FUJITSU

RFID Label Design and Encoding Management Pro

User's Guide

Commissioning by Barcode Scanning

March 2017
Version 1.30

Preface

This document explains how to use the Commissioning from Barcode Scanning (hereafter referred to as "this application") of RFID Label Design and Encoding Management Pro (hereafter referred to as "this tool"). Be sure to read this document before using this application.

➔ Please read the *First Step Guide* first.

■ Abbreviations and generic terms used in documents for Fujitsu RFID Integrated Label Solution

The documents use the following abbreviations and generic terms.

Name	Abbreviation used in this document
Microsoft® Windows® 7 Professional	"Windows 7"
Microsoft® Windows® 8.1 Professional	"Windows 8.1"
Microsoft® Windows® 10 Professional	"Windows 10"
Terminals where Windows 7,Windows 8.1, or Windows 10 has been installed Personal computer	PC
Reader device for 2D barcode	"2D reader"
Reader/writer devices	"Reader device"
RFID tags	Tag
Printer which supports RFID data encoding	"RFID printer"
Fujitsu's RFID Integrated Label – 8Kbyte (Large/Medium/Small)	"Large capacity RFID tag" or "high memory tag"
Fujitsu's RFID Integrated Label – 1Kbyte (Large/Medium/Small) Fujitsu's 2-kilobit RFID tags	Tag

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■ ATA (Air Transport Association of America) Spec 2000 Chapter 9-5

- This tool is designed to read and write data from and to tags in compliance with the specification for Radio Frequency Identification (RFID) on Parts in ATA Spec2000 Chapter 9-5.

■ High Risk Activity

- This product is designed and manufactured as contemplated for general use, including without limitation, general office use, personal use and household use, but is not designed and manufactured as contemplated for use accompanying fatal risks or dangers that, unless extremely high safety is secured, could lead directly to death, personal injury, severe physical damage or other loss (hereinafter called "High Safety Required Use"), including without limitation, nuclear reaction control, aircraft flight control, air traffic control, mass transport control, life support, and weapon launch control. The customer shall not use this product without securing the sufficient safety required for the High Safety Required Use.

■ Notes on export procedures

- When exporting or providing this product and this document, check the regulations under the Foreign Exchange and Foreign Trade Law and the laws and regulations relating to US export control, and complete the necessary procedures.

■ Screenshots and illustrations

- The screenshots and illustrations in this document are only examples, and the actual screens may be slightly different depending on the environment that you are using.
- The screenshots used in the explanations in this document are from a Windows 7 environment.

■ Other Notes

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■ Revision history

Edition	Date issued	Changes
Version 1.20	September 2015	Initial version released. Add Commissioning by Barcode Scanning and Batch Commissioning
Version 1.21	October 2015	Small changes.
Version 1.22	October 2016	For the first enhancement in 2016
Version 1.30	March 31, 2017	Enhancement for ATA Spec 2000 Rev.2016 support

Contents

1 Function Overview of Commissioning by Barcode Scanning

1.1   Overview

This application can extract data records from a database using references specified in barcodes in order to initialize RFID tags with the data in compliance with the ATA formats specified in ATA Spec2000 Chapter 9-5 and print the labels on the RFID tags using a RFID printer.

1.2   Function List

The following table lists the functions of this application.

Name	Overview
Commissioning by Barcode Scanning	Extract data records from barcodes and a database using reference specified in barcodes in order to initialize RFID tags with the data in compliance with the ATA formats specified in ATA Spec2000 Chapter 9-5 and print the labels on the RFID tags using RFID printer.
Configurations	Configuration settings for this application.

1.3 Suite of User Manuals

The user manuals for this tool are organized as follows:

Manual title	Description
RFID Label Design and Encoding Management Pro User's Guide (Manual Input)	• Explains how to use the Manual Input application of "RFID Label Design and Encoding Management Pro".
RFID Label Design and Encoding Management Pro User's Guide (Commissioning by Barcode Scanning)	• This document • Explains how to use the Commissioning by Barcode Scanning application of "RFID Label Design and Encoding Management Pro".
RFID Label Design and Encoding Management Pro User's Guide (Commissioning from Integrated Sources)	• Explains how to use the Commissioning from Integrated Source application of "RFID Label Design and Encoding Management Pro".
RFID Label Design and Encoding Management Pro User's Guide (Batch Commissioning)	• Explains how to use the Batch Commissioning application of "RFID Label Design and Encoding Management Pro".

Manual title	Description
RFID Data Management Pro & RFID Label Design and Encoding Management Pro User's Guide (Appendixes)	• Explains the usage methods and provides additional information about the "RFID Data Management Pro" and "RFID Label Design and Encoding Management Pro".

1.4 Messages

Messages may be displayed in pop-up dialog boxes, depending on conditions encountered during processing.

When an error is displayed, the normal processing is suspended. Please refer to section "4 Troubleshooting" for information on the messages displayed in the pop-up dialog box, and for guidance on how to eliminate the cause of the error.
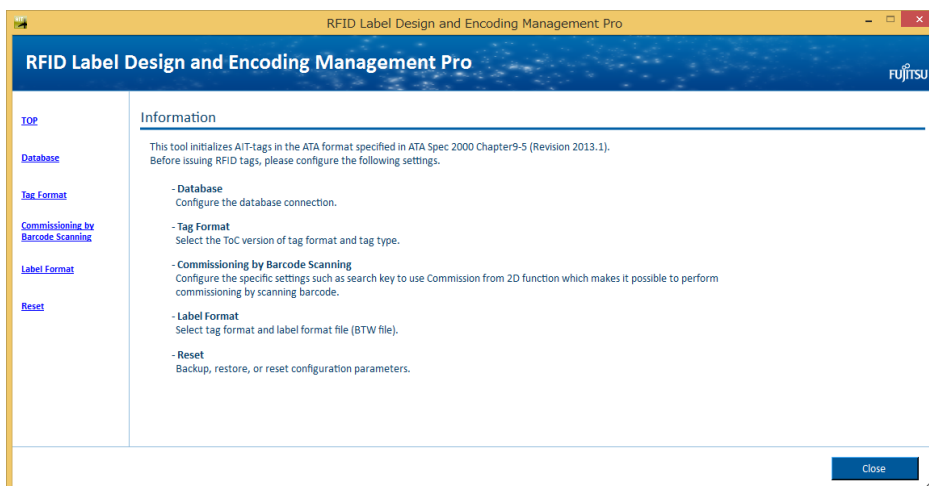
If the cause of the error cannot be identified, please make an inquiry to Fujitsu Customer Support.

2 Configurations

2.1 Overview

This section explains how to set configurations parameters of this application.

The Configuration menu has 6 options displayed on the left-hand side of the screen. Clicking on a menu option brings up a specific dialog screen to define parameters.


