#### 适用于 KEIL MDK flex

# Keil MDK 安装指导

(安装前请确认版本:单机/网络)

2020.01

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# 单机版安装

# 一、 硬件/系统要求

表 1 安装要求

|            | 操作系统           |           |              | 硬件                         |   |
|------------|----------------|-----------|--------------|----------------------------|---|
| Windows 10 | Windows<br>8.1 | Windows 8 | Windows 7    | 基本要求                       | 推荐要求(仿真)  |
| 家庭版        | 专业版            | 专业版       | 家 庭 基 础<br>版 | 1.8GHz32<br>位或者 64<br>位处理器 | <ol> <li>2.4 GHz 以上<br/>的 64 位处<br/>理器或同等<br/>配置</li> </ol> |
| 专业版        | 企业版            | 企业版       | 家 庭 高 级<br>版 | 4GB 系 统<br>运行内存<br>(RAM)   | 8GB 系统运<br>行内存<br>(RAM)                                     |
| 企业版        |                |           | 专业版          | 3 GB 可用<br>的硬盘空间           | 6GB 可用的<br>硬盘空间   |
| 教育版`       |                |           | 企业版          |                            | 2 Mpbs 或者<br>更高的网络  |
|            |                |           | 旗舰版          |                            |   |

二、 软件下载

keil-MDK Version5.29 链接:

https://pan.baidu.com/s/1065K6qg-rJOQ2rGDzuqTHA

## 三、 软件安装



● 运行安装软件安装包,打开安装向导

| Setup MDK-ARM V5.25   | ×   |
|---|---|
| Welcome to Keil MDK-ARM<br>Release 3/2018   | <b>arm</b> KEIL                               |
| This SETUP program installs:  |   |
| MDK-ARM V5.25   |   |
| This SETUP program may be used to update a pro<br>However, you should make a backup copy before | evious product installation.<br>e proceeding. |
| It is recommended that you exit all Windows progr   | ams before continuing with SETUP.             |
| Follow the instructions to complete the product ins   | stallation.                                   |
|   |   |
| — Keil MDK-ARM Setup ————   |   |
|   | << Back Next >> Cancel                        |
|   |   |

图 3-1 安装向导

★ 勾选同意 License 协议



图 3-2 license 协议

★ 选择安装路径

| older Selection  |  |
|--|--|
| Select the folder where SETUP will install files               | <b>UTTI</b> KEIL                                 |
| Select the folder where SET OF will install files.             |  |
|  |  |
| Press 'Next' to install MDK-ARM to these folders. Press 'Brows | e' to select different folders for installation. |
| Press 'Next' to install MDK-ARM to these folders. Press 'Brows | e' to select different folders for installation. |

图 3-3 路径更改

### 填写用户信息

| Setup MDK-ARM  | V5.25  |                    |                              | >      |
|--|--|--------------------|------------------------------|--------|
| Customer Information<br>Please enter your information. |  |                    | arm                          | KEIL   |
| Please enter your                                      | name, the name of the comp                   | any for whom you w | ork and your E-mail address. |        |
| First Name:  | jack   |                    |                              |        |
| Last Name:   | Tank   |                    |                              |        |
| Company Name:  | <u>.                                    </u> |                    |                              |        |
| E-mail:  |  |                    |                              |        |
| — Keil MDK-ARM Set                                     | up   | <<                 | Back Next >>                 | Cancel |

图 3-3 填写用户信息

接下来按照提示点击 Next 直到完成安装

四、 软件激活

MDK 软件单机版机版 License 授权,选中 MDK 图标,单击右键<mark>以管理员</mark> 权限运行程序。

1) 运行 uVision5, 在 File 菜单中可以找到 license 管理选项, 如下图:

| Eile | <u>E</u> dit <u>V</u> iew | Project | Fl <u>a</u> sh | Debu |
|------|---------------------------|---------|----------------|------|
|      | <u>N</u> ew               |         | Cti            | rl+N |
| 2    | <u>O</u> pen              |         | Ctr            | 1+0  |
|      | ⊆lose                     |         |                |      |
|      | <u>S</u> ave              |         | Ct             | rl+5 |
|      | Save <u>A</u> s           |         |                |      |
| ø    | Save Aļļ                  |         |                |      |
|      | <u>D</u> evice Databa     | se      |                |      |
|      | License <u>M</u> anag     | ement   |                |      |
| -    |                           |         |                |      |

