Futaba

Futaba File System Utility for T14SG/FX-22/T12FG/T8FG/FX-20 (Version 6. x)

T14SG/FX-22/T12FG/T8FG/FX-20 use original file system that is different from a general file system (FAT, NTFS etc) of personal computer. Therefore, you cannot copy the model data from the SD card onto PC by using the Windows Explorer.

You have to use our utility software (Futaba File System Utility) to copy the model data between T14SG/FX-22/T12FG/T8FG/FX-20 and the PC.

* The previous versions (before version 2.0) do not correspond to T14SG/FX-22/T8FG/FX-20.

■ System requirements

• **Microsoft Windows XP, Windows Vista, Windows 7, Windows 8, Windows 8.1, Windows 10**

• **Necessary memory and CPU specification is equal the system requirements of Operating System.**

1. Installation

There is not installer. You have to only extract the compression file.

2. Uninstallation

There is not special uninstallation procedure. You have to only delete the file.

*When FFS of the previous version has already been installed, please install FFS of the upgrade version after uninstalling of the previous version. Or please copy FFS of the upgrade product onto the previous version in the superscription.
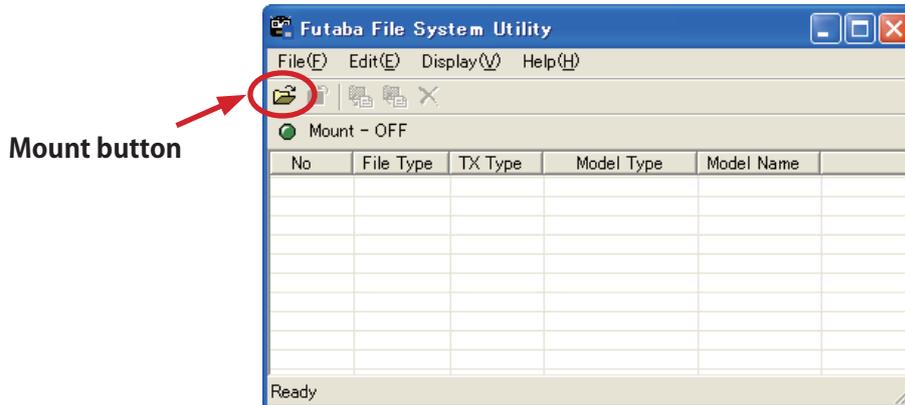
3. Mount of SD card

To handle the SD card by this utility, you have to open the card. This operation is called "mount".

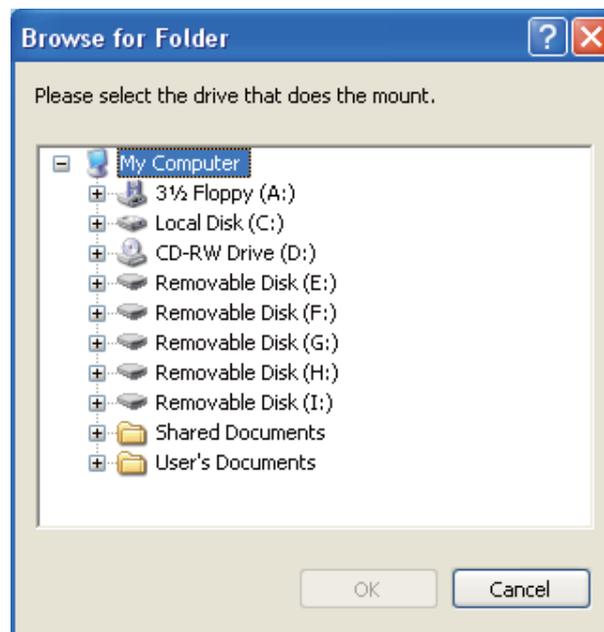3.1. Please attach the SD card to the card reader.
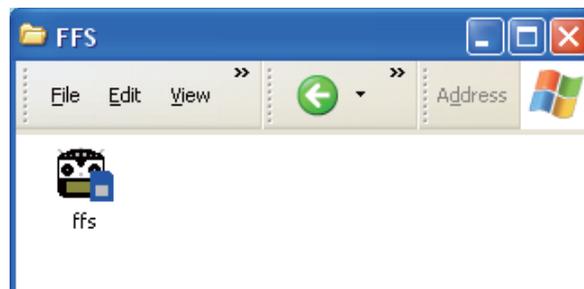
3.2. Please run the utility software (FFS.EXE).

3.3. The utility software starts, and the following screens are displayed. Please select "File" menu →
"Mount" menu or push the mount button.