Menu Option	Description
TOP	This option is selected by default to show the brief descriptions about configuration options.
Database	This option is used to configure the database connection to the database that stores parts information for the tag commissioning. This application uses an ODBC driver for the database connection. Please refer to the section "2.2.2 Database Connection Settings" for details.
Tag Format	This option is used to define customized tag formats by adding TEIs to the ATA formats specified in ATA Spec2000 Chapter 9-5. Please refer to the section "2.2.3 Tag Format Settings" for details.
Commissioning by Barcode Scanning	This option is used to set application parameters for the Commissioning by Barcode Scanning application. Please refer to the section "2.2.4 Settings Specified to Commissioning by Barcode Scanning" for details.
Label Format	This option is used to specify encoding and printing data configuration. Please refer to the section "2.2.5 Label Format Settings" for details.

| Reset	This option is used to reset all configuration parameters to their default at installation time, or backup and restore the current configurations. Please refer to the following sections for details. - "2.2.6 Backup Configurations" - "2.2.7 Restore Backup Configurations" - "2.2.8 Initialize Configurations"

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2.2 Operating Procedure for Settings

2.2.1 Start Settings

(1) Click the **Settings** button on the Commissioning by Barcode Scanning screen (see below) to move to the configurations menu. Please refer to section "3 Commissioning by Barcode Scanning" for the operating procedure to start Commissioning by Barcode Scanning application.
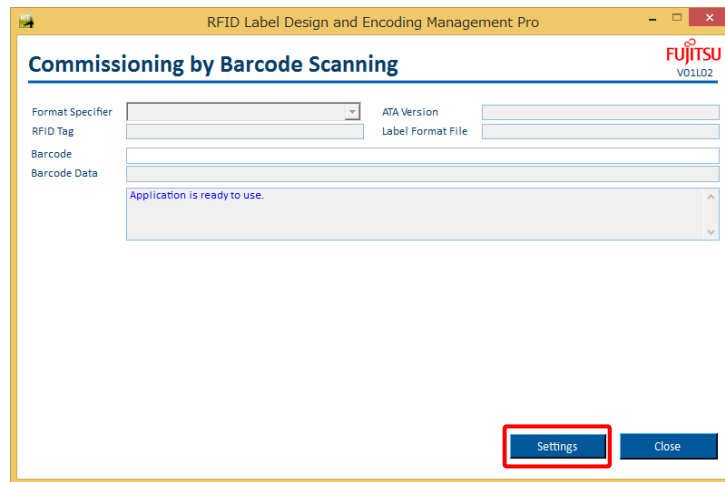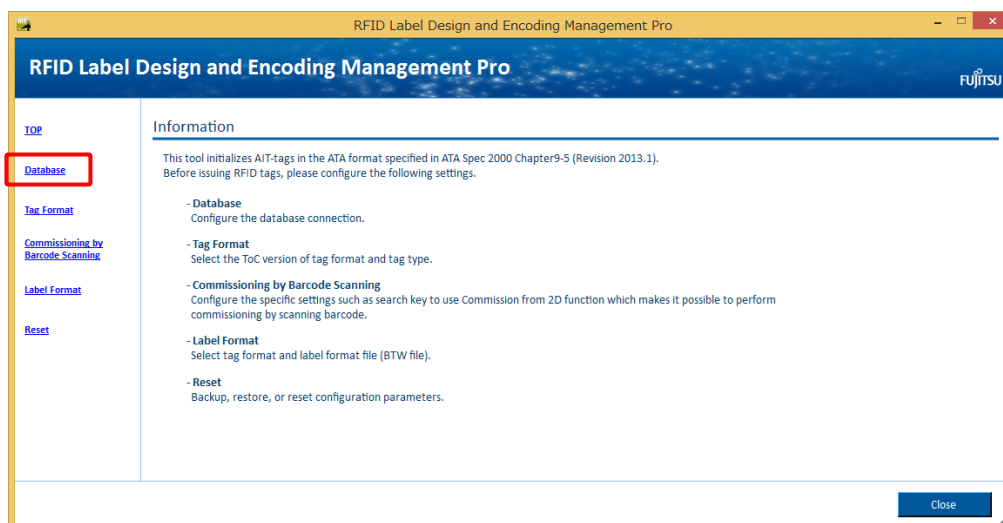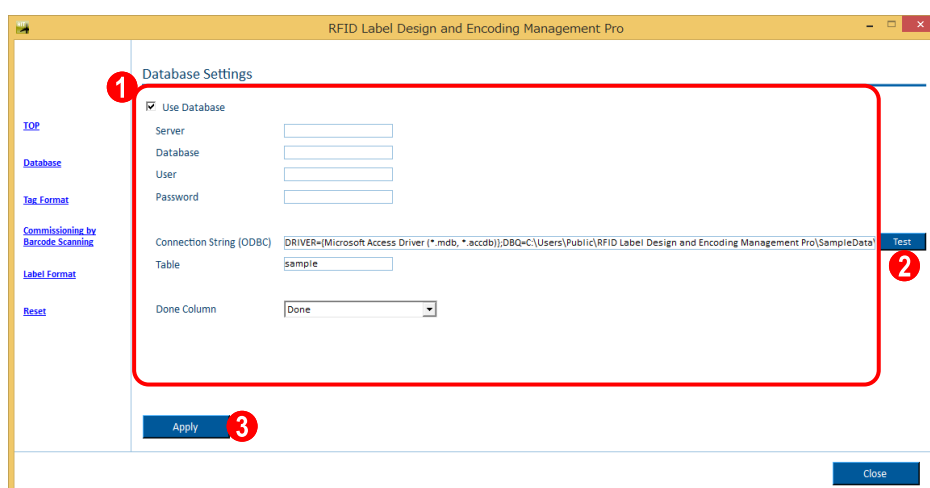

(2) The following configurations menu is displayed.
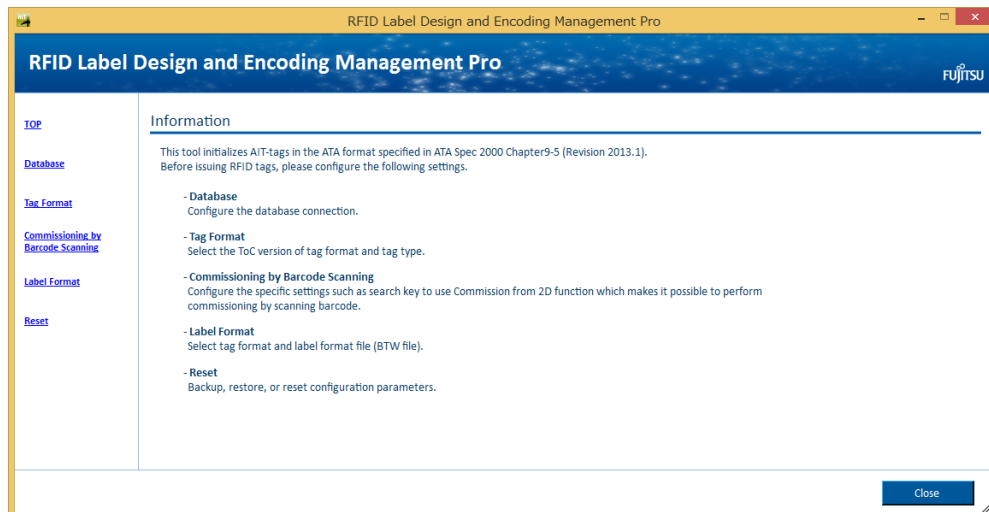
2.2.2 Database Connection Settings

(1) Click the **Database** on the left-side menu.

(2) The following sceen is displayed.

Specifiy values for each data field and click the **Apply** button to save the settings.

❶ **Setting Items**

The following items are used to set the ODBC connection string. When specified, the corresponding attributes are automatically inserted in the **Connection String (ODBC)** field.

Item	Description
Server	Server name (SERVER attribute)
Database	Database name (DATABASE attribute)
User	User name (UID attribute)
Password	Password (PWD attribute)
Use Database	The check-box is enable to extract data from database.
Connection String (ODBC)	ODBC connection string for the database connection (required). See Caution note below.

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Table	Database table where the parts information for tag commissioning is stored (required)
Done Column	Column in the database table where the commissioning date is to be stored (if not setting this item, commission date will not be recorded in the database)

! Caution   It is necessary to confirm the database connection before setting **Done Column** by clicking the **Test** button.

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❷ **Test** button

This button is used to test the database connection using the specified connection string.

❸ **Apply** button

This button is used to save the database connection settings.

☐ **Reference:**   Connection to the sample database for Microsoft Access is configured as default. A sample database for Microsoft Excel is also available for setting. The following tables show the configurations to connect the sample database.

