[UEFI Practice] Redfish BIOS Implementation - Generate EDK Data

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Generate Redfish file

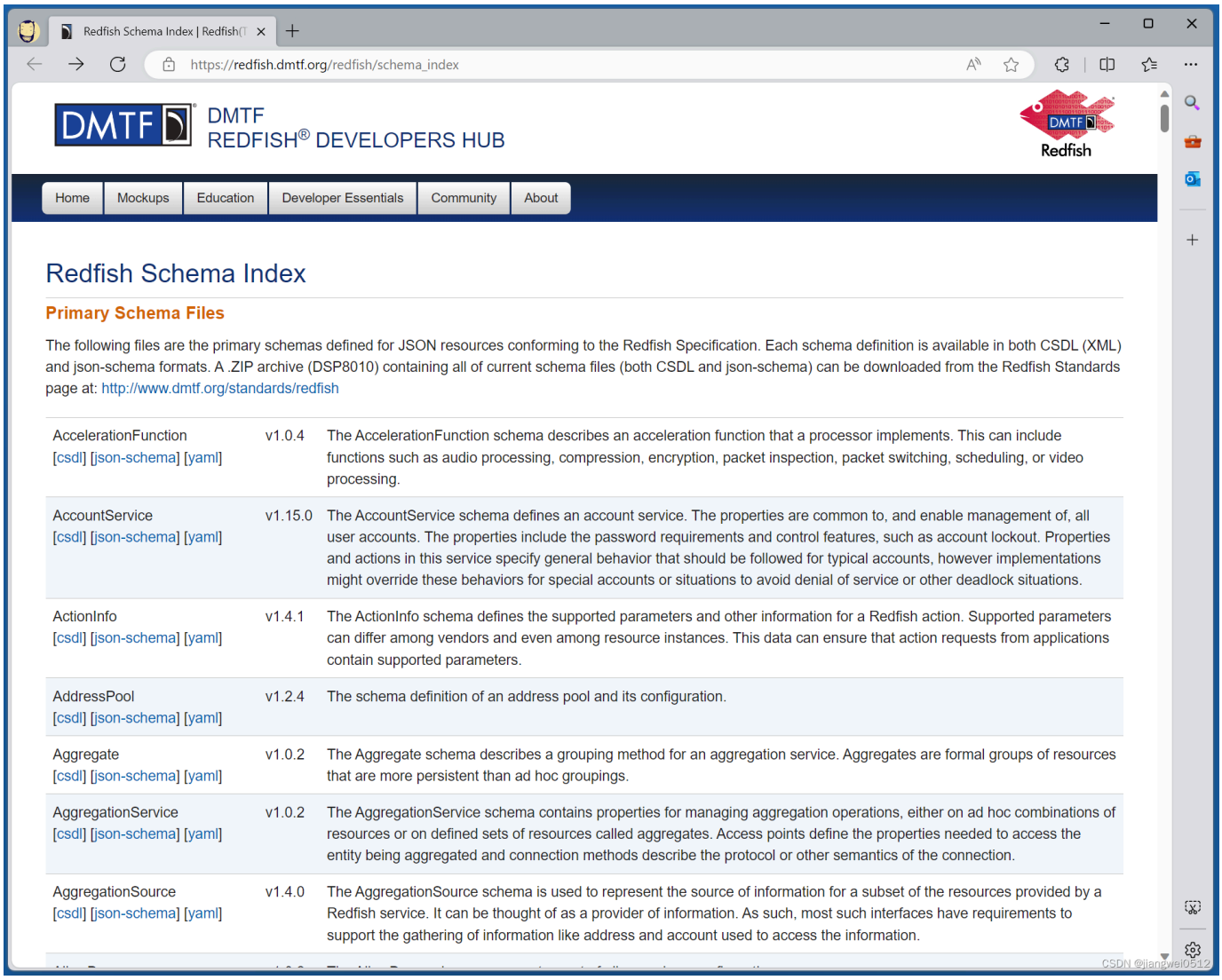
The most commonly used representation format for Redfish data is JSON. Converting the data represented by JSON into a structure that can be operated by C language is an essential step. Of course, manual conversion will waste a lot of time, so the DMTF organization has developed a tool to quickly convert JSON data into C language modules.