Mount button

3.4. The selection dialog of the drive is displayed. Please select the icon of SD card drive, and push the
"OK" button.

3.5. When the utility software finish mount process, it display the content of the card.

No. : File index

File Type : Refer to following table.

File Type	Content
MODEL	They are files of Model data. You cannot write to file index of first to fourth, because file index of first to fourth is system reserved.
LOG	Telemetry log data. You cannot write to file index of first to fourth, because file index of first to fourth is system reserved. (*)
UPDATE	They are files for software update.
KEY	They are files for software update of Transmitter.
-	Not used.

* The file number 1-4 cannot read and write a file because of the reservation domain of a system.

Model Type : Refer to following table.

| Model Type	content
AIRPLANE	They are the airplane models.
HELICOPTER	They are the helicopter models.
GLIDER	They are the glider models.
MULTIROTOR	They are the multirotor models.
UNKNOWN	They are not model data.
-	They are not used or not model data.

Model Name : Model name is displayed.
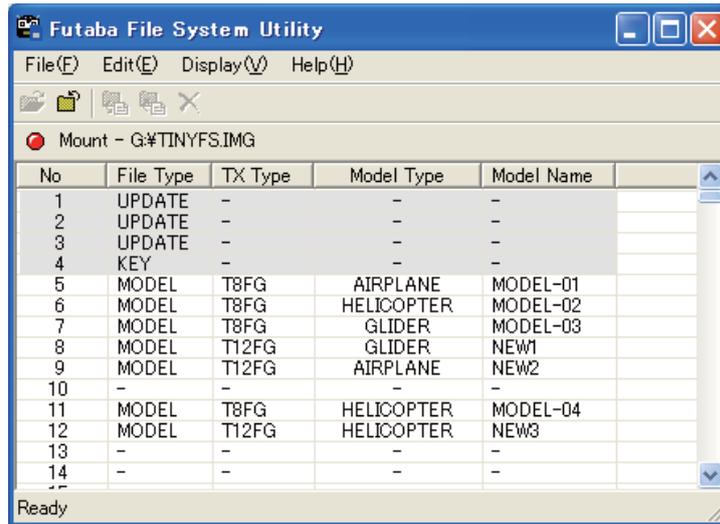
When it is telemetry log data (File Type is LOG), it is displayed as "LOG1."

When telemetry log data is recorded exceeding 1 file size, it is divided and recorded on two or more files. The display in that case → [LOG1] [LOG2] [LOG3] ...

4. Read from SD card (export)

4.1. Please select the model data or telemetry log data.

4.2. Please select "Edit" menu → "Export" menu or push the export button.
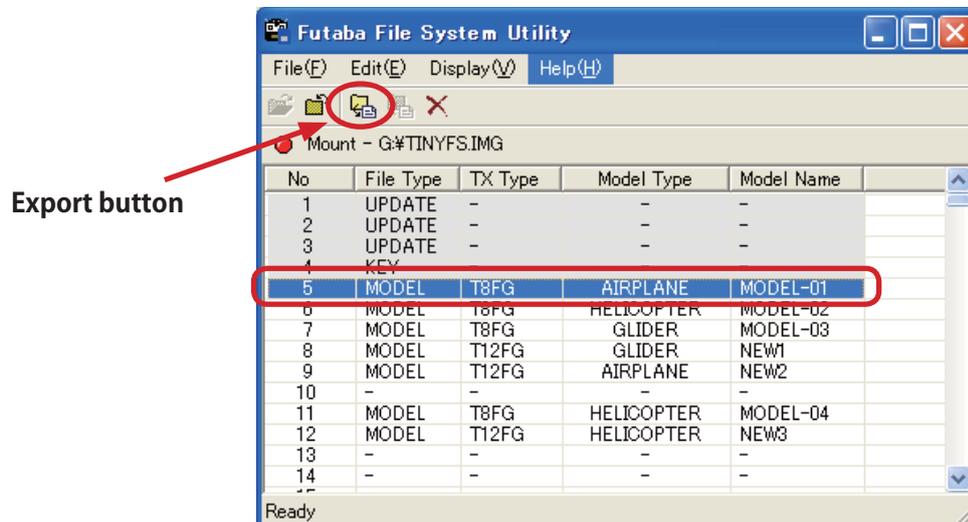
Export button