[Configurations to connect the sample database for Microsoft Access]

Item	Value
Connection String (ODBC)	DRIVER={Microsoft Access Driver (*.mdb, *.accdb)};DBQ=C:\Users\Public\RFID Label Design and Encoding Management Pro\SampleData\sample.accdb;
Table	sample

[Configurations to connect the sample database for Microsoft Excel]

Item	Value
Connection String (ODBC)	DRIVER={Microsoft Excel Driver (*.xls, *.xlsx, *.xlsm, *.xlsb)};DBQ=C:\Users\Public\RFID Label Design and Encoding Management Pro\SampleData\sample.xlsx; ReadOnly=false;
Table	sample$

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☐ **Reference:** Other databases than Microsoft Access and Excel can be used if the required ODBC driver (32-bit) is installed on the PC.

[Example： Connection settings to SQL Server]

| Item	Value
Connection String (ODBC)	DRIVER={SQL Server};SERVER=[server name];DATABASE=[database name];UID=[user name];PWD=[password];
Table	[Table name]

☐ **Reference:** The database table used to have part data needs to meet the following requirements.

| Requirement	Remarks
The database table needs to have a specific column to manage label formats (the column is defined as the **Format Specifier**).	Please refer to "2.2.5 Label Format Settings" for the details of label format.
The database table needs to have a specific column set as a **date field** where the commissioning date is to be stored (the column is defined as the **Done Column**).	Required only if using "Done Column".
The database table needs to have columns set as **string fields** where the TEI elements complying with ATA Standards are stored.	Date elements need to be stored in the "YYYYMMDD" format.
The database table needs to have a specific column to identify a record (the column is defined as Search Key in "2.2.4 Settings Specified to Commissioning by Barcode Scanning").	

2.2.3 Tag Format Settings

2.2.3.1 Tag Format List Screen

(1) Click the **Tag Format** on the left-side menu.
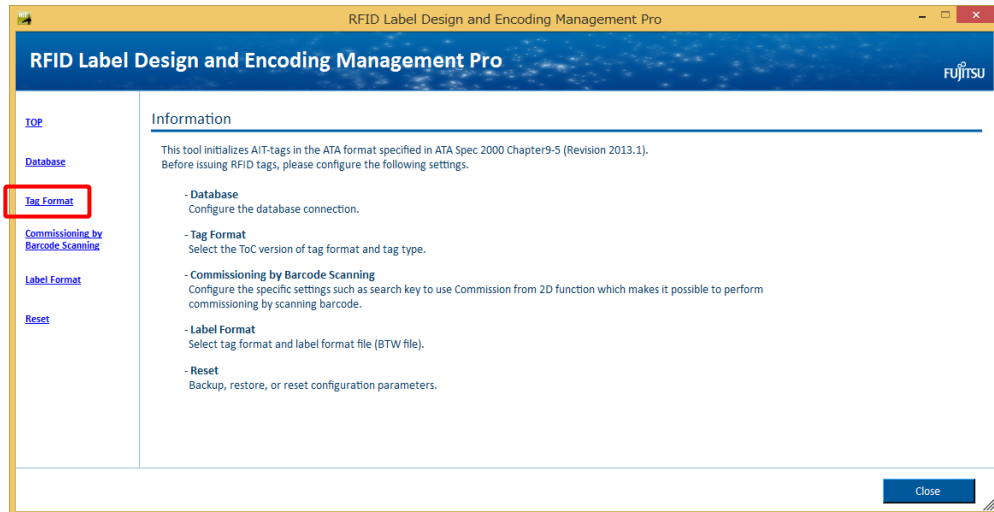
(2) The following screen is displayed.

Edit the settings and click the **Apply** button to save the settings.
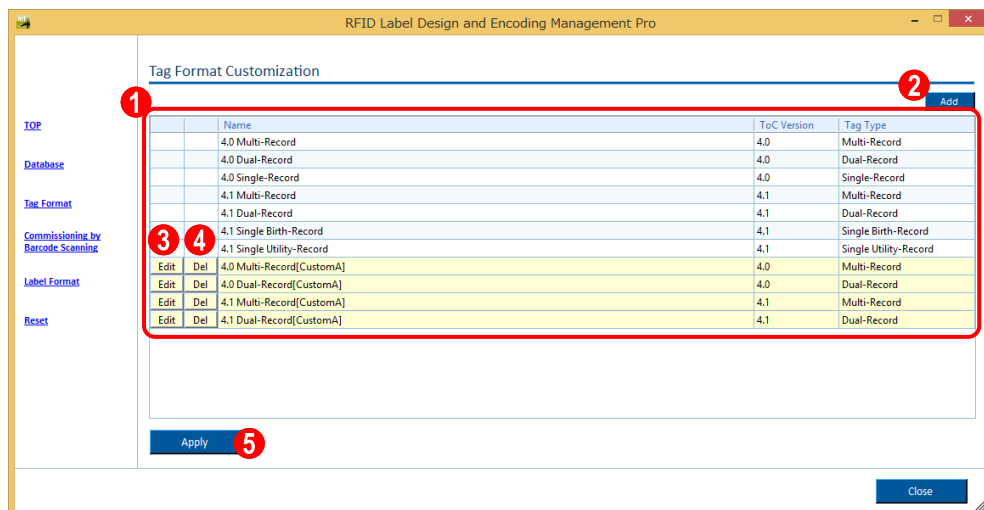
❶ **Tag format** list

This field displays the currently defined tag formats.

❷ **Add** button

This button is used to add a new tag format. Please refer to section "2.2.3.2 Tag Format Details Screen (Adding)" for the details.

❸ **Edit** button

This button is used to modify the corresponding customized tag format. Please refer to section "2.2.3.3 Tag Format Details Screen (Modifying)" for the details.

❹ **Del** button

This button is used to delete the corresponding customized tag format.

❺ **Apply** button

This button is used to save the changes on tag formats.

! Caution	・Only customized tag formats can be modified or deleted.
	・Please do not modify or delete the tag format when it is used by label format settings. If you do so, it will be necessary to re-configure the TEI source settings (please refer to section "2.2.4 Label Format Settings" for the label format and TEI source settings).

2.2.3.2 Tag Format Details Screen (Adding)

(1) Enter the format name and select the base format.

❶ **Name**

This field is used to enter the customized tag format name.

❷ **Base Format**

This dropdown list is used to select the base tag format from the followings.
- ・4.0 Multi-Record
- ・4.0 Dual-Record
- ・4.0 Single-Record"
- ・4.1 Multi-Record
- ・4.1 Dual-Record
- ・4.1 Single Birth-Record
- ・4.1 Single Utility-Record

(2) TEIs of the selected base format are displayed on a list.

Add TEIs to this list and click the **OK** button.

❶ **TEIs** list

This area displays a list of TEIs (added TEIs are colored in yellow and can be modified).

Column	Description
Record Type	Record type of the TEI
TEI	The name of TEI
M / C / O	Mandatory / Conditional / Optional. Conditional TEIs are set as "C". Added TEIs are set as "O".
Min	Minimum length of the TEI
Max	Maximum length of the TEI

❷ **Add** button

This button is used to add a new TEI. The added TEI is inserted the last line of the TEIs list.

❸ **Del** button

This button is used to delete the added TEI.

❹ **OK** button

This button is used to move back to tag format list screen.

! Caution   It is necessary to click the **Apply** button on the tag format list screen to save the added tag format(s).

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❺ **Cancel** button

This button is used to discard the changes on tag format and move back to tag format list screen.

