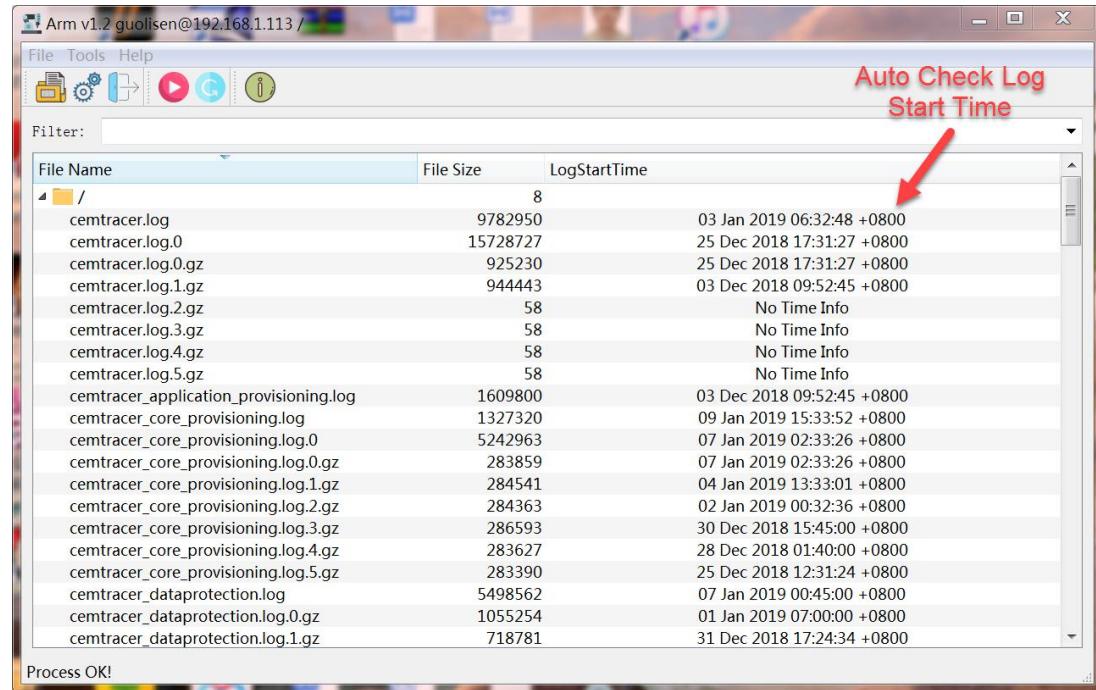


# Summary

In the triage package, there are many big log files are split into several small 'GZ' files, but we cannot know the start time of these log files, in current LINUX environment, we can only open these files one by one to find that we want to use.

It is awfully boring, so I write a simple Arm to check log start time as follows:



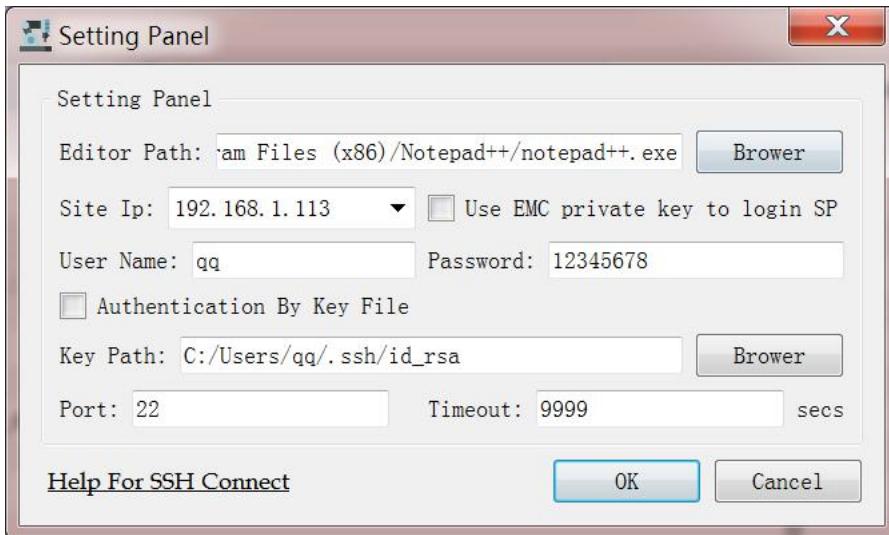
File Name	File Size	LogStartTime
cemtracer.log	9782950	03 Jan 2019 06:32:48 +0800
cemtracer.log.0	15728727	25 Dec 2018 17:31:27 +0800
cemtracer.log.0.gz	925230	25 Dec 2018 17:31:27 +0800
cemtracer.log.1.gz	944443	03 Dec 2018 09:52:45 +0800
cemtracer.log.2.gz	58	No Time Info
cemtracer.log.3.gz	58	No Time Info
cemtracer.log.4.gz	58	No Time Info
cemtracer.log.5.gz	58	No Time Info
cemtracer_application_provisioning.log	1609800	03 Dec 2018 09:52:45 +0800
cemtracer_core_provisioning.log	1327320	09 Jan 2019 15:33:52 +0800
cemtracer_core_provisioning.log.0	5242963	07 Jan 2019 02:33:26 +0800
cemtracer_core_provisioning.log.0.gz	283859	07 Jan 2019 02:33:26 +0800
cemtracer_core_provisioning.log.1.gz	284541	04 Jan 2019 13:33:01 +0800
cemtracer_core_provisioning.log.2.gz	284363	02 Jan 2019 00:32:36 +0800
cemtracer_core_provisioning.log.3.gz	286593	30 Dec 2018 15:45:00 +0800
cemtracer_core_provisioning.log.4.gz	283627	28 Dec 2018 01:40:00 +0800
cemtracer_core_provisioning.log.5.gz	283390	25 Dec 2018 12:31:24 +0800
cemtracer_dataprotection.log	5498562	07 Jan 2019 00:45:00 +0800
cemtracer_dataprotection.log.0.gz	1055254	01 Jan 2019 07:00:00 +0800
cemtracer_dataprotection.log.1.gz	718781	31 Dec 2018 17:24:34 +0800

We can login DEV/Array server by SSH, the Arm will load the log file and parse the log format and then get the start time of this log file.

After the log file loading, we can double click the file, the Arm will download the log file and then open by the local text editor.

# Feature

## ● Login



### 1. Login SP by EMC Root Private Key

You can select 'Use EMC private key to login SP' to login in all of SP ssh server.

Use EMC private key to login SP

### 2. Login By Key File(user name is 'root')

For example: My DEV simulator is '10.207.141.30'.

Open 'git bash' on your computer(win10).

a. Create public/private rsa key pair

```
[root@localhost ~]# ssh-keygen -t rsa -C "YOUR_EMAIL@YOUREMAIL.COM"
```

b. Copy the public key to '10.207.141.30'

```
[root@localhost ~]# ssh-copy-id -i ~/ssh/id_rsa.pub root@10.207.141.30
```

c. Open Arm Setting Panel, select the private key path

Key Path: C:/Users/qq/.ssh/id\_rsa

d. Select the 'Authentication By Key File', and click 'OK'

Authentication By Key File

### 3. Login By User Name and Password

Our DEV simulator forbid login by password, we should set SSH configure file to get the permission.

For example: My DEV simulator is '10.207.141.30'.

a. Changing the '/etc/ssh/sshd\_config' on '10.207.141.30'