4.3. Export dialog is displayed. Please select destination of copy and push "Save" button. The utility software copy the data from SD card to the selected folder of your PC. If telemetry log data is exported, it is saved by CSV. Please input a file name in an export dialog and push "Save" button. A file extension is added automatically.
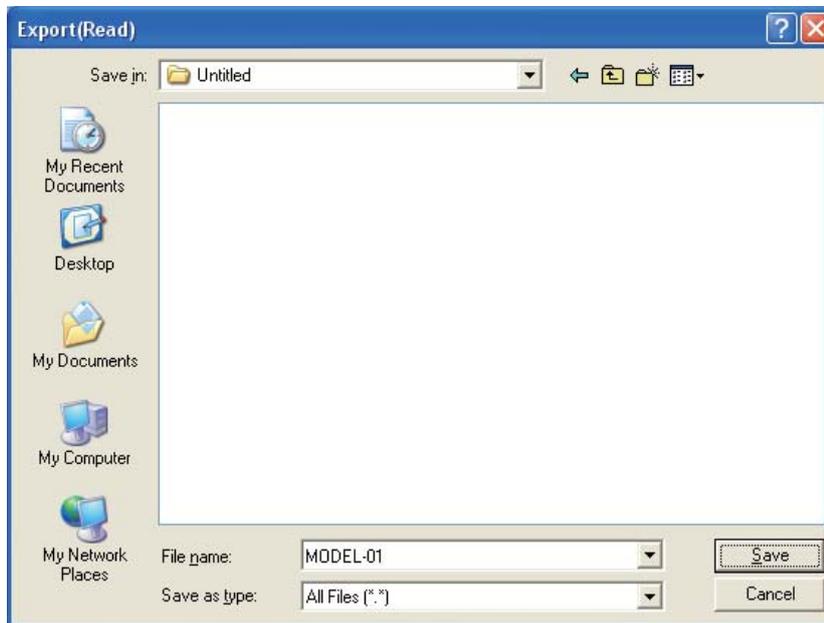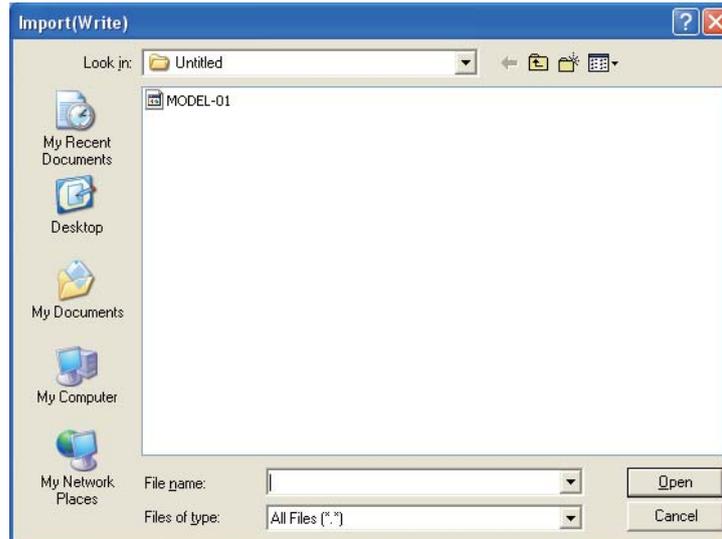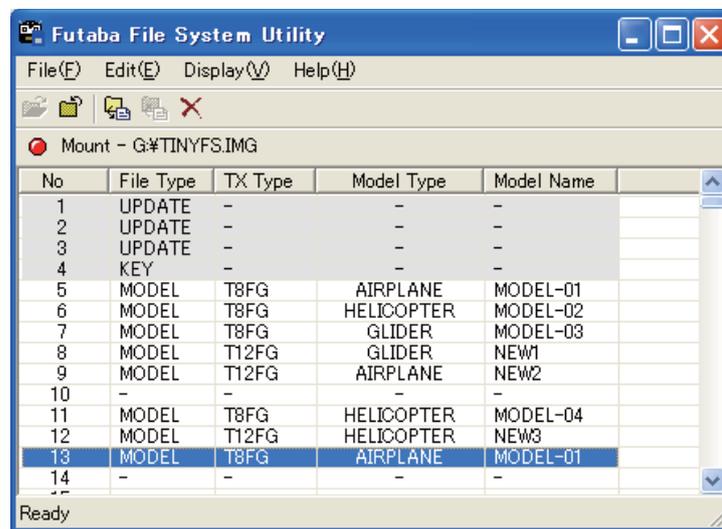