2.2.3.3 Tag Format Details Screen (Modifying)

(1) TEIs of customized tag format can be modified on this screen same as the adding.
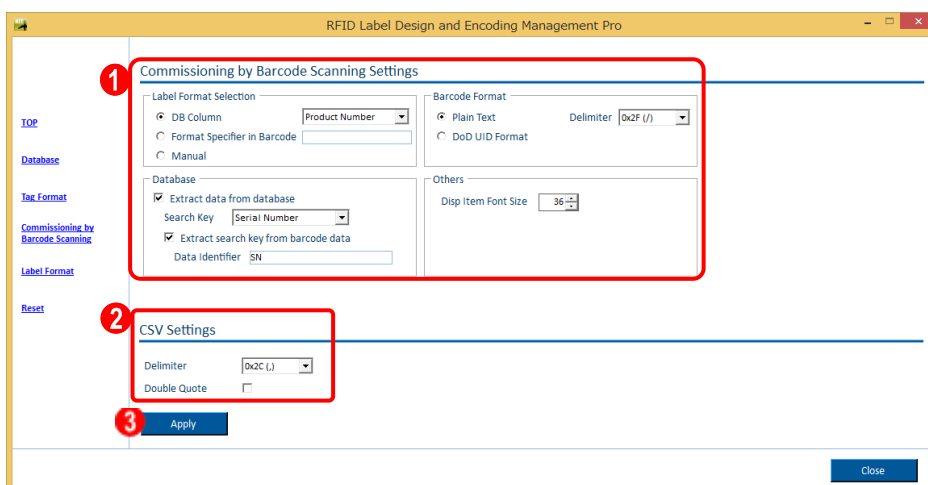Edit and save the TEI definitions same as for addition to a customized tag format.

2.2.4 Settings Specified to Commissioning by Barcode Scanning

(1) Click the **Commissioning by Barcode Scanning** on the left-side menu.
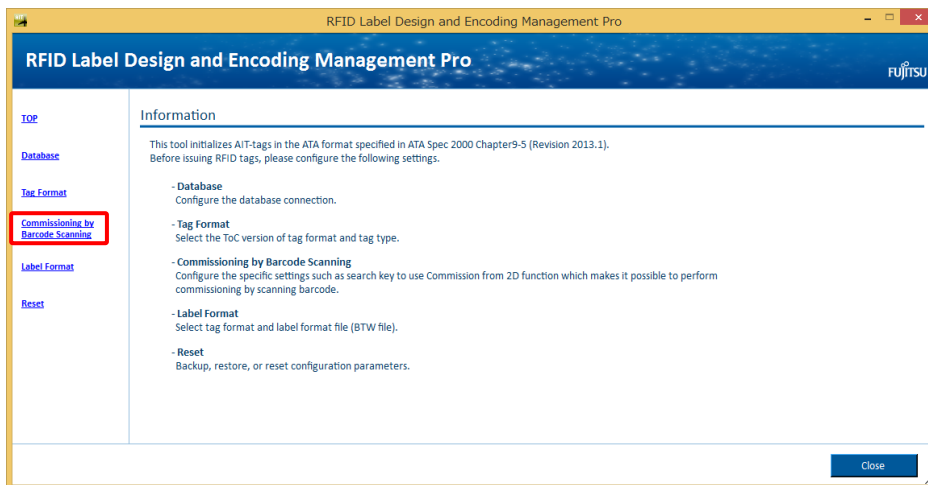
(2) The following screen is displayed.

Enter the displayed fields and click the **Apply** button to save the settings.

❶ **Commissioning by Barcode Scanning Settings**

Item	Description
Label Format Selection	This item is used to select how to specify the Label Format defined in "2.2.5 Label Format Settings". There are 3 options as below. ・**DB Column**: Use the values in the specified column as the Label Format names. In the case of using this option, it is necessary to enable the **Extract data from database**. ・**Format Specifier in Barcode**: Use one of the data elements in barcode as the Label Format Names. ・**Manual**: Manually select the Label Format.
Barcode Format	This item is used to select the barcode data format from following 2 options. The application extracts data elements according to the selected data format. ・**Plain Text**: Extract data elements by separating the selected "Delimiter". Data name and its value needs to be separated by a space " ". 　<Example: using slash ("/": "0x2F"　as the "Delimiter" > 　[barcode data] : SN 000001/PN FJAIT1000 　The following data elements are extracted. 　[data 1] data name: SN　　value: 000001 　[data 2] data name: PN　　value: FJAIT1000 ・**DoD UID Format**: Extract data elements according to ISO/IEC 15434 data format.
Database	Settings to use database as a data source. ・**Extract data from database**: This check box is used to enable database connection. If enabled, it is also necessary to enable the **Use Database** in "2.2.2 Database Connection Settings". ・**Search Key**: Column of the database table to be used to locate a part record. ・**Extract search key from barcode data**: This checkbox is used to use one of the data element from barcode as the search key of database. If not enabled, the whole text from barcode is regarded as the search key. ・**Data Identifier**: Sequence of characters immediately preceding the search key value.
Others	・**Disp Item Font Size**: Font size of part information displayed on the main scree when commissioning a tag.

❷ **CSV Settings**

Delimiter: this box is used to set a delimiter character of CSV file.

Double Quote: this check box is used to select whether each of data entries in CSV file are enclosed with double quotes or not.

❸ **Apply** button

This button is used to save the changes to Commissioning by barcode scanning.

! Caution	・If the data is not enclosed with double quotes, the delimiter character can not be included in data itself. ・If delimiter is changed, it is necessary to execute **Refresh Field Names** from **Database Connection Setup** menu in the BTW file.

| ☐ **Reference:**	The text below provides an example of an "Extract search key from barcode data" Assuming the following parameters have been set: • Target String: **SN** • Delimiter: **/** When the following string is read from the 2D barcode, SN FJAIT1001-8KL-E/PN AIT-T8KELX0000E the string "FJAIT1001-8KL-E" is set as the search key. (Start point of extraction is defined as the text starting after "SN" and ending at the delimiter "/".)

2.2.5 Label Format Settings

2.2.5.1 Label Format List Screen

(1) Click the **Label Format** on the left-side menu.
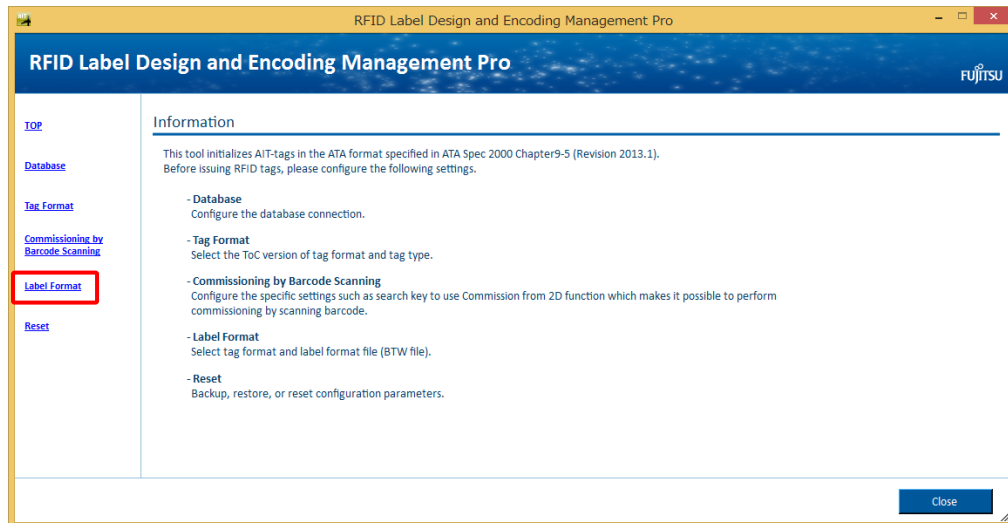
(2) The following screen is displayed.