图 4-1 打开授权界面

| Name: liu                                  | ·  |                                |
|--|--|--------------------------------|
| Company: Email:                            |  | Get LIC via Internet           |
| Product                                    | License ID Code (LIC)/Product variant                    | Support Period                 |
| PR31 Prot. Develoers<br>MDK-ARM Profession | Krit EValuation Version<br>al L iQ-: N7-: JJ-: P: X-V US | Operation Expires: 16 Aug 2016 |
| New License ID Cod                         | 9 (LIC):   | Add LIC Uninstall              |

2) 选择 License Management... 弹出新的对话框如下图:

图 4-2 授权界面

3) 图中你可以看到一个 CID 号,下面是 Get LIC via Internet...按钮,通 过点击这个按钮你可以进入许可授权的申请,当然你要确保电脑是可以上网 的,点击

"Get LIC via Internet..."按钮后在弹出的对话框。

| Obtaining | a License ID Code (LIC)  |
|-----------|--|
| 1         | You are about to register a Product and obtain a License ID<br>Code (LIC).   |
|           | The following information must be sent to www.keil.com:  |
|           | Product Serial Number (PSN)<br>Computer ID Number (CID): JY N  |
|           | Notes:<br>? You may register the product manually at<br>http://www.keil.com/license/install.htm.   |
|           | ? After registering, you will receive an e-mail containing the LIC<br>for your computer.<br>? Enter the LIC into the New License ID Code field |
|           | - Enter the Let into the new Litense ib code field.  |
|           | 确定取消   |

图 4-3 提示窗口

4) 选择"确定"进入如下图所示页面:

| Enter Yo                | our Contact Information Below  |
|-------------------------|--|
| Computer ID (CID):      | Y-9  |
| Product Serial # (PSN): |  |
| PC Description:         |  |
|                         | Enter a description of the PC on which this license is registered.<br>For example: LAB PC, Office Computer, Laptop, John Schro |
| First Name:             | -定要填写正确  |
| Last Name:              | E Second   |
| E-mail:                 |  |
| Company:                |  |
| Address                 | shenzhen   |
|                         |  |
|                         |  |
| City                    | shenzhen   |
| State/Province:         | Select Your State or Provi   |
| Zip/Postal Code:        | 518000   |
| Country:                | China  |

图 4-4 填写用户信息

5) 在这里 CID 号已经帮你填好了,在你购买的包装了可以找到 PSN 号,填进去,后面的内容<mark>黑色粗体</mark>是必填项,全部填完,注意邮箱一定要正确,然后提交就可以了。

6) 正确提交后 Keil 会发送 LIC 号到你的邮箱,所以你立刻去收邮件就可以获得 LIC 号,获得 LIC 号之后,把这个号填入图示位置,这时后面的 AddLIC 变成黑色,点击就可以把许可授权添加进去,完成了单机版的授权配置。

| New License ID Code (LIC): | Add LIC | Uninstall |
|----------------------------|---------|-----------|
|                            |         |           |