5. Write to model data (import)

5.1. Please select the destination of writing the model data.

5.2. Please select "Edit" menu → "Import" menu or push the import button.

-4-
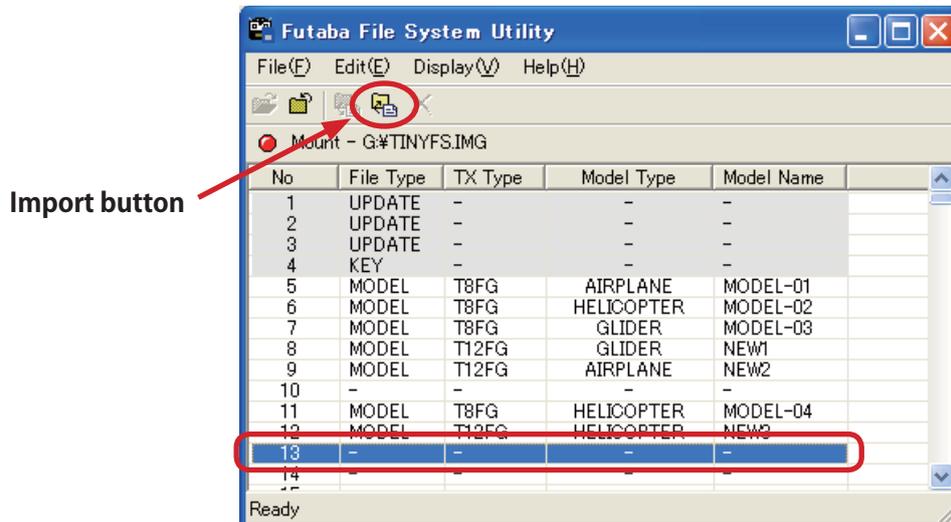
5.3. Import dialog is displayed. Please select the model data and push "Open" button.

5.4. The utility software copy the model data to the SD card.

6. Delete data

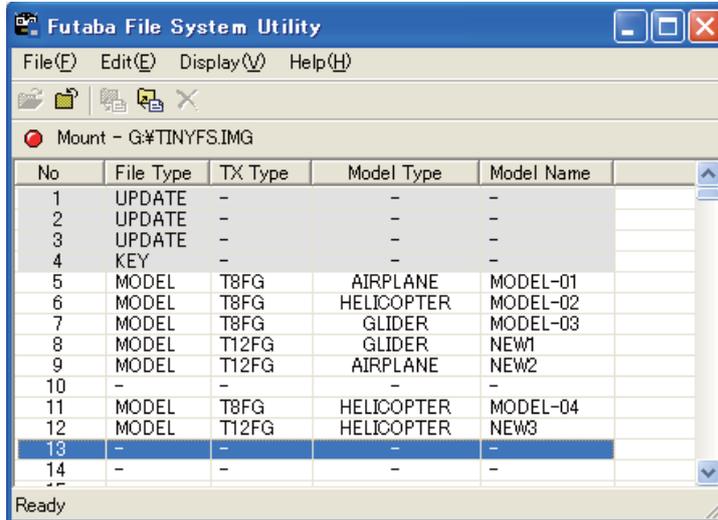6.1. Please select the model data or telemetry log data.

6.2. Please select "Edit" menu → "Delete" menu or push the delete button.
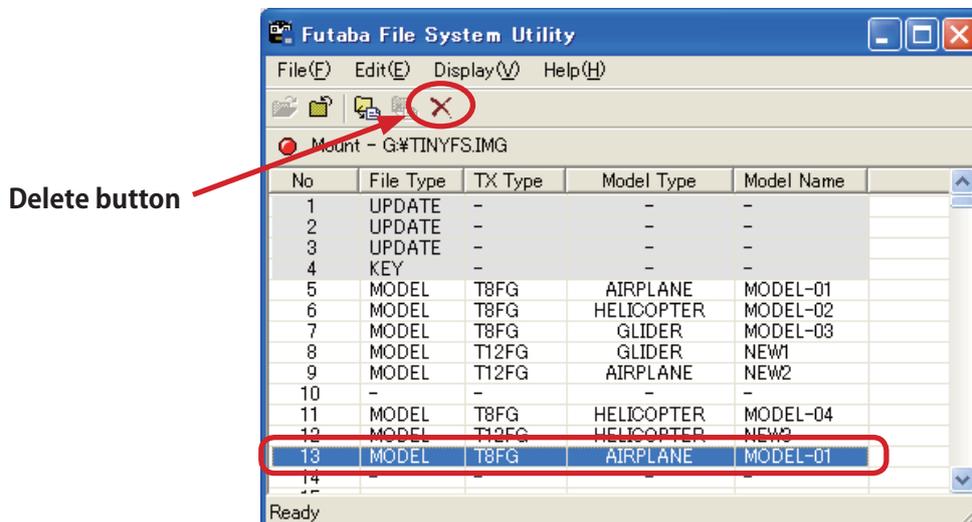
Delete button