Edit the settings and click the **Apply** button to save the settings.
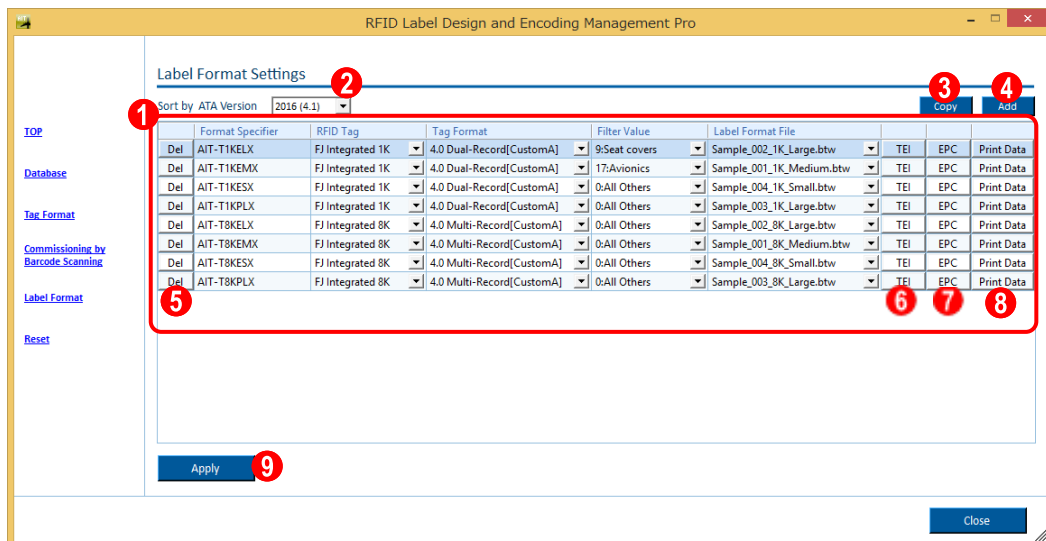
❶ **Label Format** list

This area displays a list of currently set label formats.

Column	Description
Format Specifier	The name of the label format.
RFID Tag	RFID tag selected from "FJ Integrated 8K", "FJ Integrated 1K", and "Single 128word."
Tag Format	Tag format (please refer to section "2.2.3 Tag Format Settings" for the details.

Filter Value	Filter value to be written on RFID tag
Label Format File	Label format file (BTW file).

! Caution   Label format file (BTW file) needs to be located in the following folder:

C:\Users\Public\RFID Label Design and Encoding Management

Pro\CommissionData

❷ **Sort by ATA Version**

This dropdown is used to select ATA revision which is displayed in upper rows of the list.

❸ **Copy** button

This button is used to copy the label format. The copied format will be added in the bottom row (the Format Specifier will be in blank).

❹ **Add** button

This button is used to add a new label format. The added label format is inserted in the list.

❺ **Del** button

This button is used to delete the corresponding label format.

❻ **TEI** button

This button is used to set TEIs data source. Please refer to section "2.2.5.2 TEIs Data Source Settings Screen" for the details.

❼ **EPC** button

This button is used to set EPC data source. Please refer to section "2.2.5.3 EPC setting" for the details.

❽ **Print data** button

This button is used to set print-only data (not encoded). Please refer to section "2.2.5.4 Editing Print-only Data screen" for the details.

❾ **Apply** button

This button is used to save the changes on label formats.

! **Caution**   ・TEIs data source setting and EPC setting is necessary for activating the label format.

2.2.5.2 TEIs Data Source Settings Screen

(1) Data source for each TEI is configured on the following screen.

Select a **Source** for each TEI, set the corresponding column, and then click the **OK** button.

❶ **TEIs Data Source** list

This area displays a list of TEIs and the data source defined in the selected tag format.

Column	Description
Record Type	Record Type of the TEI (unmodifiable)
Use	This check-box is used to determine whether or not the TEI is to be written to the tag.
TEI	In case of the selectable TEIs, this dropdown is used to select the TEI.
M / C / O	Mandatory / Conditional / Optional (unmodifiable). The TEIs of "M" need to be checked on Use check-box.
Source	This dropdown is used to select the data source for each TEI. ·**DB**: Extract data from database. The source column is specified in the **DB Column** field. ·**Barcode**: Extract data from barcode. The corresponding data name is specified in the **Barcode Data Identifier** field. ·**Fixed**: Use the same value for every commissioning. The value is set in the **Fixed Value** field. ·**Today**: Set the date when the commissioning is performed as data (YYYYMMDD format). Only available for "DMF". ·**Manual**: Manually enter the data value.

DB Column	Column of the database table which is used as the data source for the TEI. This item is required to be configured in the case that the **DB Column** is selected in the **Source** field.
Barcode Data Identifier	Data name in barcode which is used as the data source for the TEI. This item is required to be configured in the case that **Barcode** is selected in the **Source** field.
Fixed Value	Value to be set to the TEI. This item is required to be configured in the case that **Fixed** is selected in the "Source" field.
☑ Disp Item	TEIs to be displayed with the defined strings on the main screen of Commissioning by Barcode Scanning. Total of 3 items from TEIs and EPC settings can be selected at a maximum.

❷ **OK** button

This button is used to move back to label format list screen.

! Caution	It is necessary to click the **Apply** button on tag format list screen to save the added tag format.

❸ **Cancel** button

This button is used to discard the changes on tag format and move back to tag format list screen.

2.2.5.3 EPC setting

(1) Set EPC information on the following screen. In the following cases, the EPC setting is required.

・Not use "MFR/SPL" on the TEIs data source settings screen

・Not use "PNO" on the TEIs data source settings screen

・Not use "SER/SEQ/UCN" on the TEIs data source settings screen

❶ **EPC Header**

This area shows the EPC Header information.

❷ **Filter Value**

This area is used to choose the way to get the Filter Value.

・**Fixed Value**: Use the same value which is set on the "2.2.5.1　Label Format List Screen".

・**DB Column**: Extract the value from database (the column of the database table needs to be specified).

・**Barcode Data Identifier**: Extract the value from barcode (the data name in the barcode needs to be specified)

・**Manual Input**: Manually enter Filter Value at every commissioning.

! Caution	The "Disp Item" is not used in the Commissioning by Barcode Scanning application.

❸ **Manager Number CAGE/DoAAC**

This area is used to choose the way to get "Manager Number CAGE/DoAAC"

・**Same value with MFR/SPL In Birth Record/Utility Record**: Use same value with MFR/SPL in Birth Record or Utility Record.

・**DB Column**: Extract the value from database (the column of the database table needs to be specified).

・**Barcode Data Identifier** : Extract the value from barcode (the data name in the barcode needs to be specified).

・**Fixed Value**: Use the same value for every commissioning.

・**Manual Input**: Manually enter Filter Value at every commissioning.

! Caution	The "Disp Item" is not used in the Commissioning by Barcode Scanning application.

❹ **Original Part Number**

This area is used to choose the way to get "Original Part Number".

・**Same value with PNO In Birth Record/Utility Record**: Use same value with PNO in Birth Record or Utility Record.

・**DB Column** : Extract the value from database (the column of the database table needs to be specified).

・**Barcode Data Identifier**: Extract the value from barcode (the data name in the barcode needs to be specified).

・**Fixed Value**: Use the same value for every commissioning.

・**Manual Input**: Manually enter Filter Value at every commissioning.

・**Not Use**: Not include the Original Part Number in EPC.

! Caution	The "Disp Item" is not used in the Commissioning by Barcode Scanning application.

❺ **Alphanumeric Serial Number**

This area is used to choose the way to get "Alphanumeric Serial Number".

・**Same value with SER/SEQ/UCN In Birth Record/Utility Record**: Use same value with SER/SEQ/UCN in Birth Record or Utility Record.

・**DB Column**: Extract the value from database (the column of the database table needs to be specified). In this case, "#" will be added to the head of the string.

・**Barcode Data Identifier:** Extract the value from barcode (the data name in the barcode needs to be specified).

・**Manual Input**: Manually enter Filter Value at every commissioning.

! Caution	The "Disp Item" is not used in the Commissioning by Barcode Scanning application.

❻ **OK** button

This button is used to move back to label format list screen.

! Caution	It is necessary to click the **Apply** button on tag format list screen to save the added tag format.

❼ **Cancel** button

The EPC setting under the edit is canceled and it returns to the label format list screen. (Please make sure to click the **Apply** button on the label format list screen to save the fixed setting)

2.2.5.4 Editing Print-only Data screen

(1) Set print-only data on the following screen.

