Wayland Linux BSP: Prerequisites

Hardware: Raspberry Pi 5 Board

CGI Studio has been tested on the **Raspberry Pi 5** Board.

CMake

In order to build Candera, the Meta build system CMake needs to be installed with at least version mentioned here.
CMake is able to create the cross compilation make files that can be used with GCC (cross-compile) compiler.

Linux Toolchain (BSP)

- SD card image was prepared with Raspberry Pi Imager.
- Raspberry Pi OS based on Debian Trixie was tested with a Debian Trixie build machine.
  - Install crossbuild-essential-arm64

```
su
apt-get -y update && \
apt-get -y install crossbuild-essential-arm64
```

  - Make the SD card accessible in your build machine.
    Copy the /usr/lib and /usr/Include folders from the SD card to your build machine.
    This can also be done with e.g. scp.

```
#find the mount point of the SD card created with Raspberry Pi Imager
su
mkdir /opt/raspberry
mkdir /opt/raspberry/sysroot64
mkdir /opt/raspberry/sysroot64/usr
cd /opt/raspberry/sysroot64/usr
```

```
cp -ar <mount point of the sd card>/usr/lib  <mount point of the sd
card>/usr/include .
```

> SD Card image, SDK and cross-compiler/s are not part of the delivery and have to be provided by the customer.

Hardware: NXP i.MX8QMMEK Board

CGI Studio has been tested on **NXP i.MX8QMMEK** board.

CMake

In order to build Candera, the Meta build system CMake needs to be installed with at least version mentioned here.
CMake is able to create the cross compilation make files that can be used with GCC (cross-compile) compiler.

Linux Toolchain (BSP)

- Linux version 5.4.3-lts-lf-5.4 (GCC version 9.2.0), Poky 5.4.3 (Zeus) was used to test this release with Weston 7.0.0 (Wayland 1.17.0).
- SD card image and SDK was prepared following the NXP’s Linux user guide.
- Graphic driver: Vivante (OpenGL ES 2.0)

> SD Card image, SDK and cross-compiler/s are not part of the delivery and have to be provided by the customer.

Known Limitations

In case open source graphic driver is used (e.g. Etnaviv) following limitations could occur due to driver limitations:

- issue with shader/s due to limited number of vectors

- MSAA was not supported

Hardware: STM32MP157C-DK2 board

CGI Studio has been tested on STM32MP157C-DK2 board.

CMake

In order to build Candera, the Meta build system CMake needs to be installed with at least version mentioned here.
CMake is able to create the cross compilation make files that can be used with GCC (cross-compile) compiler.

Linux Toolchain (BSP)

- Linux version 5.10.10 (GCC version 9.3.0), ST OpenSTLinux - Weston - (A Yocto Project Based Distro) 3.1-openstlinux-5.10-dunfell-mp1-21-03-31 (dunfell) was used to test this release with Weston 8.0.0 (Wayland 1.18.0).
- SD card image and SDK was prepared following the STM's Linux user guide.
- Graphic driver: Vivante (OpenGL ES 2.0)

> SD Card image, SDK and cross-compiler/s are not part of the delivery and have to be provided by the customer.

Known Limitations

In case open source graphic driver is used (e.g. Etnaviv) following limitations could occur due to driver limitations:

- issue with shader/s due to limited number of vectors
- MSAA was not supported

Hardware: NXP i.MX 8MN board

CGI Studio has been tested on NXP i.MX 8MN board.

CMake

In order to build Candera, the Meta build system CMake needs to be installed with at least version mentioned here.
CMake is able to create the cross compilation make files that can be used with GCC (cross-compile) compiler.

Linux Toolchain (BSP)

- Linux version 5.4.70 (GCC version 9.2.0), Poky 5.4 (Zeus) was used to test this release with Weston 9.0.0 (Wayland 1.18.0).
- SD card image and SDK was prepared following the boards user guide.
- Graphic driver: Etnaviv (OpenGL ES 3.0)

> SD Card image, SDK and cross-compiler/s are not part of the delivery and have to be provided by the customer.

Known Limitations

In case open source graphic driver is used (e.g. Etnaviv) following limitations could occur due to driver limitations:

- issue with shader/s due to limited number of vectors
- MSAA was not supported

Hardware: NXP i.MX 8MM board

CGI Studio has been tested on NXP i.MX 8MM board.

CMake

In order to build Candera, the Meta build system CMake needs to be installed with at least version mentioned here.
CMake is able to create the cross compilation make files that can be used with GCC (cross-compile) compiler.

Linux Toolchain (BSP)

- Linux version 5.4.70 (GCC version 9.2.0), Poky 5.4 (Zeus) was used to test this release with Weston 9.0.0 (Wayland 1.18.0).
- SD card image and SDK was prepared following the boards user guide.

- Graphic driver: Etnaviv (OpenGL ES 2.0)

> SD Card image, SDK and cross-compiler/s are not part of the delivery and have to be provided by the customer.

Known Limitations

In case open source graphic driver is used (e.g. Etnaviv) following limitations could occur due to driver limitations:

- issue with shader/s due to limited number of vectors
- MSAA was not supported

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