6.3. The confirm dialog is displayed. Push "OK" button.

6.4. The utility software delete the selected data.
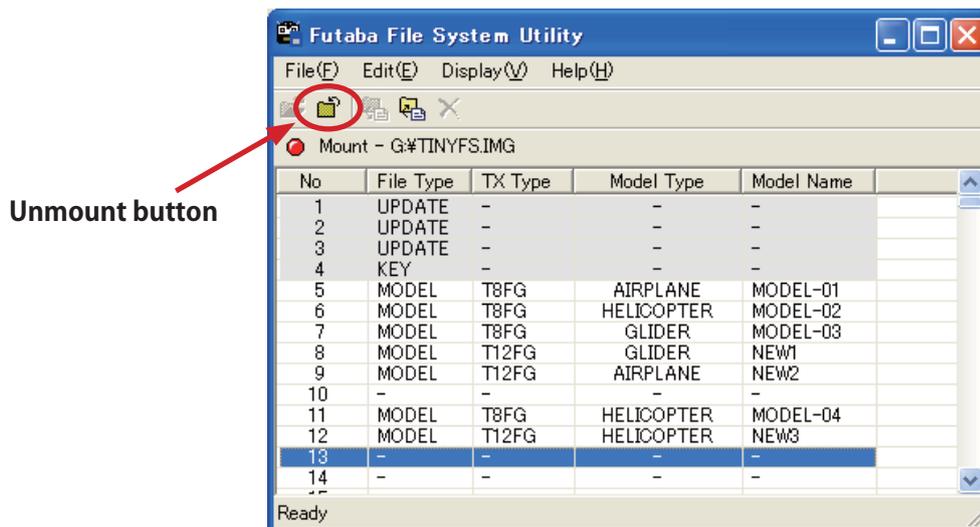

7. Display SD card infomation

7.1. Please select "Display" menu → "Property" menu. The utility software dispaly the card infomation dialog.

8. Unount SD card

Before SD card detach the card reader, You have to close the SD card. This operation is called "unmount".

8.1. Please select "File" menu → "Unmount" menu or push the unmount button.

Unmount button

8.2. The confirm dialog is displayed, Push "OK" button.

8.3. You can detach the SD card, after this operation.

9. Telemetry log data

Telemetry log file created with the transmitter corresponding to a telemetry log function is convertible for CSV.

The file of CSV can be opened by software, such as Microsoft Excel.

(The contents of a telemetry log data)

■ **The record time of data**

■ **Each channel signal of a transmitter**

■ **Slot number**

■ **The kind of sensor**

■ **Telemetry data**

10. Log File menu

"Log File" menu for selecting Unit and Converting mode.

Metric : Unit is Mteric.

Yard / Pound : Unit is Yard / Pound.

Combine : Converting and appeding data to the converted file before.

Separate : Converting independently.
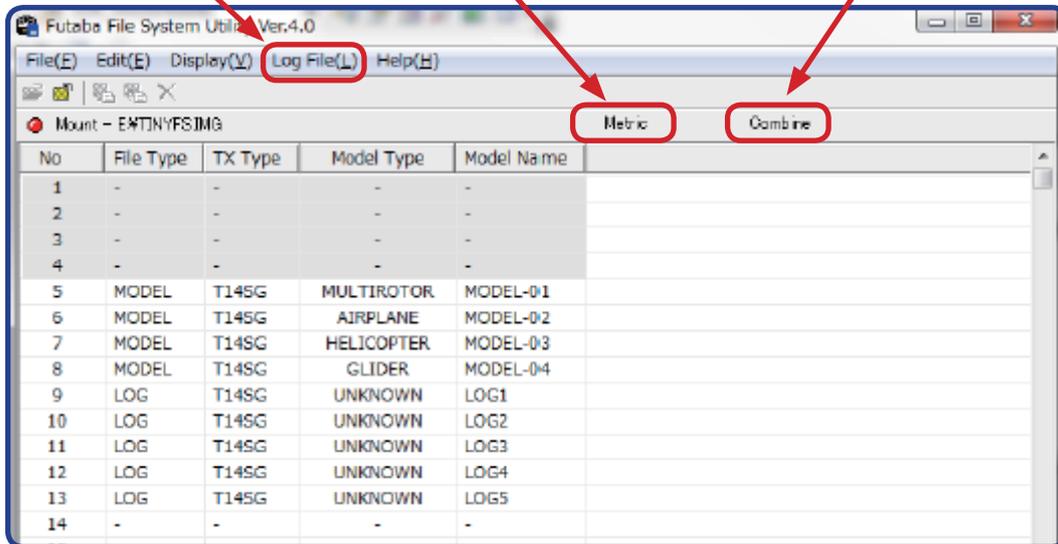
FFS Ver.4.0 can combine two or more log files.