图 4-5 添加激活码

注意为了方便往后的卸载安装:请保留 CID 号以及 LIC 号。

网络版 (Flex license) 安装

# 一、 注册账号

表 1 安装要求

|               | 操作             | F系统       |              | 硬件                            |   |
|---------------|----------------|-----------|--------------|-------------------------------|---|
| Windows<br>10 | Windows<br>8.1 | Windows 8 | Windows<br>7 | 基本要求                          | 推荐要求<br>(仿真)  |
| 家庭版           | 专业版            | 专业版       | 家庭基础<br>版    | 1.8GHz 32 位<br>或者 64 位<br>处理器 | <ol> <li>2.4 GHz 以</li> <li>上的 64 位</li> <li>处</li> <li>理器</li> </ol> |
| 专业版           | 企业版            | 企业版       | 家庭高级<br>版    | 4 GB 系统<br>运行内存<br>(RAM)      | 8GB 系统运<br>行 内 存<br>(RAM)   |
| 企业版           |                |           | 专业版          | <b>3 GB</b> 可用<br>的硬盘空间       | 6GB 可用的<br>硬盘空间   |
| 教育版`          |                |           | 企业版          |                               | 2 Mpbs 或<br>者更高的网<br>络  |
|               |                |           | 旗舰版          |                               |   |

如果您已经有 ARM 帐户了,请跳过"注册账号"这一节,直接看第二节" 登录 ARM 帐户,下载 License 文件"

如果打开 ARM 官网太慢,建议用笔记本电脑连接手机热点来访问 ARM 官网

★ 打开浏览器在地址栏中输入 <u>www.arm.com</u>进入 ARM 官网



图 1.1



★ 在 Email address 栏处输入需要注册的邮箱地址,然后点击Send verification code 按钮,向填写的邮箱发送一份带有验证码的邮件。



★ 收取邮件并将验证码填写到 Verification code 栏处,然后点击 Verify code 按钮。

|  | REGISTER                                |          |
|--|---|----------|
| Verification code has bee<br>Please copy it to the inpu<br>Email Address | en sent to your inbox.<br>It box below. |          |
| Verification code  |   | Feedback |
| Verify   | / code                                  |          |
| Send no  | ew code                                 |          |
| <br>Having any problem   | ns? Contact support                     |          |

图 1.4

注意:如果您没有收到验证码可以点击 Send new code 按钮重新向刚 才填写的邮箱中发送验证码;如果还是没有收到邮件,则有可以是邮箱过 滤了一些陌生邮件,请到垃圾邮件中查看。但垃圾邮件中还没找到时,则 可能是邮箱被设置了拦截功能请联系 IT 帮忙处理。

★ 填写相关信息, 然后点击 Create 按钮创建帐户



图 1.5

## 二、 登录 ARM 帐户, 下载 License 文件

1. 在浏览器的地址栏中输入 <u>www.arm.com</u>进入 ARM 官网, 右上角

A. 人物图标点击 Login in 按钮。





2. 然后浏览器的地址栏中输入 silver.arm.com 网址



图 2.2

## 3. 打开下图所示页面



图 2.3

.....

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4. 向下拖动垂直滑动条,找到 Manage licenses 按钮



5. 向下拖动垂直滑动条, 找到 Generate 按钮



图 2.4



6. 输入序列号, 然后点击 Get License 按钮生成

| CTTM Developer • Products Solutions Technologies Support Q   | Search Hello 又文子                                |
|--|---|
| Home / Support / Software Licensing / Generate Generate  | 注意核对ARM<br>一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一一 |
| Overview         Generate         View         Merge         Rehost         Support         FAQ           Here you can generate license files from a serial number.         1. Enter your Arm serial number and click "Get License"         2. Enter the host id information (If your license supports this)         3. Confirm your entries are correct         4. Download your license         Enter serial number         Image: Confirm your entries are correct         Image: Confirm your entries are correct         Image: Confirm your entries are correct         Image: Confirm your entries are and your license         Image: Confirm your entries are and your license         Image: Confirm your entries are correct         Image: Confirm your entries are confirm your entries are confirmed and your license         Image: Confirm your entries are confirmed and your license         Image: Confirm your entries are confirmed and your license         Image: Confirm your entires are confirmed and your license         Image: Confirm your entires are confirmed and your license         Image: Confirm your entires are confirmed and your license         Image: Confirmed and your license         Image: Confirmed and your license           Please note: You can enter a new (unused) serial number, or a previously registered serial with remaining seats.< |   |
| another account.   |   |

