KPR Simulator on Linux

1. Overview

KPR simulator on Linux is implemented with Gtk3.0 or beyond and Glib, which actually run as a standalone desktop GUI application to simulate the KPR application on target devices.

2. Build Environment

Since we build the KPR application with Linux Simulator on Linux Desktop, and it will include and link some GNU and GTK lib. So if you want to build a KPR application that can be run in Linux Simulator, there should have some prerequisites on your machine.

If your Linux distribution is using APT package management system, you can type as follow:

1. Typing “apt-cache search libgtk” in terminal, you should find the develop library about GTK+ version 3, such as “libgtk-3-dev” on Ubuntu. Currently our linux simulator is based on at least GTK3.0, so please make sure you find the gtk lib whose version is 3.0 or beyond.
2. Install the dev library and the system should install dependencies automatically, typing command as follow:
    i. sudo apt-get install libgtk-3-dev
3. In additional, if you are first time building fsk on Linux, you have to install libasound, typing command as follow:
    i. sudo apt-get install libasound2-dev
    ii. sudo ln -s /usr/include/freetype2 /usr/include/freetype (Since we use freetype in fsk’s build file, but many current linux system adopt freetype2)

If your Linux distribution is using other package management system such as RPM/YUM…You can execute steps as above two, just need to replace the corresponding package manage command, such as “yum search/yum install”.

And, because the gtk lib has different name in different Linux Distribution Package Manager, we can’t list all possible name and distribution here. So please use the package manage command to search the corresponding gtk development lib and install it under your Linux machine.

Taking Fedora20 as an example here:

1. Typing “yum search gtk” in terminal, you will find “gtk3-devel.i686” for Fedora.
2. Typing “sudo yum install gtk3-devel.i686” to install the gtk3.0 dev library. If your account is not in the sudoers file, please switch to use root account.

3. Build Application

We can only use kprconfig tool to build application, so please enter command as follow, we take the application “balls” as an example:

Enter into the application “balls” directory under kinoma/kpr/application, then input,

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kprconfig -p linux/gtk -m
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Make sure the executable tool “kprconfig” is in your system environment, or give the full path about it.