Edit the settings and click the **Apply** button to save the settings.

☐ **Reference:** ・Print-only data is not encoded into RFID but printed on label surface. The information is added to the CommissionData.csv and it is necessary to set the BTW file to refer to the column.

❶ **Print-only Data** list

This area displays a list of print-only data and the data source defined in the selected tag format.

Column	Description
CSV Column Name	Header name in the CommissionData.csv.
Source	This area is used to choose the way to get print-only data. ・**DB**: Extract the value from database (the column of the database table needs to be specified). ・**Barcode**: Extract the value from barcode (the data name in the barcode needs to be specified). ・**Fixed**: Use the same value for every commissioning. The value is set in the "Fixed Value" field.
DB Column	Column of the database table which is used as the data source for the print-only data. This item is required to be configured in the case that **DB** is selected in the **Source** field.
Barcode Data Identifier	Data name in barcode which is used as the data source for the print-only data. This item is required to be configured in the case that **Barcode** is selected in the **Source** field.

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Fixed Value	Value to be set to the print-only data. This item is required to be configured in the case that **Fixed** is selected in the **Source** field.

❷ **OK** button

This button is used to move back to label format list screen.

> ! Caution   It is necessary to click the **Apply** button on tag format list screen to save the added tag format.

❸ **Cancel** button

The print-only data setting under the edit is canceled and it returns to the label format list screen. (Please make sure to click the **Apply** button on the label format list screen to save the fixed setting).

2.2.6 Backup Configurations

(1) Select **Reset** from a category on the left side and then click the **Backup** button.
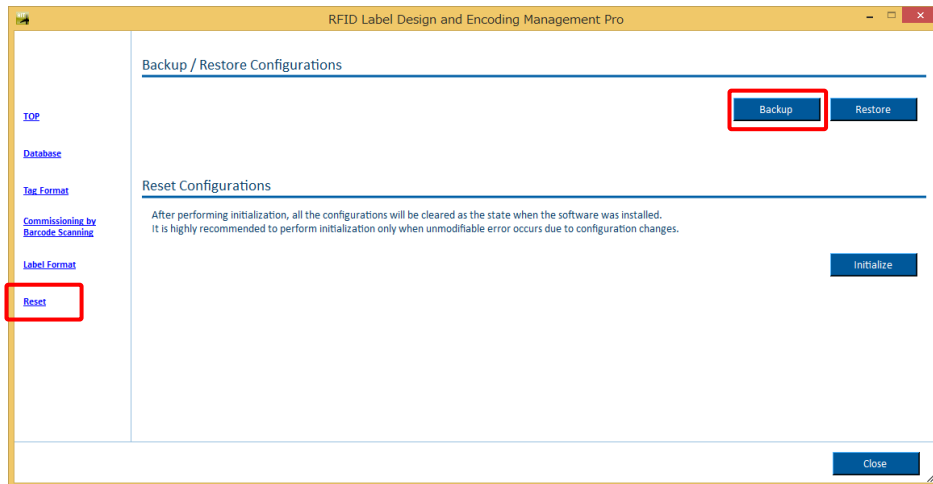
(2) The confirmation message is displayed. Click the **OK** button.
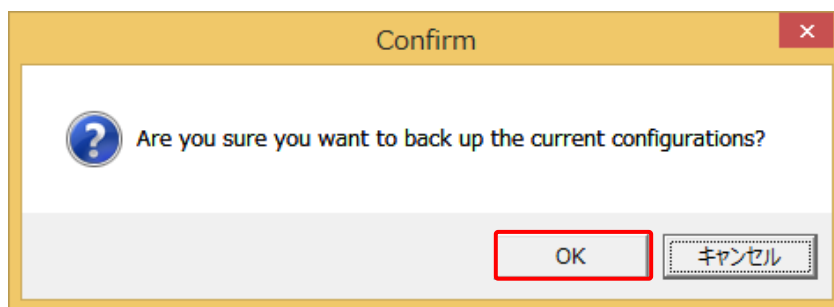
(3) After specifying the destination folder, backup is automatically performed and "Backup.zip" is created in the folder you specified. After the backup is completed, an information dialog is displayed and then click the **OK** button.

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2.2.7 Restore Backup Configurations

(1) Select **Reset** from a category on the left side and then click the **Restore** button.
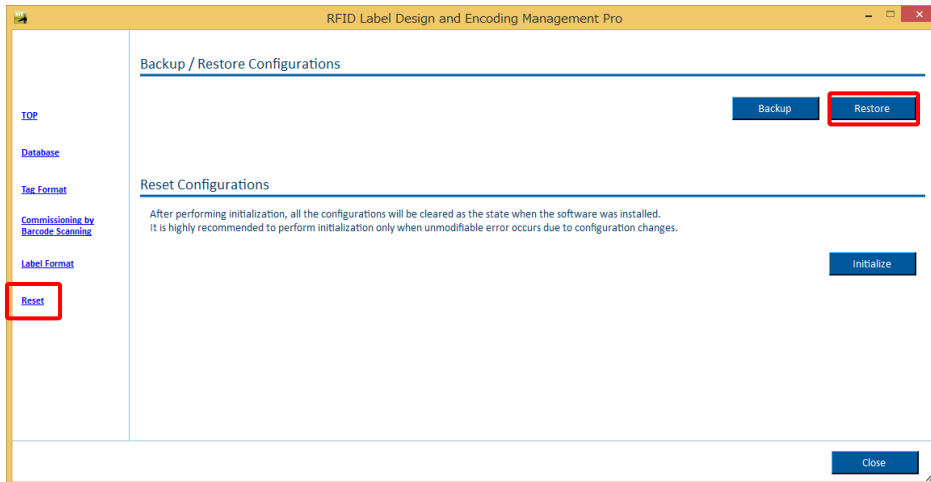
(2) The confirmation message is displayed and then click the **OK** button.
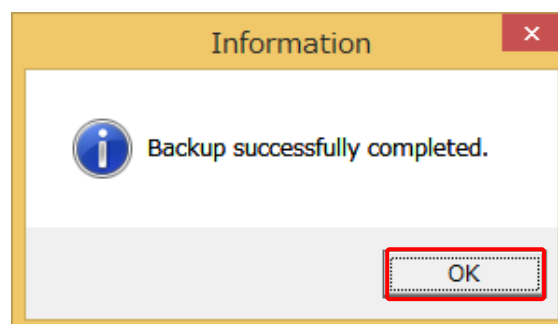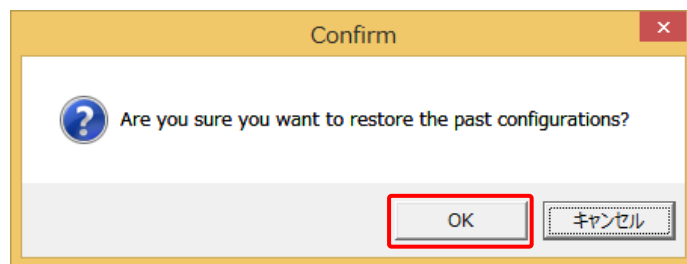

(3) Select the "Backup.zip" file that you made in "2.2.6 Backup Configurations" from file selection dialogue.