图 2.5

7. 选择 HostID Type1 处选择类型为 ETHERNET, 在 HostID1 处填写服务器的 MAC 地址, 然后点击 Generate 按钮进入确认页 面。核对下 MAC 地址确认无误后点击 Confirm 按钮。

| Overview Generate  | View Merge Rehost         |                        |   |
|--------------------|---------------------------|------------------------|---|
| etails             |                           | Quantity               | Rules   |
| Serial Number      |                           | Not required           | Must be Hexadecimal value     Ethernet Host Ids must be 12 digits long    |
| Part               | MDKCM-LC-40000            | HostID Type 1          | <ul> <li>Long Host Ids must be 8 digits long</li> <li>HostID 1</li> </ul> |
| Туре               | Floating                  | 1 ETHERNET 选择ETHERNET- | 2020 100 服务器的MAC地址  |
| Product            | MDK Essential Flex FL Lic | HostID Type 2          | HostID 2  |
| Available/Total    |                           | Select HostId Type     | Enter Host Id   |
| Used               | 0                         |                        | 11/2015 2   |
| Start date         |                           | Float Heatld Time      | Fostor Hart Id  |
| End date           |                           | Select Hostid type     | Litter Hostig   |
| Support start date |                           | Generate 3             |   |
| Support end date   |                           |                        |   |



8. 重复 6-7 步可将多套(若购买不止一个 PSN (序列号))全部 注册。

9. License 合并,在 merge 选项,可以查看所有注册 SN 号,全选之后,点击 merge 按钮,合并 license。

| Merge                           |      | Search                 |  |             |                       |                              |  |   |                         |                |                         |
|---------------------------------|------|------------------------|--|-------------|-----------------------|------------------------------|--|---|-------------------------|----------------|-------------------------|
| Rehost<br>Eval Products<br>Help |      | Host Id:               |  |             |                       |                              |  |   |                         |                |                         |
|                                 |      | Search                 |  |             |                       |                              |  |   | Results per page:       | 20 🔻           |                         |
|                                 |      |                        |  |             |                       |                              |  |   | Export ALL data to Exce | el 🛛 Export to | Excel                   |
|                                 |      | Total number<br>Serial | of records r                           | etrieved: 4 | Part                  | Start Date                   | End Date                               | Owner   |                         | Host Ids       |                         |
|                                 | 点击Vi | ew可以单独                 | 中载对应的                                  | license文件   |                       | a                            | 0040105140                             | , å"⊡, å⊡*æ–‡/  |                         |                | Г                       |
|                                 | L    | View                   | ••••                                   |             | 500r 5                |                              | 2018/05/10                             | Ltd:1623885   |                         | -              | - 7 (                   |
|                                 | l    | View                   |  | ,I          | )<br>MIDINEIN-LO-2000 | 1 2011/04/20                 | 2018/05/10                             | Ltd:1623885<br>, å"⊡, å⊡*æ–‡/.*<br>Ltd:1623885  |                         | E 104050       | - 7 (                   |
|                                 |      | View<br>View           |  | ·, î        |                       | 1 2011104120                 | 2018/05/10<br>2007/07/08               | Ltd:1623885<br>å"□, å□"æ=‡/."<br>Ltd:1623885<br>å"□, å□"æ=‡/u<br>Ltd:1623885  |                         | E 104.055      | - 7 (<br>- 7 (          |
|                                 | L    | View<br>View<br>View   | •••••••••••••••••••••••••••••••••••••• | ر           |                       | 1 2017/04/20<br>1 2017/07/01 | 2018/05/10<br>2017/07/08<br>2010/06/30 | Ltd:1623885<br>ā''□, ā□''æ-‡/.'<br>Ltd:1623885<br>ā''□, ā□''æ-‡/u<br>Ltd:1623885<br>ā''□, à□''æ-‡/ u<br>Ltd:1623885 |                         | E 1014.0000    | - 7 (<br>- 7 (<br>- 7 ( |

