Introduction

csv.exe is a console application that outputs data stored in the Data Server in CSV format. We have prepared sample batch files that allow you to easily make CSV files. You can open and edit them with a text editor to match your needs and environment.

File Name	Description
01 GetLatestInfo.bat	Sample file to write the latest data to standard output
02 GetRecData(date).bat	Sample file to write recorded data for the specified date to standard output
03 GetRecData(number).bat	Sample file to write the specified number of most recent recorded data to standard output
11 SaveLatestInfo.bat	Sample file to output the latest data to a CSV file
12 SaveTodayData.bat	Sample file to output today's data to a CSV file for each logger
13 SaveYesterdayData.bat	Sample file to output yesterday's data to a CSV file for each logger
14 SaveRecData(date).bat	Sample file to output recorded data for the specified date to a CSV file for each logger

Note:

- CR LF(0x0D0A) is used as a line break.
- If the field contains any of the following characters, the field is surrounded by double quotes (").
  - comma (,)
  - line feed (LF)
  - double quotation (")
    - EX) 123,"ab""cd",789
    - EX) 123,"ab,cd",789
- This application uses date and time in (standard) local time calculated from the time difference set in the logger.
- To run csv.exe, it is necessary to have Visual Studio 2013 Runtime installed and running on your computer.
  If your computer doesn't have the runtime installed, search for and install Visual C++ Redistributable Package for Visual Studio 2013.

Latest Info

By only specifying the IP address of the Data Server, the batch file will output the latest information for all devices stored in the Data Server.

CSV Data Format

```
serial,model,group,name,battery,ch1Time,ch1Value,ch1Unit,ch1Warn,ch2Time,ch2Va
lue,ch2Unit,ch2Warn,
```

The first line is the header and data starts from the second line. (See example output.)

Field Name	Description
Serial	Serial Number
Model	Model Number
group	Group Name
name	Device Name
Battery	Battery Level 5:Full to 0:None -1:No Info
ch1Time	Time of Ch.1 Recorded Data
ch1Value	Value of Ch.1 Recorded Data
ch1Unit	Unit of Ch.1 Recorded Data
ch1Warn	Ch.1 Warning Status*1
ch2Time	Time of Ch.2 Recorded Data
ch2Value	Value of Ch.2 Recorded Data
ch2Unit	Unit of Ch.2 Recorded Data
ch2Warn	Ch.2 Warning Status*1

*1 Warning Status	Description
none	No Warning
upper	Upper Limit Exceeded
lower	Lower Limit Exceeded
sensor	Sensor Warning
unknown	Unknown

Example

```
csv 192.168.50.31:80
```

Output

```
serial,model,group,name,battery,ch1Time,ch1Value,ch1Unit,ch1Warn,ch2Time,ch2Value,ch2Unit,ch2Warn,
5214267E,TR-72wf,GROUP109,office72wf,1,2017-12-21 10:48:45,23.7,C,none,2017-12-21 10:48:45,20.0,%,none
52160003,TR-71nw,GROUP1,ichi008,5,2017-12-21 10:48:15,21.2,C,none,2017-12-21 10:48:15,22.0,C,none
52160204,TR-71nw,GROUP2,office71nw,5,2017-12-21 10:34:34,21.8,C,none,2017-12-21 10:34:34,21.5,C,none
52180001,TR-72nw,GROUP1,ichi005,5,2017-12-21 09:01:59,23.6,C,none,2017-12-21 09:01:59,17.9,%,none
52180006,TR-72nw,GROUP1,ichi003,5,2017-12-21 09:49:44,20.8,C,none,2017-12-21 09:49:44,24.0,%,none
52180017,TR-72nw,GROUP1,ichi006,5,2017-12-21 10:48:19,23.0,C,none,2017-12-21 10:48:19,22.0,%,none
52180018,TR-72nw,GROUP1,ichi007,5,2017-12-21 10:47:47,22.2,C,none,2017-12-21 10:47:47,23.0,%,none
52180301,TR-72nw,GROUP1,TR72nwTest,5,2017-12-21 08:36:17,20.3,C,none,2017-12-21 08:36:17,21.5,%,none
```

Recorded Data

The serial number of the data logger can be specified with the "-s" option to output recorded data for the target device.
The number of data readings to be output can be specified with the "-c" option.
The date of the output data can be specified with the "-d" option. EX) 20170401

CSV Data Format

```
time,ch1,ch2
```

The first line is the header and data starts from the second line. (See example output.)

- The first field of the header is the serial number of the data logger.
- The terms in square brackets [ ] in the channel fields of the header show the units for each channel.

Field Name	Description
time	Date and Time of Recorded Data
ch1	Channel 1 Recorded Data Normal: value Invalid data: ---- No value: blank
ch2	Channel 2 Recorded Data Normal: value Invalid data: ---- No value: blank

Example

```
csv 192.168.50.31 -s 5214267E -c 20
```

Output

```
5214267E,Ch.1[C],Ch.2[%]
2017-12-21 08:35:51,20.4,20
2017-12-21 08:36:51,20.4,20
2017-12-21 08:37:51,20.5,20
2017-12-21 08:38:51,20.5,22
2017-12-21 08:39:51,20.6,22
2017-12-21 08:40:51,20.7,22
2017-12-21 08:41:51,20.8,22
2017-12-21 08:42:51,20.9,22
2017-12-21 08:43:51,20.9,22
2017-12-21 08:44:51,20.9,22
2017-12-21 08:45:51,20.8,22
2017-12-21 08:46:51,20.9,22
2017-12-21 08:47:51,20.9,22
2017-12-21 08:48:51,20.9,22
2017-12-21 08:49:51,20.9,22
2017-12-21 08:50:51,20.9,22
2017-12-21 08:51:51,21.0,22
2017-12-21 08:52:51,21.1,22
2017-12-21 08:53:51,21.2,22
2017-12-21 08:54:51,21.2,22
```

Example

```
csv 192.168.50.31:80 -s 5214267E -d 20171207
```

Output

```
5214267E,Ch.1[C],Ch.2[%]
2017-12-07 00:00:51,16.7,27
2017-12-07 00:01:51,16.7,27
2017-12-07 00:02:51,16.7,27
2017-12-07 00:03:51,16.7,27
2017-12-07 00:04:51,16.7,27
2017-12-07 00:05:51,16.6,27
2017-12-07 00:06:51,16.6,27
2017-12-07 00:07:51,16.5,27
    :
    :
    :
2017-12-07 23:51:51,17.5,24
2017-12-07 23:52:51,17.5,24
2017-12-07 23:53:51,17.5,24
2017-12-07 23:54:51,17.4,24
2017-12-07 23:55:51,17.4,24
2017-12-07 23:56:51,17.4,24
2017-12-07 23:57:51,17.5,24
2017-12-07 23:58:51,17.5,24
2017-12-07 23:59:51,17.4,24
```