable Network Graphic</i>	png
<i>Tif</i>	tif, tiff

Conversion (from – to)

<i>JPG</i>	JPG, BMP, GIF, PNG
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<i>BMP</i>	JPG, BMP, GIF, PNG
<i>GIF</i>	BMP, GIF, PNG
<i>PNG</i>	JPG, BMP, GIF, PNG

About the operations

Scale

A scale using a 0.50 ratio



Crop

A crop using X_OFF and Y_OFF equals to 5 . Width equals to 315 and height equals to 120px



Rotate

A rotation of 90 degrees.



Mirror



Flip

