EB GUIDE

Installation of EB GUIDE GTF on Raspberry Pi

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1. Installation of EB GUIDE GTF on Raspberry Pi

The EB GUIDE GTF SDK for Raspberry Pi OS (software development kit) is used to distribute and install applications and other middleware on Raspberry Pi devices.

1.1. System requirements

The EB GUIDE GTF SDK for Raspberry Pi OS version that is currently released for EB GUIDE GTF is designed to run on a Raspberry Pi device.

Table 1. System requirements

Platform	Raspberry Pi version 4
Operating system	Raspberry Pi OS (previously called Raspbian)
	Recommended: Desktop version
	For more information, see https://www.raspberrypi.org/downloads/raspberry-pi-os/.

1.1.1. Required libraries

To run the EB GUIDE GTF SDK for Raspberry Pi OS, install additional libraries.

Table 2. Required libraries

`mesa`	A graphics library that provides a generic OpenGL implementation for rendering graphics.
	To install, execute the following command on the command line:
| | ```
sudo apt-get -y install mesa-utils
``` |
| `libxi` (optional) | A library that is used for multi-touch support on Raspberry Pi OS. |
| | To install, execute the following command on the command line: |
| | ```
sudo apt-get -y install libxi-dev
``` |

1.1.2. Creating symbolic links

EB GUIDE GTF SDK for Raspberry Pi OS uses the libEGL and libGLESv2 for displaying graphics.

The following instructions show you how to enable EB GUIDE GTF to find the latest library versions by creating symbolic links.

	Creating symbolic links

Step 1

Start the Raspberry Pi device and open a command line.

Step 2

On the command line, navigate to the folder where libEGL and libGLESv2 are stored.

On the Raspberry Pi image the path is as follows:

```
cd /usr/lib/arm-linux-gnueabihf
```

Step 3

On the command line, create a symbolic link to the latest version of libEGL:

```
sudo ln -s libEGL.so.1 libEGL.so
```

Step 4

On the command line, create a symbolic link to the latest version of libGLESv2:

```
sudo ln -s libGLESv2.so.2 libGLESv2.so
```

1.2. Features of the EB GUIDE GTF SDK for Raspberry Pi OS

Table 3. Features of the EB GUIDE GTF SDK for Raspberry Pi OS

Feature	Description
Multi-touch support	EB GUIDE GTF supports up to ten fingers for multi-touch. The number of supported fingers may be limited by the touch-input device that is connected to the Raspberry Pi device.
Key handling	EB GUIDE GTF processes 16-bit UTF key mapping codes.

1.3. Running EB GUIDE GTF SDK for Raspberry Pi OS

	Running EB GUIDE GTF SDK for Raspberry Pi OS

Prerequisite:

- EB GUIDE Studio is installed on your PC.

- An EB GUIDE Studio model is exported. For instructions on how to export models, see the EB GUIDE Studio user guide.

- All input devices that are necessary to run the EB GUIDE model, are connected to the Raspberry Pi device.

Step 1

On your PC, run `<storage_path>/sdk_raspbian_buster_32.exe`.

The folder `$GTF_INSTALL_PATH/platform/raspbian_buster_32` is created.

Step 2

Using an USB stick or an Ethernet connection, copy the exported EB GUIDE model and the installation files from `$GTF_INSTALL_PATH/platform/raspbian_buster_32/bin` to the target Raspberry Pi device.

For this instructions we use the folder `/home/pi/guide/bin`.

Step 3

To add the EB GUIDE GTF shared libraries to the search path environment variable, on the Raspberry Pi go to the folder `/home/pi/guide/bin`:

```
cd /home/pi/guide/bin
```

and execute the command:

```
export LD_LIBRARY_PATH=.
```

Step 4

Provide execution rights to the `GtfStartup` binary, in the command line execute `chmod +x GtfStartup`.

Step 5

To run EB GUIDE GTF with your EB GUIDE model, execute `./GtfStartup <path_to_exported_model>/model.json`.

For more information on how to run EB GUIDE GTF, see the EB GUIDE GTF user guide chapter "Run modes of EB GUIDE GTF" .