The tool is located at https://github.com/DMTF/Redfish-Schema-C-Struct-Generator. The downloaded content is as follows:

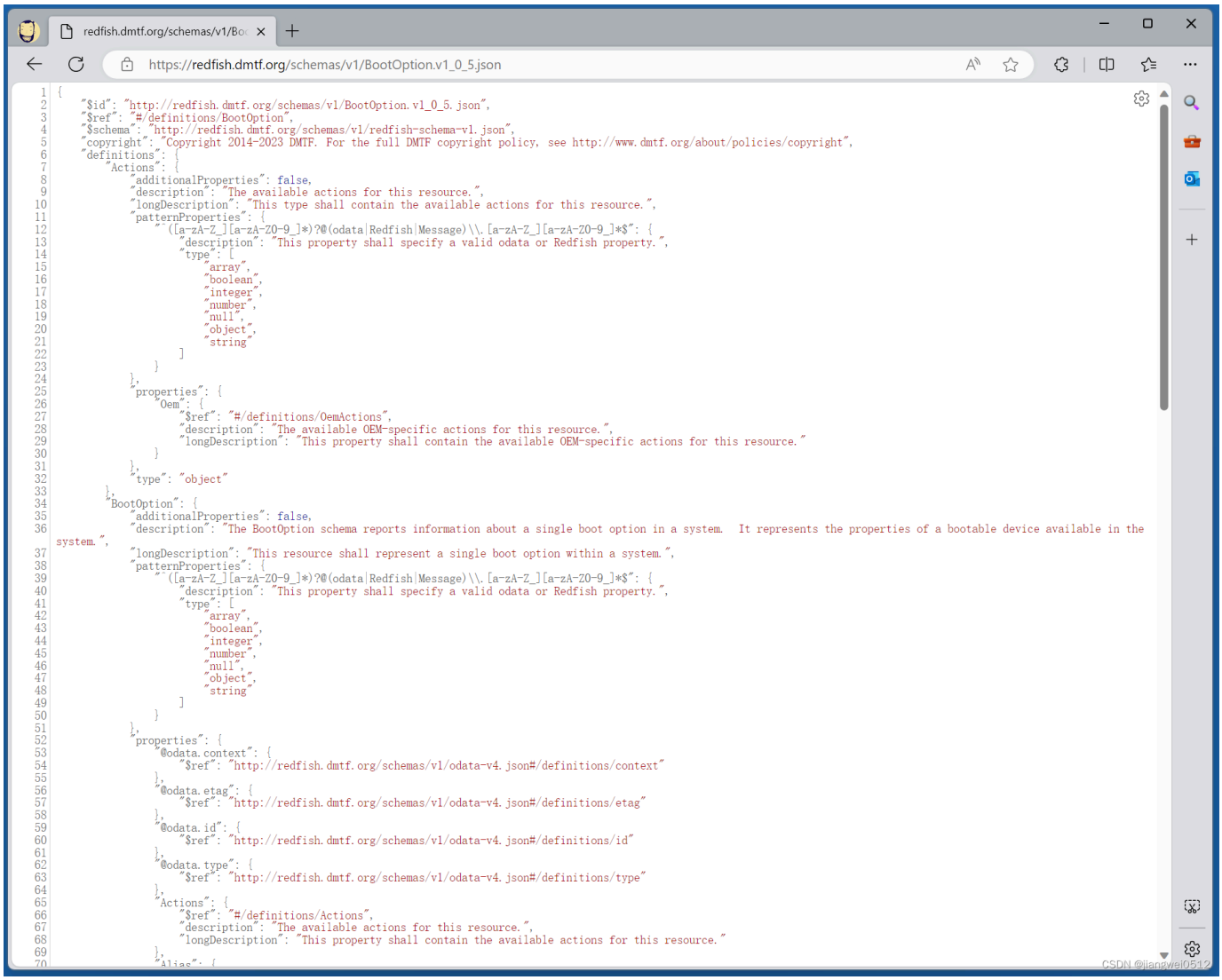
名称	修改日期	类型	大小
_Edk2OpenSourceTempFiles	2024/1/28 11:46	文件夹	
AUTHORS.md	2024/1/28 11:46	Markdown File	1 KB
CHANGELOG.md	2024/1/28 11:46	Markdown File	1 KB
GenCRelatedFile.py	2024/1/28 11:46	Python File	112 KB
GenEdk2Files.py	2024/1/28 11:46	Python File	24 KB
GenMarkdown.py	2024/1/28 11:46	Python File	19 KB
GenRedfishSchemaCS.py	2024/1/28 11:52	Python File	52 KB
LICENSE.md	2024/1/28 11:46	Markdown File	4 KB
README.md	2024/1/28 11:46	Markdown File	21 KB
RedfishCSDef.py	2024/1/28 11:46	Python File	3 KB
ToolLogger.py	2024/1/28 11:46	Python File	4 KB

You can see that it is a series of Python scripts, and its entry is the GenRedfishSchemaCS.py file.