When the telemetry log data is longer than 1 file size, T14SG/FX-22 divides and records it into two or more files.

There is a check mark on the current mode .
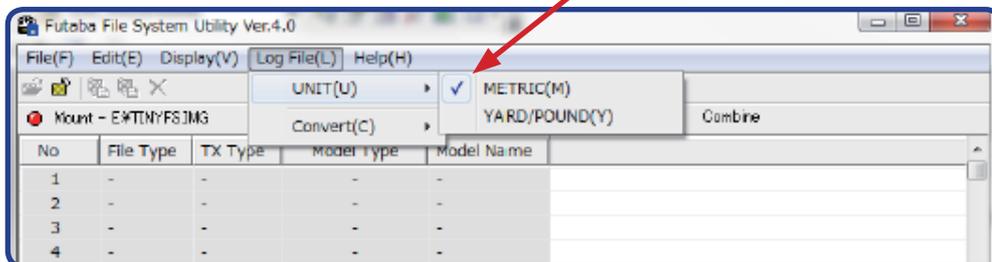
There is a check mark on the current mode .
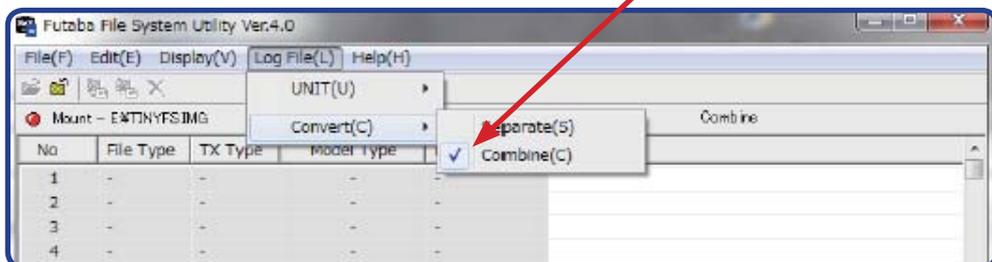
11. How to convert and combine the telemetry data

When the telemetry log data is longer than 1 file size, records it into two or more files.
A display becomes like this. → [LOG1] [LOG2] [LOG3]…
A file is combinable in the following procedures.

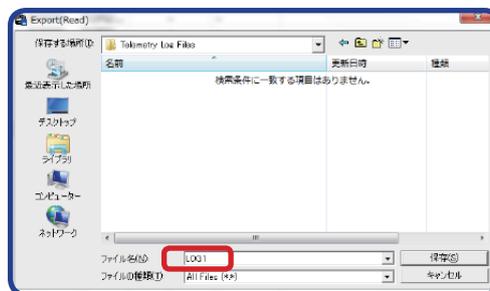11.1. Please select "Combine" mode at "Log File" menu.
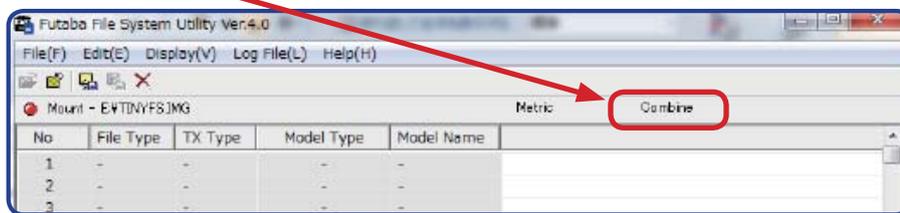
If "LOG1" file is chosen even if "Combine" is chosen, a file will be created and changed newly.
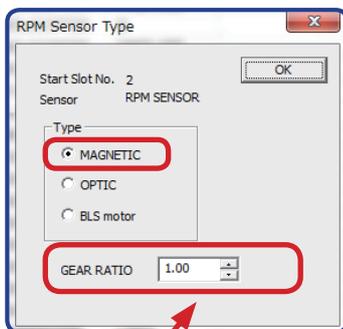
11.2. Please select "LOG1".