    PasswordAuthentication yes

    PermitRootLogin yes

b. Reset sshd service

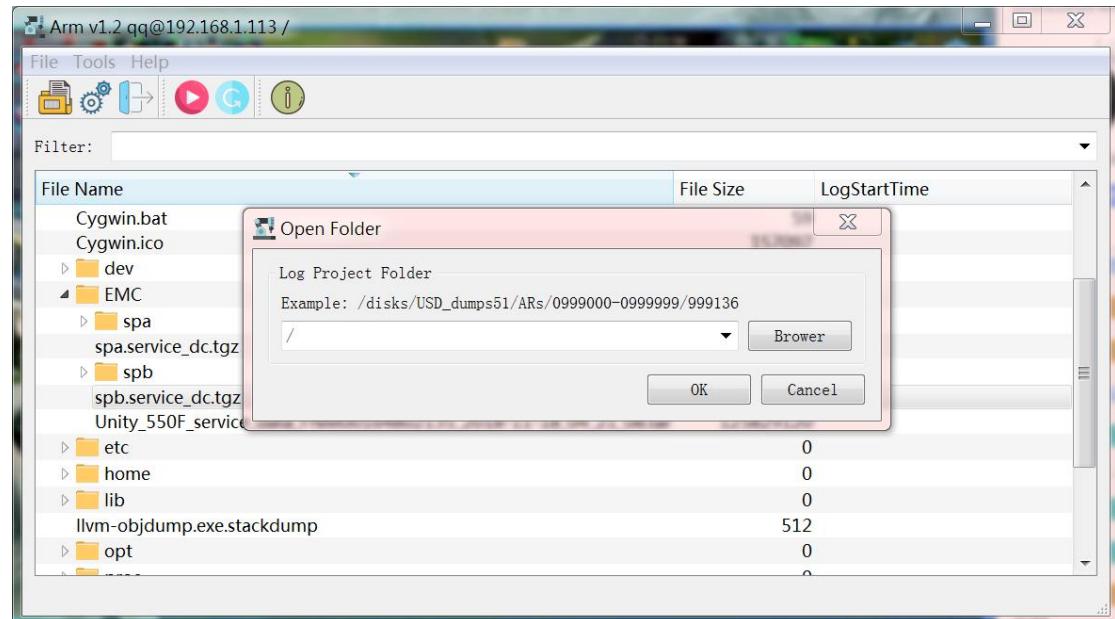
    systemctl restart sshd.service

**Attention:**

1. If you login by key file, the user name should be consistent with key file.  
For Example: use 'root' create key file, also should use 'root' login.
2. All remote command will run on current ssh server, so don't run some DEV simulator command on SP  
For Example: run 'swarm' on SP, or run 'uemcli' on DEV simulator
3. the default config of 'PasswordAuthentication' on DEV simulator is OFF, if you want to login by user name  
please follow 2 to change ssh config file and then reset SSH server.

