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# RZ/G Verified Linux Package for 64bit kernel

## Version 1.0.5-RT

R01TU0283EJ0103

Rev. 1.03

### Patch application guide

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Aug. 31, 2020

#### Introduction

This document describes the contents of the “diff” files of RZ/G Verified Linux Package for 64bit kernel (hereinafter referred to as “VLP64”) and instructions to use them.

Please read the “Release Note” of VLP64 v1.0.5-RT carefully before using this document.

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## 1. Release Items

VLP64 is delivered by the files listed in **Table 1** Table 1. RZ/G Verified Linux Package. A develop environment of VLP64 v1.0.3-RT can be changed to that of VLP64 v1.0.5-RT by applying the patch files included in diff files without downloading basic packages.

**Table 1. RZ/G Verified Linux Package**

### Diff files for VLP64 v1.0.3-RT users

File	Explanation
r01tu0283ej0103-rz-g.pdf	This document
v103rt-to-v105rt_eva.patch.tar.gz (Evaluation version) v103rt-to-v105rt_pro.patch.tar.gz (Product version)	Diff files of Yocto recipes compared with VLP64 v1.0.3-RT and a new Multimedia package
v103rt-to-v105rt.oss_packages.7z	Diff file of OSS packages compared with VLP64 v1.0.3-RT

### Basic packages

File	Explanation
rzg2_bsp_eva_v105rt.tar.gz (Evaluation version) rzg2_bsp_pro_v105rt.tar.gz (Product version)	Yocto recipe packages (including Multimedia package)
oss_pkg_v105rt.7z.001 (500MB)    oss_pkg_v105rt.7z.009 (500MB) oss_pkg_v105rt.7z.002 (500MB)    oss_pkg_v105rt.7z.010 (500MB) oss_pkg_v105rt.7z.003 (500MB)    oss_pkg_v105rt.7z.011 (500MB) oss_pkg_v105rt.7z.004 (500MB)    oss_pkg_v105rt.7z.012 (500MB) oss_pkg_v105rt.7z.005 (500MB)    oss_pkg_v105rt.7z.013 (500MB) oss_pkg_v105rt.7z.006 (500MB)    oss_pkg_v105rt.7z.014 (500MB) oss_pkg_v105rt.7z.007 (500MB)    oss_pkg_v105rt.7z.015 (245MB) oss_pkg_v105rt.7z.008 (500MB)	Open source packages (Divided files)

### Optional files for HTML5 (Gecko) environment

File	Explanation
rzg2_bsp_gecko_v105rt.tar.gz	Yocto recipe packages for HTML5
oss_pkg_gecko_v105rt.7z.001 (500MB) oss_pkg_gecko_v105rt.7z.002 (500MB) oss_pkg_gecko_v105rt.7z.003 (500MB) oss_pkg_gecko_v105rt.7z.004 (316MB)	Open source packages for HTML5 (Gecko 68)

### Documents

File	Explanation
r01tu0277ej0105-rz-g.pdf	Release Note
r01tu0311ej0101-rz-g.pdf	Release Note for HTML5
r01tu0278ej0105-rz-g.pdf	Component list

## 2. Patch Application Guide

This section explains how to prepare a clean environment of VLP64 v1.0.3-RT and update it to VLP64 v1.0.5-RT. It is recommended to prepare and use a clean new environment, but if the environment prepared with VLP64 v1.0.3-RT is being used, it can also be updated with the steps (2) and (4) below. In this case, it is highly recommended to backup whole environment before updating them.

In this release, the version of HTML5 (Gecko) is upgraded from Gecko 60 to Gecko 68, so the build environment is very different. If you build Linux BSPs with a GUI Framework of HTML5, please refer to “RZ/G Verified Linux Package for 64bit kernel Version 1.0.5-RT Release Note for HTML5” and prepare a clean environment of VLP64 v1.0.5-RT.

**Copy all files obtained from Renesas into your home directory prior to the steps below.**

### (1) Create a working directory (user\_work) at your home directory and decompress Yocto recipe package of v1.0.3-RT

```
$ mkdir ~/user_work
$ cd ~/user_work
$ tar xvf ~/rzg2_bsp_eva_v103rt.tar.gz
```

The name and the place of the working directory can be changed, as necessary. Please replace “*eva*” with “*pro*” for the product version.

Note) In case updating existing environment, please revert the patch which enables HDMI with below command if necessary.

```
$ patch -R -p1 < directory/0001-BSP-1.0.3-RT-add-support-HDMI.patch
```

Please replace “*directory*” to the path to the directory which stores the patch file.

### (2) Apply patch files to Yocto recipes

```
$ cd ~/user_work
$ tar xvf ~/v103rt-to-v105rt_type.patch.tar.gz
$ patch -p1 < v103rt-to-v105rt.patch
```

Please replace “*type*” to “*pro*” or “*eva*”

### (3) Decompress OSS files of v1.0.3-RT to “build” directory

```
$ cd ~/user_work
$ mkdir build
$ cd build
$ 7z x ~/oss_pkg.7z.001 (*1)
```

(\*1) All OSS packages will be decompressed at once with this '7z' command. Please place all oss\_pkg.7z files in the same directory before running this '7z' command. 7zipped files are not able to decompress individually.

#### (4) Add OSS files

Remove old files.

```
$ cd ~/user_work/build/oss_packages
$ rm -rf git2_salsa.debian.org.debian.ca-certificates.git.tar.gz \
git2/github.com.OP-TEE.optee_client.git \
git2/github.com.OP-TEE.optee_os.git \
git2/github.com.renesas-rcar.arm-trusted-firmware.git \
git2/github.com.renesas-rcar.optee_os.git \
git2/github.com.renesas-rz.renesas-u-boot-cip.git \
git2/github.com.renesas-rz.rzg2_flash_writer.git \
git2/github.com.ystk.debian-openssl.git \
git2/salsa.debian.org.debian.ca-certificates.git
```

Add new files.

```
$ cd ~/user_work/build
$ 7z x ~/v103rt-to-v105rt.oss_packages.7z
```

Copy the compressed OSS diff file to home directory and decompress new files.

#### (5) Replace Multimedia Package

Remove old files.

```
$ cd ~/user_work
$ rm -rf ./proprietary
$ tar xvf ~/rzg2_bsp_type_v105rt.tar.gz proprietary
$ rm ~/rzg2_bsp_type_v105rt.tar.gz
```

Please replace “*type*” to “*pro*” or “*eva*”

#### (6) Build new BSP

Now it is ready to build BSP. Please build it according to the Release Note section 3.1. Note that the below steps in the section 3 of the Release Note is not necessary. These steps overwrite your environment.

- (1) Create a working directory (user\_work) at your home directory, and decompress Yocto recipe package
- (5) Decompress OSS files to “build” directory

## Website and Support

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