11.3. Please execute "Export" menu.
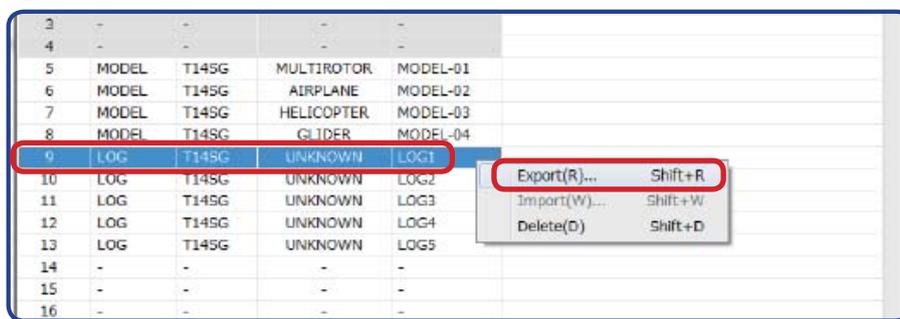
11.4. The file dialog is opened. Please enter the file name after conversion. After that, please click SAVE button.

11.5. If RPM sensor is registrated, the dialog for setting the parameter is opened. Please set the parameters same as transmitter. After that, please click OK button.

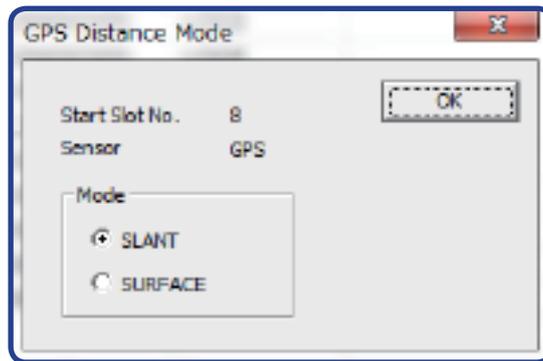**When MAGNETIC type is selected, GEAR RATIO is needed.**
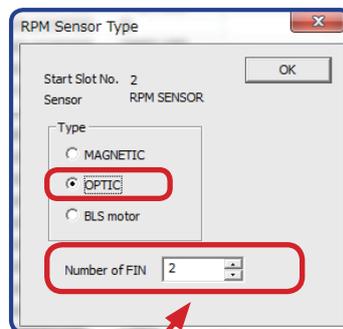
When OPTIC type is selected, Numbers of fins are needed.
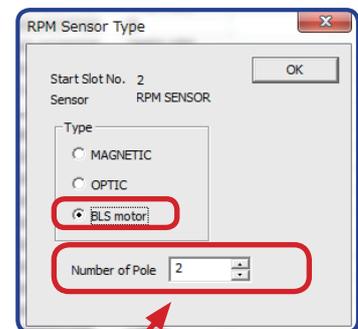
When BLS motor type is selected, Numbers of poles are needed.

11.6. If GPS sensor is registrated, the dialog for setting the parameter is opened. Please set the parameters same as transmitter. After that, please click OK button.

11.7. If ROXXY Smart Controller (Robbe) is registrated, the dialog for setting the parameter is opened. Please set the parameters same as transmitter. After that, please click OK button.

