# Projector User Guide

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**META FIDE**

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# 1 Introduction

## 1.1 What is Projector?

Projector is a productivity enhancer tool for DaVinci Resolve Studio 15. It automates creation of projects with complex bin structures. Projector also imports frequently used media like color bars, slate backgrounds, etc.

Projector is an ideal solution where a standard bin structure, standard nomenclature, and standard media assets are required for each new project.

## 1.2 Requirements

Projector requires DaVinci Resolve Studio 15 or above running on Linux, MacOS, or Windows 10. This user guide assumes users are familiar with the basic operation of DaVinci Resolve.

# 2 Installation and Setup

## 2.1 Installation and Removal

It's recommended you log in as a user with administrative privileges.

### 2.1.1 MacOS

Double click the installation package and follow the instructions.

To remove Projector from your system delete these folders:

```
/Applications/MetaFide/Projector.app

~/Library/Application Support/MetaFide/Projector
```

### 2.1.2 Windows 10

Double click the installation package and follow the instructions.

Use Add or Remove Programs to remove Projector from your system. To remove the configuration files delete this folder:

```
%AppData%\MetaFide\Projector
```

### 2.1.3 Linux

Unzip the installer. Open the terminal. Change directory to the location of the installer and execute:

```
sudo sh Projector.sh
```

To remove the application from your system execute:

```
sudo sh /opt/MetaFide/Projector/uninstall-Projector.sh
```

## 2.2 DaVinci Resolve Setup

Open the DaVinci Resolve menu and select Preferences. Click on the System tab. Under General, set the "External Scripting Using" to "Local."

# 3 Create a Project

## 3.1 Before You Start

Start DaVinci Resolve before you launch Projector. You must restart Projector any time you restart DaVinci Resolve.

Projector will fail to create a project if Resolve Project Settings or Resolve Preferences are open.

## 3.2 Create Your First Project

Enter a new project name in the Projector's Project Name field. Set the desired frame rate and resolution. Click the "Create" button to create your project.

You have just created a Resolve project using the default project template.

# 4 Templates

## 4.1 Introduction to Templates

The power of Projector lies in using your own templates. A template file can contain the names of the bins you want to create, programmatic tokens, and directives for media imports.

For example, you can have a template defining your facility standard bin layout and frequently used media imports. You can also create a library of client specific templates that build projects and import client specific media assets like logos and graphics toolkits.

Custom templates can generate date and time tagged bins and automatically create sequentially numbered bins.

## 4.2 Create a Custom Template

The bin tree Projector created in 3.2 Create Your First Project is complex, but it may not meet your needs. However, you can make our own templates.

The default template is a good starting point for creating a custom template. Go to Projector's File menu and select Save Default Template.

Use a plain text editor like Notepad or TextEdit to open the template you saved. Edit and save your modified template.

For a detailed explanation of the template format see 5. Template Examples.

## 4.3 Load a Custom Template

Go to Projector's File menu and select Load Template. Alternately, click the "Browse" button to load a custom template. Click the "Create" button when ready to create a project.

# 5  Template Examples

## 5.1 Template Structure

Templates are structured as standard JSON files. When writing more complex templates you may line break and indent the lines to improve legibility.

When editing templates you must make sure to close all brackets and curly braces. Either  "/" or "\\" are acceptable slash styles for Windows paths.

Bin names can contain Non-English Unicode characters encoded as UTF-8.

## 5.2 Minimal Template

A minimal template creates a single bin and imports no media:

```
{ "Master": ["My Bin"] }
```

## 5.3 Multiple Bins

### 5.3.1 Manual Bin Sequence

Create any number of bins by separating them with a comma:

```
{ "Master": ["Bin One", "Bin Two", "Bin Three"] }
```

### 5.3.2 Automatic Bin Sequence

To automatically create sequentially numbered bins specify a multiplier token "*n" indicating the maximum bin count. The number of digits sets the zero padding.