> □ **Reference:** ・In the case that the "Backup.zip" is created by older version, the following dialog is displayed and then click the **OK** button.
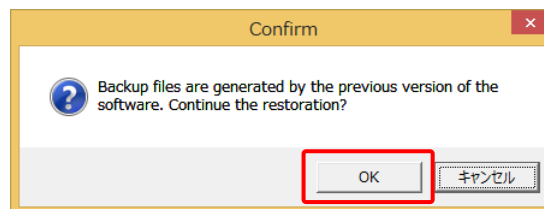
(4) After the restoration is completed, an information dialog is displayed and then click the **OK** button.
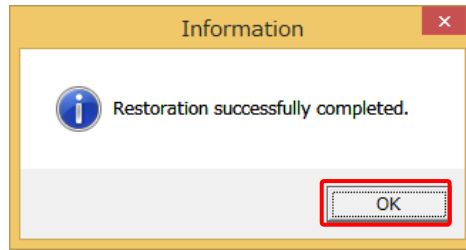
2.2.8 Initialize Configurations

(1) Select **Reset** on the left-side menu and click the **Initialize** button.
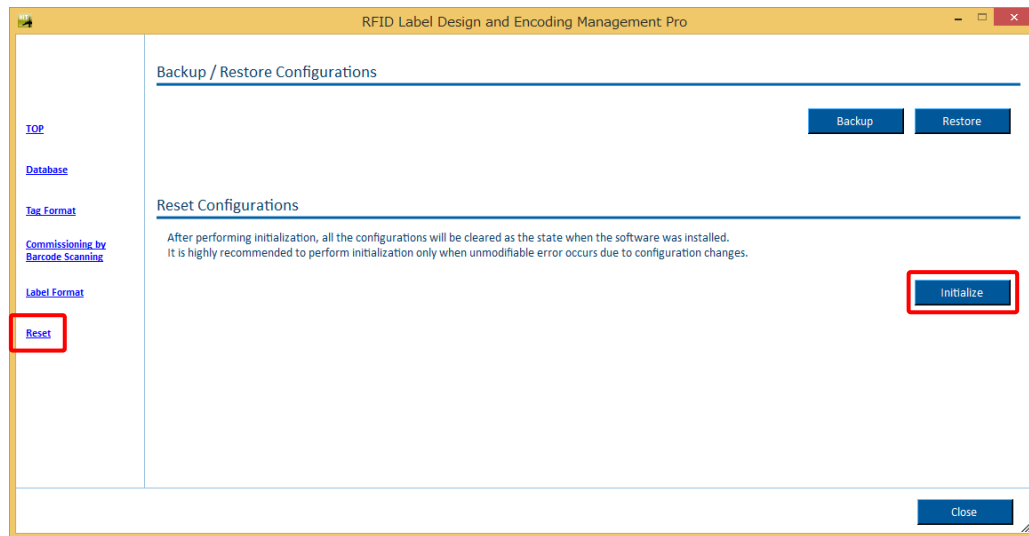
! Caution	・After performing initialization, all the configurations will be cleared as the state when the software was installed.
	It is highly recommended to perform initialization only when unmodifiable error occurs due to configuration changes.

2.2.9 Close Settings Menu

(1) Click the **Close** button.

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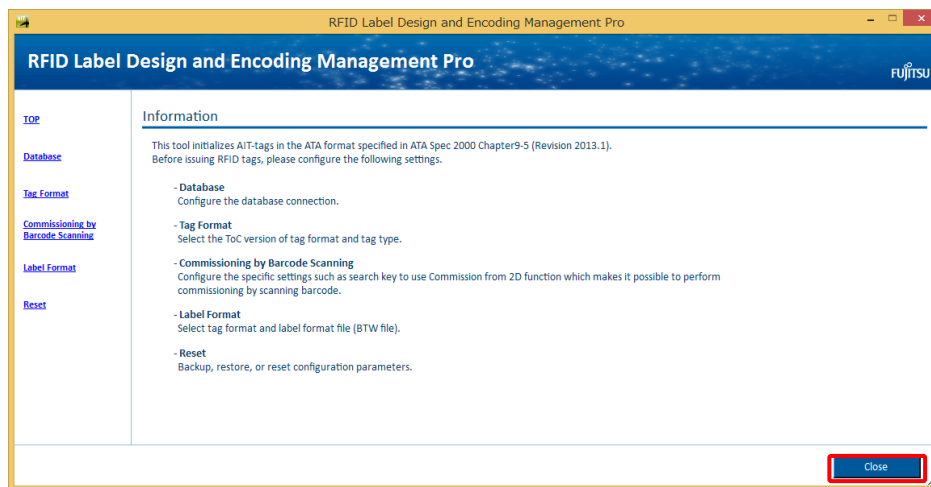
3 Commissioning by Barcode Scanning

3.1 Start and Stop the Application

3.1.1 Start the Application

(1) To start this application, click the icon of **RFID Label Design and Encoding Management Pro** that has been placed on the computer desktop.
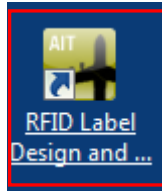
(2) Click the **Commissioning by Barcode Scanning**
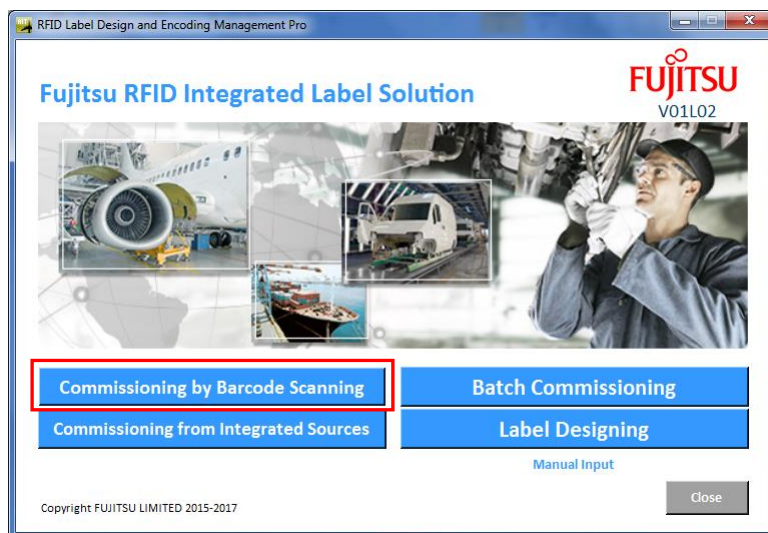
(3) The main screen of Commissioning by Barcode Scanning is displayed.
The message "Application is ready to use." displayed in the text box means the application is properly running.
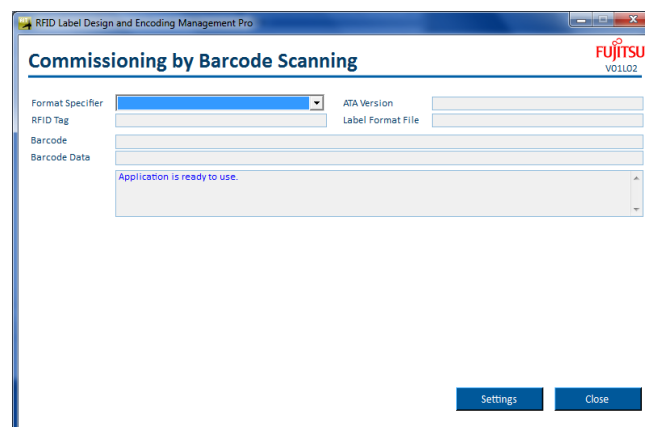
! Caution   ・Even if one attempts to start the application multiple times, only one screen for Commissioning by Barcode Scanning will be opened.

