Rockchip User Guide Bug System

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Preface

Overview

Rockchip Bug System (redMine) In order to better serve you, this guide records the problem processing process and status, convenient for both sides to track at the same time, so that the problem is more timely and efficient. Follow-up specific technical questions, technical consultation, etc., need you to submit to this Bug system, Rockchip technical support team will promptly distribute, process and track the problem.

Product Version

Chipset
Rockchip for all platforms

Intended Audience

This document (this guide) is mainly intended for:

Technical support engineers

Software development engineers

Revision History

Version	Author	Date	Change Description
V1.0.0	LB	2017-12-27	Initial version
V1.0.1	LB	2020-04-28	Added search function
V1.0.2	LB	2023-03-24	Update the application process
V1.1.0	LB	2023-07-28	Update the format

Contents

1. Operating manual

1.1 Application flow

The Rockchip redmine system accesses the website: https://redmine.rock-chips.com/. The redmine account will now be automatically created by the Rockhip system, and the application process is as follows:

SDK Application flow

Start

Fill in redMine
application Form

Email to RK
Business

Business agreement
completed

YES

NO

Business validation
process corresponding to RK
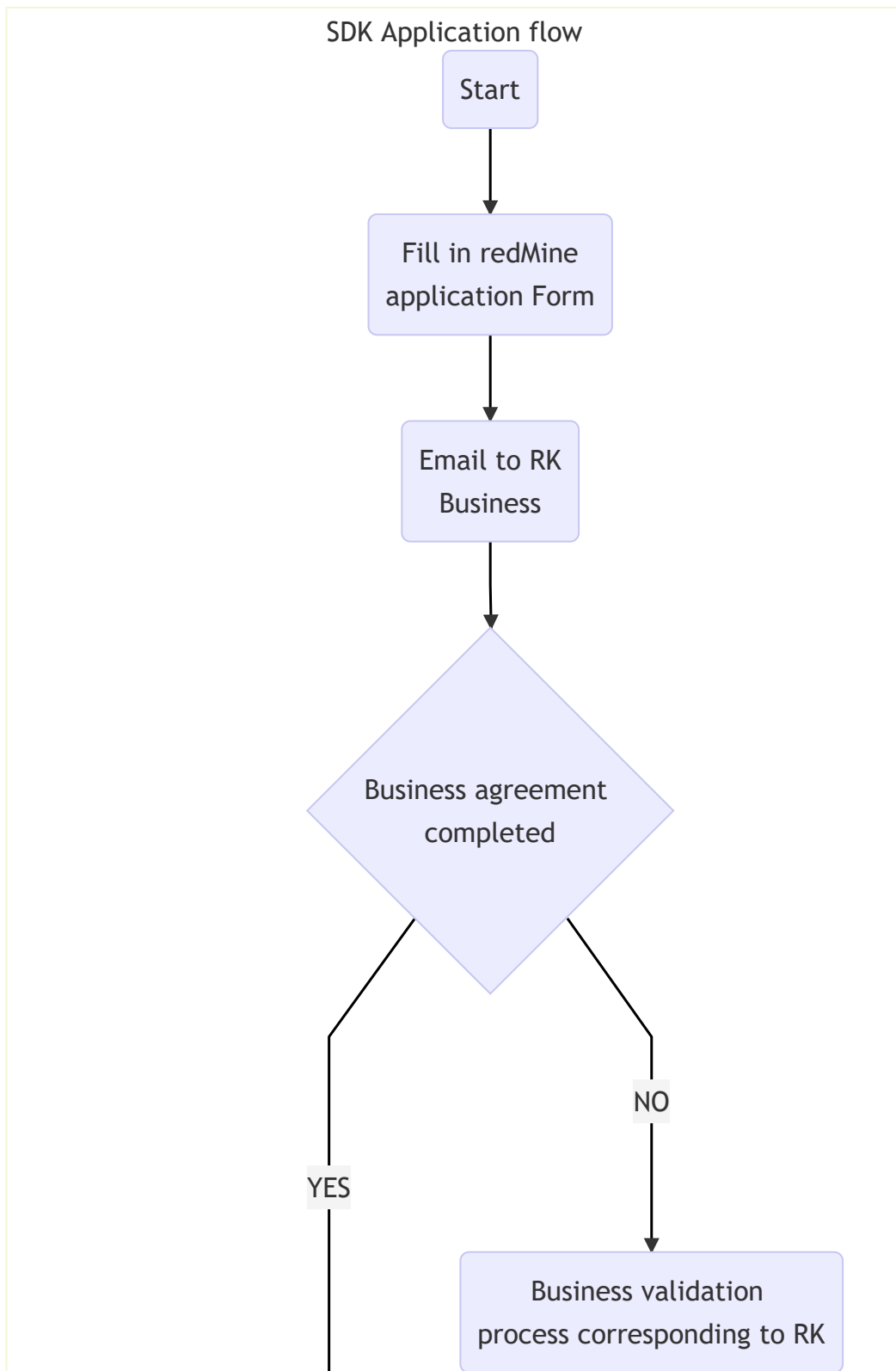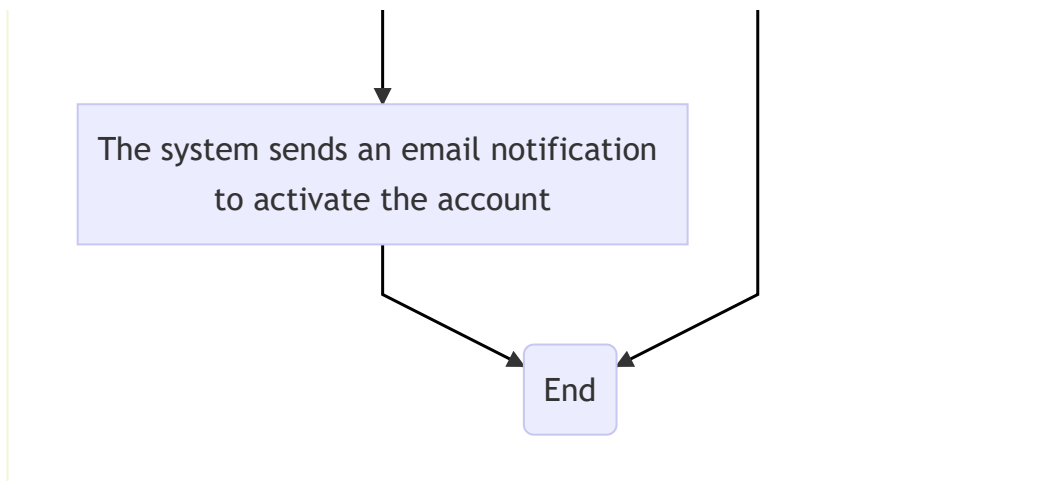
According to Rockchip regulations, a user can only apply for one redmine account, and multiple redmine accounts can be opened according to special circumstances. For details, please communicate with the corresponding business or interface person of Rockchip to help apply in the internal part of Rockchip, and it can be opened after approval. For example: you have more Rockchip platform projects, or your department is large and relatively independent, which affects the inconvenient communication between us and other reasons.

1.2 Login method

After you complete the above business process, the Rockchip system will send an email notification "Rockchip Redmine account creation success" as follows:

This redMine is created by our Rockchip, and the email contains your redmine account, initial password and associated email address. You can log in directly through your redmine address.

1.3 Activate account

Once you open the redmine link, use Rockchip to activate your account by providing your login name and initial password.

You have activated and logged in to your redmine through these steps, and then you can start your redmine journey.

1.4 Submit question

After your account is activated, you can log in to Rockchip's redmine system and submit questions. The steps to submit a question are as follows:

1.4.1 Select the FAE projec

1.4.2 Fill in the question content

1.5 Specification of attribute

Tracking : Contains defect, feature, support, and test. Please fill in the field according to the actual problem category.