注意: 只有 MAC 地址相同的 license 才能合并

10. 点击 Download License 按钮下载 license 文件,如果没有出现下载窗口请

设置浏览器允许弹窗

| Overview Generate  | View Merge Rehost  |                      |   |
|--------------------|--|----------------------|---|
| Details            |  | Quantity             | Rules   |
| Serial Number      | La construction de la constructi | Not required         | <ul> <li>Must be Hexadecimal value</li> <li>Ethernet Host Ids must be 12 digits long</li> </ul> |
| Part               | MDKCM-LC-40000   | HostID Type 1        | <ul> <li>Long Host Ids must be 8 digits long</li> <li>HostID 1</li> </ul>                       |
| Туре               | Floating   | ETHERNET .           |   |
| Product            | MDK Essential Flex FL Lic  | HostID Type 2        | HostID 2  |
| Available/Total    | 6/6  | Select Hostid Type 🔹 | Enter Host Id   |
| Used               | 0  | HostID Type 3        | HostID 3  |
| Start date         |  | Select HostId Type   | Enter Host Id   |
| End date           |  |                      |   |
| Support start date |  | Download License     |   |
| Support end date   |  |                      |   |
|                    |  |                      |   |
|                    |  | U                    |   |



11. 在打开的页面中点击 Save 按钮,下载 License 文件



#### 图 2.8

## 三、 修改 License. dat 文件

用记事本打开 license.dat 文件,如下图所

示:

| 文                 | 件(F) 编辑(E) 格式(O) 查看(V) 帮助(H)  |
|-------------------|---|
| # # # # #         | Thus your modified server line will have the following format:<br>SERVER servername hostID port   |
| -                 | ***** IMPORTANT NOTE 2 *****  |
| + + + + + + + + + | If you are adding this license to a license server that is already<br>used for licensing ARM development tools, then you will need to<br>ensure that the license server is upgraded to run the latest<br>version of the FLEX1m tools provided by the various ARM tools that<br>you have.                                  |
| + + + + +         | For example if you have obtained this license for RVDS 4.1 and you have an existing ADS license server, then you will need to upgrade to the latest armlmd and lmgrd daemons which can be downloaded from the ARM website at https://silver.arm.com Go to "Downloads" -> "Utilities" -> "FLEXnet binaries and utilities". |

图 3.1

将上图红色方框中的 SERVER this\_host 001002A34BC5 修改为以下格式:

SERVER 服务器名称(或者 IP 地址) 服务器 MAC 地址 端口号比如: SERVER synchrotron 001002A34BC5 8224

这里的服务器名称(IP 地址)和端口号,客户端软件授权时需要使用这两个参数

# 四、 FlexLM license 管理工具的安装

#### FLEXnet license 管理工具下载:

(only 64bit windows)

链接: <u>https://pan.baidu.com/s/1XkRQOy3RzdOdSlTcnGpWbw</u> 密码: ofdy

- 我们以 64 位的软件为例,下载到上图所示文件后,需要解压, 解压后打开
- 文件夹.如下图:

| 名称                       | 修改日期            | 类型              | 大小       |
|--------------------------|-----------------|-----------------|----------|
| 🔟 armlmd.exe             | 2013/2/12 19:47 | 应用程序            | 2,254 KB |
| 🗋 debug.log              | 2015/9/22 21:14 | 文本文档            | 1 KB     |
| 💋 fnp_LicAdmin_11.11.pdf | 2013/2/12 19:47 | Foxit Reader PD | 2,069 KB |
| 🛄 Imgrd.exe              | 2013/2/12 19:47 | 应用程序            | 1,878 KB |
| 💐 Imtools.exe            | 2013/2/12 19:47 | 应用程序            | 2,233 KB |
| 🗾 Imutil.exe             | 2013/2/12 19:47 | 应用程序            | 1,947 KB |
| MDK_license.lic          | 2015/9/22 20:42 | LIC 文件          | 5 KB     |
| 💋 ReleaseNotes.pdf       | 2013/2/12 19:47 | Foxit Reader PD | 384 KB   |
|                          | 图 4.1           |                 |          |