Create bins called: "001 My Bin", "002 My Bin", and "003 My Bin":

```
{ "Master": ["003* My Bin"] }
```

Create bins called: "My Bin1" and "My Bin2":

```
{ "Master": ["My Bin*2"] }
```

## 5.4 Time and Date Stamps

To create a bin called "The Year Is 2019" use:

```
{ "Master": ["The Year Is |%y"] }
```

To create a bin stamped with year, month, and day  "20190105 My Bin" use:

```
{ "Master": ["%y%m%d| My Bin"] }
```

Available date and time tokens are:

- %y year

- %m month

- %d day

- %h hour

- %mn minute

- %s second

## 5.5  File Substitution

You can substitute the file token with the contents of another plain text file.

If there is a file called bins.txt saved on the desktop and it contains:

Bin One

Bin Two

Bin Three

This template will create bins called: "Bin One", "Bin Two", "Bin Three", and "Bin 4":

```
{ "Master": ["@f|~Desktop/bins.txt", "Bin 4"] }
```

## 5.6 Nested Bins

Projector supports one level of bin nesting.

This template example creates two top level bins called "My Bin 1" and "My Bin 2." The latter bin contains three nested bins:

```
{

    "Master": [

        "My Bin 1",

        {

            "My Bin 2": [

                "Nested Bin 1",

                "Nested Bin 2",

                "Nested Bin 3"

            ]

        }

    ]

}
```

## 5.7 Import Files

Use the Media block of the template to specify file paths for import to bins. You can import individual files or contents of entire directories.

### 5.7.1 Import Individual Files

List any number of comma separated files to import to "My Bin":

```
{

    "Master": [

        "My Bin"

        ],

    "Media": [

        {

            "My Bin": [

                "D:/SomeFolder1/SomeFile.mov",

                "D:/SomeFolder2/SomeFile2.jpg"

                ]

        }

        ]

}
```

### 5.7.2 Import Contents of Multiple Folders
List any number of comma separated folders to import to "My Bin":

```
{

    "Master": [

        "My Bin"

        ],

    "Media": [

        {

            "My Bin": [

                "D:/SomeFolder1",

                "D:/SomeFolder2"

                ]

        }

        ]

}
```

# 6 Advanced Operation

## 6.1 Command Line Operation

Projector can run in a non-GUI command line mode. You can integrate it into your scripted pipeline.

For example, an automation script could discover paths to newly rendered CG shots, generate a template file, and call Projector to create a project and import the shots based on the custom template.

DaVinci Resolve must be running when executing projector from the command line. The Project Settings or DaVinci Resolve Preferences must be closed when creating a project. Projector will first save any currently loaded DaVinci Resolve project before creating a new project.

### 6.1.1 Command Line Syntax

```
Projector -p <ProjectName> -f <fps> -r <X>x<Y> -t <template>
```

- -p      project name

- -f      frames per second

- -r      horizontal x vertical resolution, i.e. 1920x1080

- -t      template file

The -f argument accepts the DaVinci Resolve standard frame rates only.

### 6.1.2 Command Line Example in MacOS

You can execute from the default location:

`/Applications/MetaFide/Projector.app/Contents/MacOS/Projector`

You can also create a symlink in a more convenient directory.

Assumptions:

- a symlink "Projector" is in the current directory

- a template file t.json is on the current user's Desktop

To create "MyProject":

```
Projector –p MyProject –f 23.976 –r 1920x1080 –t ~/Desktop/t.json
```

# 7  Known Issues

## 7.1 All Platforms
- Media paths and file names in templates are case sensitive
- Projector requires DaVinci Resolve to be running
- DaVinci Resolve Project Settings or DaVinci Resolve Preferences must be closed when creating a project
- You must restart Projector any time you restart Resolve

## 7.2 Linux
- Save Default Template dialog does not automatically add .json extension
- Media storage location containing media for import must be defined in DaVinci Resolve Preferences

## 7.3 Windows
- There is no reporting in the CLI console, but a special version with reporting is available upon request