Topic: Briefly describe the problem. Name method: chip name +SDK version + Problem summary description. For example, RK3399RK3399_ANDROID7.1_TABLE-SDK_V1.00 xx does not work.

Description : Please describe the problem in as much detail as possible: detailed steps of anomaly recurrence, detailed data of comparison, target data, status, preliminary conclusions of analysis, etc. To provide log, screenshots, on-site photos or videos, etc. in the attachment, this cannot exceed 10M. If more than, need to through other ways (or web disk link, etc.) to our Rockchip analysis;

State : 7 states including New, Confirmed, Feedback, Resolved, Closed, Hungup and Reopen are respectively:

```
New: The question you submitted;

Confirmed: The problem has been assigned to the engineer to follow up, and the
engineer is dealing with the problem.

Feedback: Engineers provide feasible suggestions on the problem, not sure whether
you accept or not;

Resolved: The engineer believes that the issue has been resolved and awaits your
verification.

Closed: The problem is verified and solved. The problem is closed.

Hungup: There is no very effective solution to the problem;

Reopen: The problem is resolved and reappears later and needs to be reopened.
```

Priority: Divided into low, normal, emergency, immediate;

Target version : Please select the SDK version number used for this project;

RK chip dealer : the specific agent/distributor, if not clear, please consult the relevant person in charge;

Product type : Specific product type;

component_fae : Select a module. If no, select others.

Probability : probability that this problem occurs;

Seriousness : Severity of the problem, including Fatal, Serious, Bad, and Warning.

problem-type : common Problem, special problem, general problem, simple problem;

Contact information name & tel. : Please fill in the contact information of the engineer who submitted this problem, so as to further communicate and confirm the information and status of the problem;

Probability of occurrence probability of occurrence;

After you submit the problem, Rockchip engineers will handle it. After the problem is handled, please be sure to close the problem in time and update the problem status to Closed. If there are too many "unresolved" issues (e.g., problem status after you haven't updated the Rockchip solution), it will affect the speed of processing your problem.

1.6 Search function

Rockchip has extracted the common problems in the Bug system, so that you can search and learn from the problems that the Rockchip platform has handled at any time. The link is: https://redmine.rock-chips.com/projects/redmine-issues/issues

1.7 Hardware review

The first project you import into the Rockchip platform or the key project confirmed by Rockchip business, **strongly recommend that Rockchip hardware cooperate with the review of this project schematic and PCB Layout (these two files are required to provide original drawings, so that the review engineer can improve work efficiency and prevent omissions)** In the case of no special requirements of the project, Rockchip is only

checked once in principle (schematic and PCB Layout are reviewed together). If you have special needs, please send an email to the corresponding Rockchip interface person or business, and ask them to push the corresponding staff to cooperate.

It is strongly recommended that you use the DDR template provided by Rockchip (direct copy without any modification) , the DDR template provided is simulated, and has been produced by customers in large quantities, to ensure the stability and reliability of the system. Any changes must be submitted to Rockchip for confirmation, and contact Rockchip Business coordination resource simulation in order to affect the progress of your project development.

If you cannot provide the original documents of schematic diagram and PCB Layout for special reasons such as confidentiality, you can arrange the engineer to bring the drawings to Rockchip office for on-site review (This appointment is made in advance: because the personnel who cooperate with the review of drawings may be assigned to Shenzhen, Fuzhou or Shanghai).

2. Multi-user

2.1 Brief introduction of the function

Rockchip has extended the functionality of redmine system. A redmine account can be used by multiple people at the same time, so that multiple mailboxes can receive a Bug update information at the same time.