To use this tool to convert JSON files, you first need JSON files supported by Redfish. You can download all JSON data files defined by Redfish at Redfish Schema Index | Redfish™ Developer Hub (dmtf.org) :



You can see that not only JSON is supported, but also CSDL and YAML, but the current tool only supports JSON conversion. Here is a JSON data supported by Redfish, such as BootOption related data:

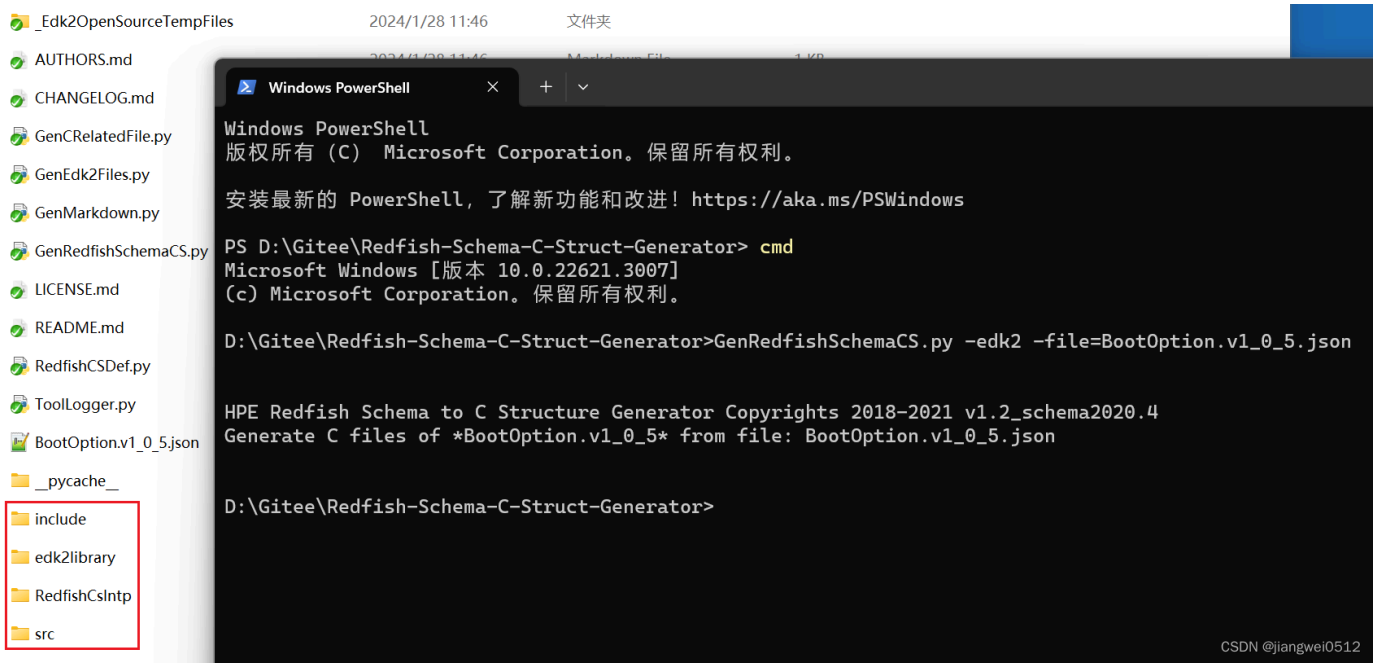


Download it and put it into a JSON file, then put the file into the Redfish-Schema-C-Struct-Generator directory and use the following command to convert it:

bash AI generated projects 登录复制

```
GenRedfishSchemaCS.py -edk2 -file=BootOption.v1_0_5.json
```

The result is:



These files can finally be found at https://github.com/tianocore/edk2-redfish-client.git. This open source library already contains the C structures corresponding to all JSON data supported by Redfish (however, the data versions may be different):