## ● Open Log Path

### 1. Open Remote/Local log path



2. Open log path, the Arm will parse log file and load the start time of log automatically

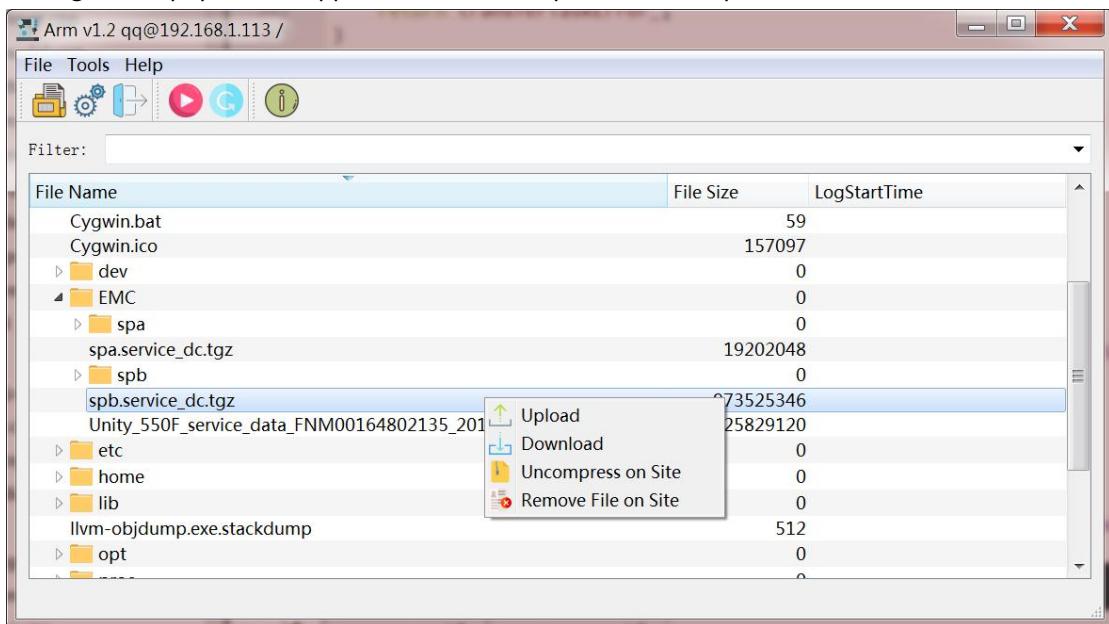
Auto Check The Start Time Of Log

File Name	File Size	LogStartTime
cemtracer.log	9782950	03 Jan 2019 06:32:48 +0800
cemtracer.log.0	15728727	25 Dec 2018 17:31:27 +0800
cemtracer.log.0.gz	925230	25 Dec 2018 17:31:27 +0800
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cemtracer_core_provisioning.log.2.gz	284363	02 Jan 2019 00:32:36 +0800
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cemtracer_core_provisioning.log.4.gz	283627	28 Dec 2018 01:40:00 +0800
cemtracer_core_provisioning.log.5.gz	283390	25 Dec 2018 12:31:24 +0800
cemtracer_dataprotection.log	5498562	07 Jan 2019 00:45:00 +0800
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cemtracer_dataprotection.log.1.gz	718781	31 Dec 2018 17:24:34 +0800

Current version support c4\_safe\_ktrace format and cemtrace format. You can write LUA script to support other log format in FileTypeScript folder.

## ● Right Pop Menu

The right click pop menu support 'Download', 'Upload', 'Uncompress', 'Remove'



## ● Open Log By Local Editor

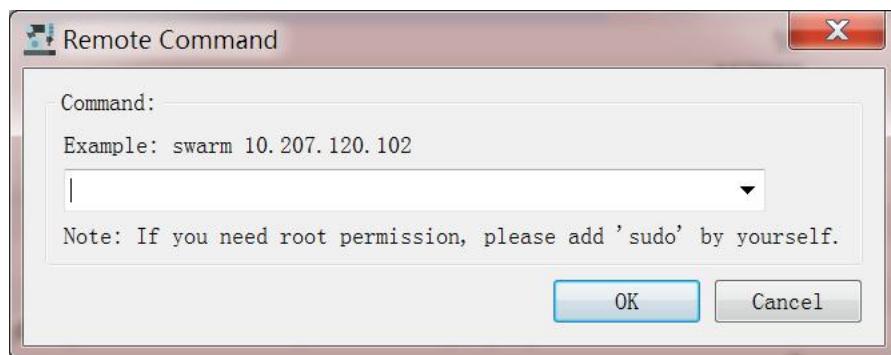
1. Set local editor path

Editor Path:

2. Double click the log file, the Arm will download the log file and then open by local editor. If the file format is 'GZ', the Arm will uncompress the file automatically.

## ● Run Command

The Arm can run some simple SSH command on current login SSH server, for example, if you login some Array, you can run MluCli.exe and FbeCli.exe, if you login DEV simulator, you can run 'swarm' etc.



## ● Add Custom Log Format

You can add your own log format at Arm/FileTypeScript, the LUA format file has 3 interfaces.

1. isMyType(filename)

Check whether the file name belong to this format script.

2. getTypeName()

Return current format script tag name

3. getLineTime()

Parse the input log string by Regex, return the time struct.

```
struct DateEntry
{
    bool exist;
    int year;
    int month;
    int day;
    int hour;
    int minute;
    int second;
    int mSecond;
};
```

## ● Edit Config.ini File

All setting of Arm is saved in Config.ini file.

```
Setting\EditorPath=C:/Program Files/Notepad++/notepad++.exe // Local editor path
Setting\siteIp=192.168.1.113                                // remote server IP
Setting\port=22                                         // port
Setting\userName=qq                                     // user name
Setting\password=12345678                                // password
Setting\timeOut=9999                                    // time out
Setting\keyFilePath=C:/Users/qq/.ssh/id_rsa             // local private key path
Setting\keyFile=1                                       // key file switch
Setting\threadNumber=5                                  // parse log thread number
Setting\emcRootKeyPath=./EmcRootKey/id_rsa.root        //EMC private key path
Setting\emcKeyFile=0                                     //EMC private key swtich
Setting\logEnable=1                                    // log switch
```