2、双击 Imtools.exe, 出现以下对话框, 点击 config services

| LMTOOLS by Flexera   | - 🗆 X                       |
|--|-----------------------------|
| File Edit Mode Help  |                             |
| Service/License File   System Settings   Utilities   Start/Stop/Reread   Server Status   Server Diag | S Config Services Borrowing |
| Configure Service  |                             |
|  | Save Service                |
| Service Name  FlexIm Service Keil MDK  | Remove Service              |
| Path to the Imgrd.exe file D:\FlexNet\Imgrd.exe Browse   |                             |
| Path to the license file D:\FlexNet\license.dat Browse   |                             |
| Path to the debug log file D:\FlexNet\debug log.txt Browse   | View Log Close Log          |
| Start Server at Power Up   | icensing Service Details    |
|  |                             |
|  |                             |

图 4.2 17



注:选填各个路径。 Imgrd.exe 在下载的软件的文件夹里, license file 从官方网站下载。debug log file 需要新建。

3、以上步骤完成后,点击 save servise 保存操作。点击 Start/Stop/Reread。

| rvice/License F | ile   System Settings   Utilities | Start/Stop/Reread Server Status         | Server Diags Config Services Borrowing |
|-----------------|-----------------------------------|---|--|
|                 | FlexN                             | et license services installed on this ( | computer                               |
|                 | Flexin                            | n Service 1                             |  |
|                 | MOK                               | ARM                                     |  |
|                 |                                   |   |  |
|                 |                                   |   |  |
|                 | Start Server                      | Stop Server                             | ReRead License File                    |
|                 | Advanced settings >>              | Force Server Shutdown                   | ecked to shut down a license server    |
|                 |                                   | when licenses are borrowed.             |  |

图 4.3

注: 点击 Stop Server,如果在最下方没有出现 Stopping Server,那 么将 Stop Server 前 面的勾选中,然后点击 Stop Server,直至出现 Stopping Server。最 后点击 Start Server,启动服务。 4、用户可点击 Server Status 查看服务状态, Perform Status Enquiry 下方会出现当前 license 的状态。



图 4.4

五、 客户端安装

#### 下载链接:

1、keil-MDK Version5.29 链接:

https://pan.baidu.com/s/1065K6qg-rJOQ2rGDzuqTHA

2运行安装文件。



图 5.1



2、软件安装完成后,打开软件。

| File         | Edit View Project  | Flash D | ebug Peripherals Tools SVCS           | Window I |
|--------------|--------------------|---------|---------------------------------------|----------|
| Π            | New                | Ctrl+N  | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |          |
| <sup>2</sup> | Open               | CtrI+O  |                                       | > 🤭 🚳    |
|              | Close              |         |                                       |          |
| H            | Save               | Ctrl+S  |                                       | mair     |
|              | Save As            |         |                                       | 44       |
| -            |                    |         |                                       | 45       |
| 6            | Save All           |         |                                       | 46       |
|              | Davica Databasa    |         |                                       | 47       |
|              | Device Database    |         |                                       | 48 [     |
|              | License Management |         |                                       | 49       |
|              |                    |         | c (LED)                               | 50       |
|              | Print Setup        |         |                                       | 51       |
| 4            | Print              | Ctrl+P  |                                       | 52       |
| -            |                    |         |                                       | 53       |
|              | Print Preview      |         | brary:PIO)                            | 54       |

图 5.2

3、选择"File→License Management..."打开 License 管理器,选择 "FlexLM

License".

| Cations Alations Product |
|--------------------------|
| Out Check In             |
| es: 16 Aug 2016          |
| dit Used By              |
|                          |



4、点击 Edit...。出现以下窗口

| Server (port | @hostname):  |       |
|--------------|--------------|-------|
| 8774@107     | 169 10 140   |       |
| 0224@192,    | 100, 10, 140 |       |
|              | Sec. 33.5    | _ 3 A |

图 5.4

在窗口中填入正确的端口号和服务器 IP 地址(就是在 license.dat 文件中修改后的"服务器名称"、"端口号"),点击 OK,将 Use Flex Server 前的勾打上,点击 close 即可。默认端口号为:27000. 推荐端口为:

<mark>8224</mark>