2.2 Usage

Here is how to add multiplayer mode:

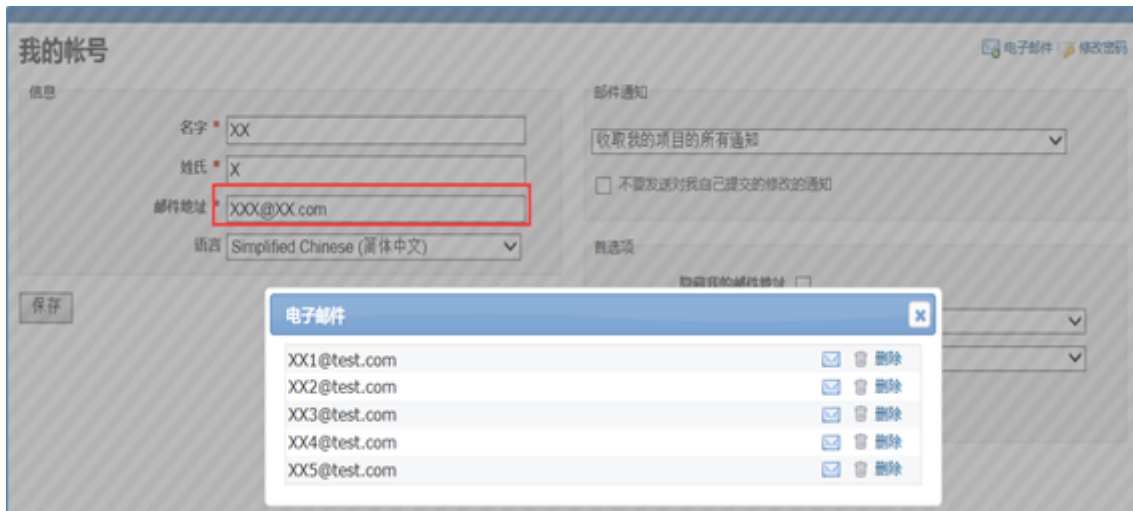a. In the upper right corner of any interface of redmine, click "My account";

b. In the upper right corner of the "My Account" interface, click "Email";

c. Then the following interface will pop up, please add email, click "add" to save.

d. After the mailbox is added successfully, in addition to obtaining the primary mailbox information in the "mailbox address", you can also obtain the sub-mailbox information through the "email";

e. If the email user leaves the company, please delete it from the list in time to prevent it from continuing to know the progress of your project and occupying the mailing list

3. Data description on the system

In this system, Rockchip would put some platform data also on redmine and FTP, convenient even if you refer to:https://redmine.rockchip.com.cn/projects/fae/documents. The main platform technical brief, platform key materials (Flash, DDR, eMMC, WiFi and Camera) support list, etc. :

3.1 FTP server

In the FTP, FTP address: ftp://www.rockchip.com.cn **account name**: rkwifi **password**: Cng9280H8t) store the common information of the platform, as follows:

- The list of WiF-related support, drivers, and authentication tools can be obtained through this ftp. When debugging WiFi/BT, you can refer to the attachment analysis to troubleshoot related problems; (01-Wifi, 02-BT, 11-Linux platform)
- Personalized function patches; (05-patch Patch: multi-window, color temperature adjustment, multi-U disk multi-partition mounting, echo cancellation noise reduction patch, HDMI_IN, a2dpsink Bluetooth speaker patch, etc.)
- Application source code; (06- All kinds of source code: player, pcba test, stress test, Wifidisplay, OtaUpdate, etc.)
- Chip datasheet for mainstream platforms; (08-Datasheet)
- Information on the Linux platform; (11-Linux platform: including DPDK, Linux platform support WiFi and BT and other application source code)
- Google security patches for Android platform; (10-Security_Patch)
- RKIVE hardware acceleration module documentation and patch; (12-Rockchip_RKIVE_Simulator_release)
- Mainstream platforms support the corresponding SDK version and corresponding SDK release documents; (13-Rockchip_SDK_Release_Note)

3.2 redmine document bar

Document on redmine bar (https://redmine.rock-chips.com/projects/fae/documents), which lists the key material list, the SDK support platform support list, the platform on which patch and technical briefing, see below:

3.2.1 List of hardware reference design versions

Redmine access path:https://redmine.rock-chips.com/documents/116, which includes hardware design versions and DDR templates and versions supported by various chip platforms. If you get a resource lower than this version, please request the latest version from the RK profile window.