11.8. If Castle ESC is registrated, the dialog for setting the parameter is opened. Please set the parameters same as transmitter. After that, please click OK button.
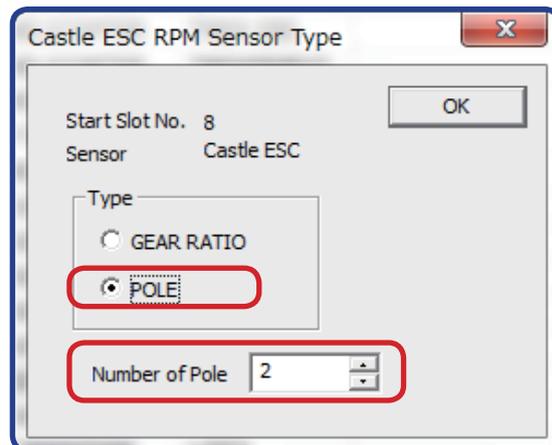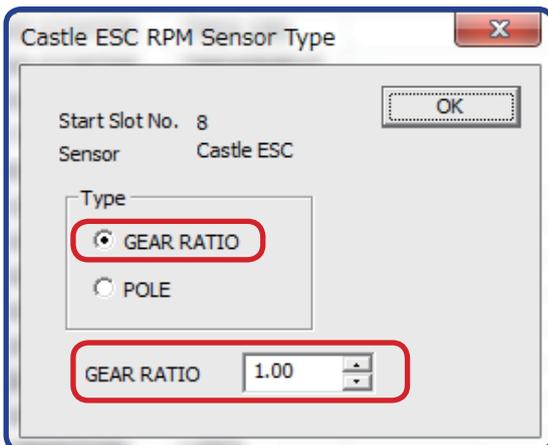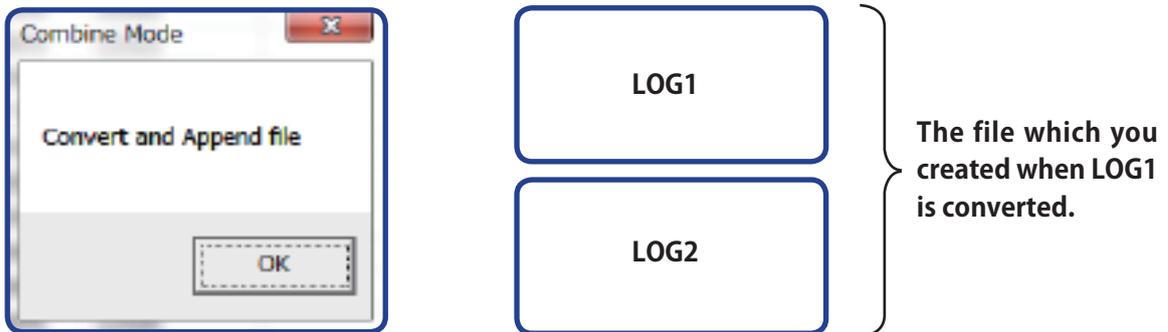
11.9. 1st telemetry file is converted.
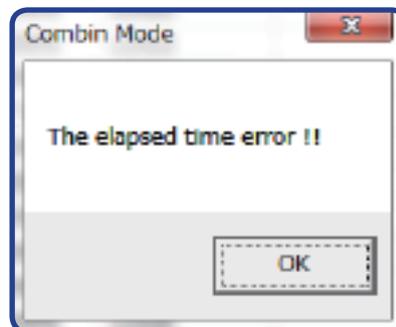
11.10. Please select next file "LOG2".

11.11. Please execute "Export" menu.
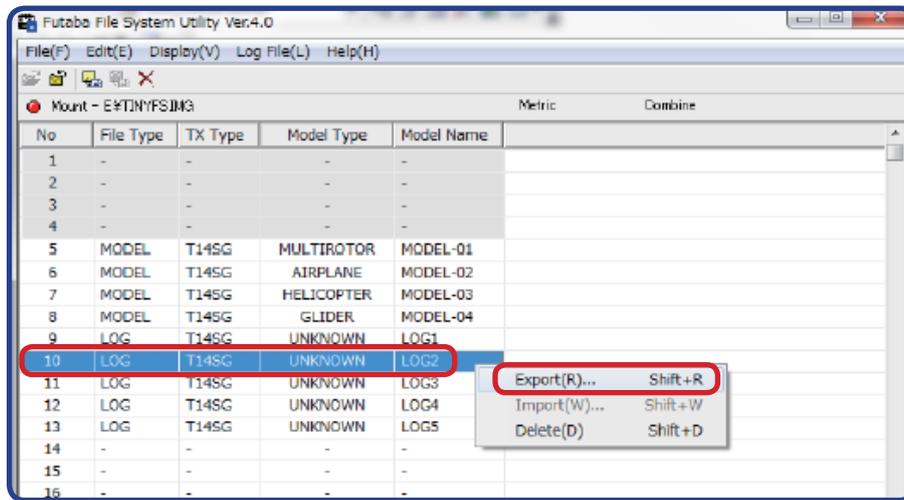
11.12. Message box is opened. Please click OK button.　"LOG2" is converted. And, it is added in the end of "LOG1".

If the file order is mistaken (the elapsed time is error), the warning screen is displayed. And, this file is not converted and combined.

11.13. Please select next file which you would like to convert and append. And, please repeat to operate from10 to 13.

11.14. If you select "LOG1", you can create new file and restart convert and combine.

Futaba File System Utility

＜ The example of a conversion file ＞

The record time of data
Unit：ms（1/1,000sec)
  *Although an interval is set up with a transmitter, since record time is moved slightly according to conditions, there are a set period and a difference.

Each channel signal of a transmitter
Unit：%　Neutral → 0%

Telemetry data

The kind of sensor

Slot number

The kind of telemetry data

Telemetry data

-12-
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