3.2.2 Technical Information Brief

The redmine access path is: https://redmine.rock-chips.com/projects/fae/boards/6

3.2.3 Patch release

The redmine access path is: https://redmine.rock-chips.com/projects/rockchip_patch/issues

3.2.4 Nand Flash support list of key materials

The redmine access path is:https://redmine.rock-chips.com/documents/46

3.2.5 DDR Support list of key materials

The redmine access path is:https://redmine.rock-chips.com/documents/49

3.2.6 eMMC Support list of key materials

The redmine access path is:https://redmine.rock-chips.com/documents/50

3.2.7 Key materials WiFi module support list

The redmine access path is: https://redmine.rockchip.com.cn/documents/52, the support list associated with Wi-Fi, driver, authentication tools, etc.

3.2.8 Recommended list of key materials Camera

The redmine access path is: https://redmine.rockchip.com.cn/documents/53

3.2.9 Supported versions and release documents of the SDK

The redmine access path is :https://redmine.rock-chips.com/documents/117

Your first version of the hardware key materials (Flash, eMMC, DDR and WiFi) must use the particles in RK AVL, otherwise the system will not run after the board comes back, and the Rockchip platform will not be able to confirm the specific reason. In the future, you will consider verifying some compatible materials (such as Flash, DDR, eMMC, WiFi and Camera). If Rockchip needs cooperation, please send an email to the corresponding business or interface person of Rockchip for application.

4. Live support

Depending on your company, project schedule and the status of the specific problem, Rockchip will arrange for the appropriate personnel to provide technical support services on site. On-site technical support here includes two ways: you to Rockchip on-site support and Rockchip to your on-site support;

4.1 Live support to Rockchip

In the following cases, you can apply to Rockchip for on-site processing:

- On-site review (schematic diagram and PCB Layout diagram);
- Rockchip hardware or laboratory testing required;
- Requires a special software and hardware platform Rockchip to cooperate with the solution;
- Problems that can no longer be solved through the communication of the Bug system need on-site cooperation, such as building a recurrence environment;
- Requires a special hardware platform to cooperate;
- The processing speed of the Bug system can no longer meet the current project progress;

- Key projects need urgent work.

All these problems need to be made at least one day in advance (working days) to Rockchip on-site processing, the appointment method is to communicate with the corresponding Rockchip business or technical interface person, they agree, Rockchip internal according to the customer's specific problem confirmation, then arrange the appropriate personnel in Shanghai, Shenzhen or Fuzhou to receive and deal with.

4.2 to customer on-site support

In the following cases, you can apply for Rockchip on-site processing:

- Review drawings, mainly Rockchip to the site together to review drawings (schematic diagram and PCB Layout);
- Rockchip is required for laboratory testing and verification;
- Requires a special software and hardware platform Rockchip to cooperate with the solution;
- Problems that cannot be solved through the Bug system communication need on-site cooperation, such as problems in the production line and the establishment of a recurrence environment;
- Requires a special hardware platform to cooperate;
- The processing speed of the Bug system can no longer meet the current progress of the project;
- Key projects need urgent tackling.

As Rockchip's R & D resources are very tight, you need to make an appointment at least two days in advance (working days) to apply for Rockchip to deal with these problems on site. The appointment method is to communicate with the corresponding business or technical interface person of Rockchip first, after they agree, Rockchip internal according to the customer's specific problem status. Then arrange a business trip for the right person in Shanghai, Shenzhen or Fuzhou. Generally, it is recommended that customers go to the Rockchip site to deal with the best, because of the limited personnel to the customer site, the problem can be solved in the customer site is not much.

5. Complaints and suggestions

If the problem you submitted is handled slowly or has not been followed up for a long time, which can no longer meet the project progress needs of your company, please send an email to the Rockchip technical interface person (and copy the corresponding business of Rockchip) or telephone reminder.

If you have better suggestions on how to improve the system during use, please contact us in the following ways.

Contact Information Name	Email	contact number
FAE	fae@rock-chips.com	0755-86690899
sw.fae	sw.fae@rock-chips.com	0755-86690899
hw.fae	hw.fae@rock-chips.com	0755-86690899

Note:

If you need Rockchip platform software materials, such as software documentation, platform tools, patch or source code, please send email to sw.fae@rock-chips.com and copy to the corresponding business person of Rockchip.

If you need Rockchip platform chip datasheet, hardware reference design and other hardware information, please send an email to hw.fae@rock-chips.com and copy the corresponding business person of Rockchip.

6. Q&A

6.1 Submit an example of a software Case

In order to solve the problem as soon as possible and reduce the communication cost, here is an example.

6.1.1 Information required to submit a question

a. logcat and kernel log;

logcat Information : serial port or adb shell enter the command logcat -v time (If there is a lot of interference information, it is best to run the logcat -c before capturing valid log, for example, an exception occurs when starting an apk. Then a good log is to execute logcat -c before starting the apk, then logcat -v time, and then start the apk, so that the information obtained is easier to find the key information);

kernel Information : Output directly from the serial port or adb shell run the dmesg command.

If the application is unresponsive or forcibly closed, provide a trace file (data/arn/trace.txt).

b. The basic overwork process, which Rockchip engineers can replicate according to instructions, and reproduce the problem;

c. Confirmation of sdk version information;

Method: The 3288 5.1 box sdk is used as an example

```
RK3288_ANDROID5.1-RBOX-SDK_V1.00_20150722$ ls  .repo/manifest.xml -la
lrwxrwxrwx 1 azg azg 41 Jul 22 2015 .repo/manifest.xml  -
>manifests/rk3288_box_lollipop_release.xml     ls
.repo/manifests/rk3288_box_android-5.1_v2.00/     rk3288_box_android_releas-
5.1-v2.00.xml       rk3288_box_android_releas-5.1-v2.05_20151225.xml
rk3288_box_android_releas-5.1-v2.10_20170905.xml      rk3288_box_android_releas-
5.1-v2.01.xml       rk3288_box_android_releas-5.1-v2.05_20160111.xml
rk3288_box_android_releas-5.1-v2.11_20171115.xml      rk3288_box_android_releas-
5.1-v2.02.xml       rk3288_box_android_releas-5.1-v2.06_20160114.xml
rk3288_box_android_releas-5.1-v2.12_20171116.xml      rk3288_box_android_releas-
5.1-v2.03.xml       rk3288_box_android_releas-5.1-v2.06_20160118.xml
rk3288_box_android_releas-5.1-v2.13_20171121.xml      rk3288_box_android_releas-
5.1-v2.03_20151215.xml       rk3288_box_android_releas-5.1-v2.07_20160418.xml
  rk3288_box_android_releas-5.1-v2.14_20171122.xml
rk3288_box_android_releas-5.1-v2.04_20151217.xml      rk3288_box_android_releas-
5.1-v2.08_20160719.xml       rk3288_box_android_releas-5.1-v2.05_20151218.xml
  rk3288_box_android_releas-5.1-v2.09_20160922.xml     ls  .repo/manifests
  rk3036_wireless_dongle_mirror.xml       rk3188_lollipop_release.xml
rk322x_box_lollipop_mirror.xml        rk3288_box_lollipop_release.xml
```

In general, the latest xml of RK3288_box_lollipop_relex. xml and rk3288_box_android-5.1_v2.00 are consistent. It is best to compare whether the two files are consistent and let us know.