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3.1.1 Stop the Application

(1) To stop this application, click the **Close** button.
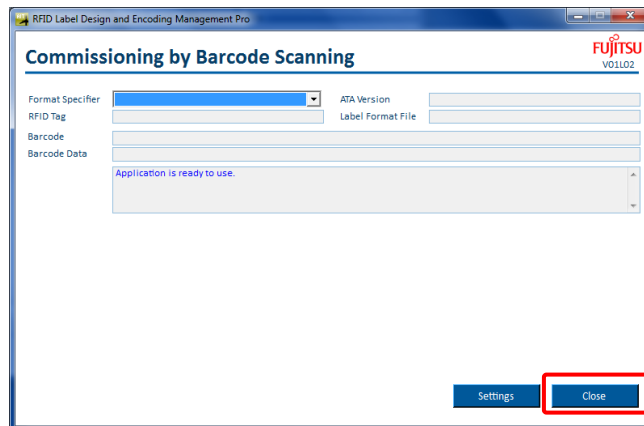
(2) Then click the **Close** button on the menu screen.
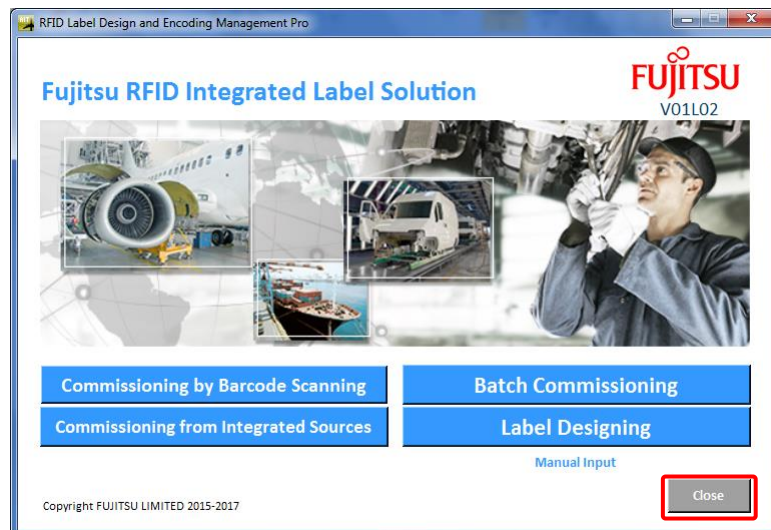
3.2 Use Commissioning by Barcode Scanning

3.2.1 Commission Tag (Manually Selecting Label Format)

(1) In the case that **Manual** is selected for **Label Format Selection**, select a label format from the **Format Specifier** dropdown.
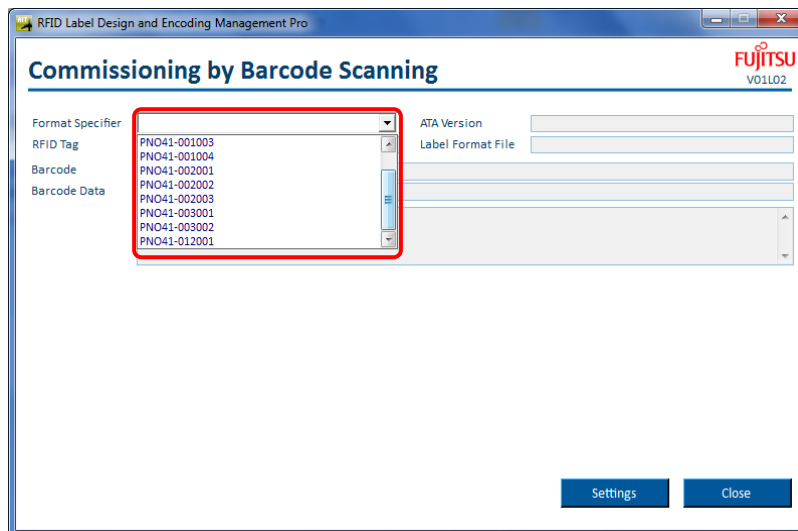
(2) Scan the barcode, putting the focus in the **Barcode.**
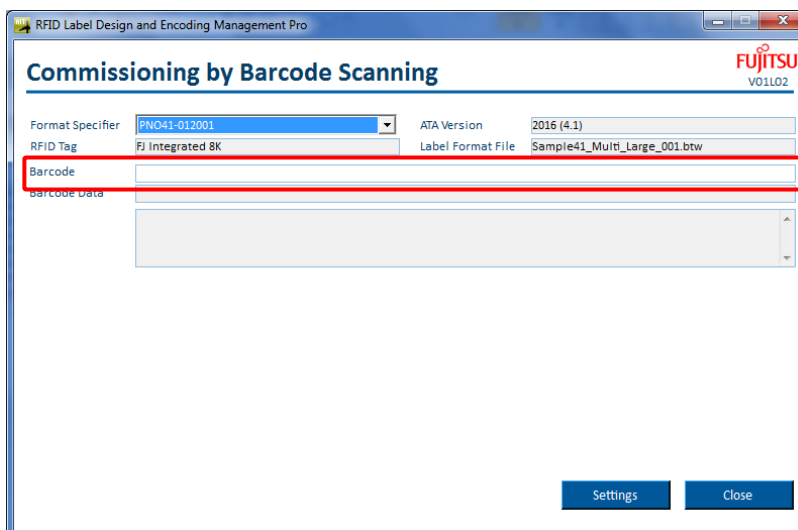
(3) The read barcode information is displayed in **Barcode** field.
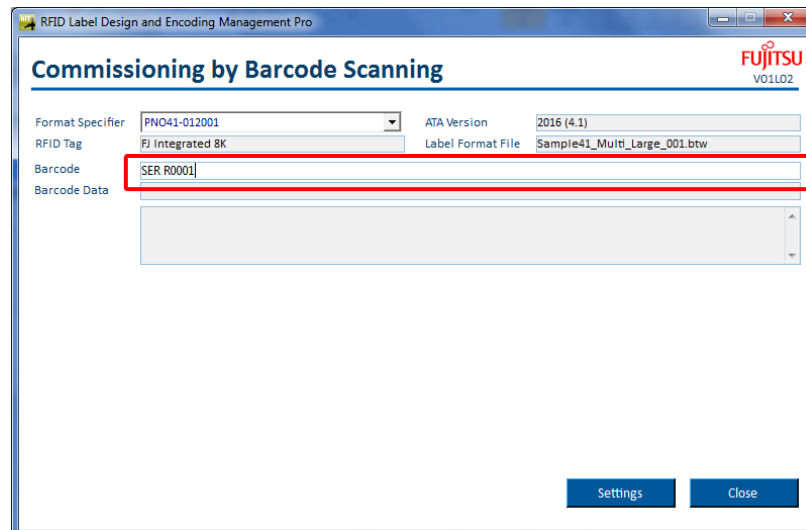
☐ **Reference:** Sample barcodes for using sample database are included in the following file:

C:\Users\Public\RFID Label Design and Encoding Management Pro\SampleData\sample.pdf

(4) Specified TEI values are extracted from database or barcode according to the TEIs source settings for the selected label format. The following information is displayed on the screen and the commissioning of the tag should start with the RFID printer.
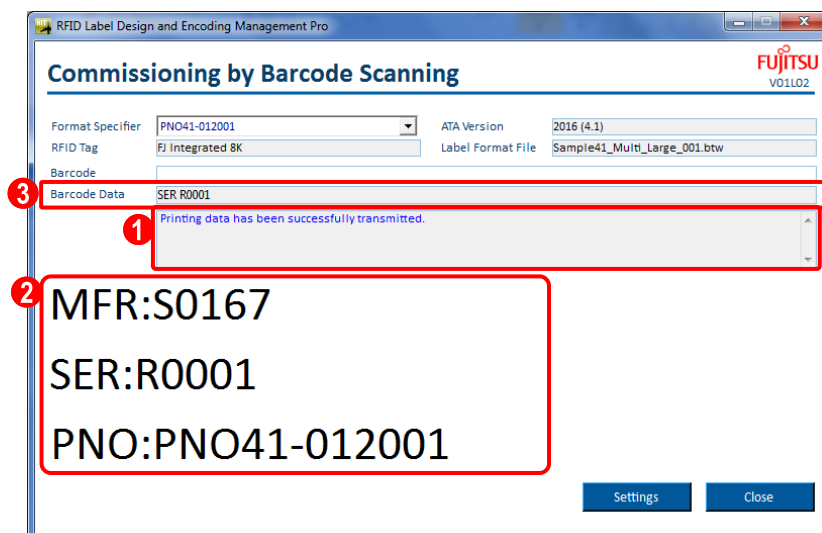
❶ **Message** area

This area displays the processing result.

In case of success, "Printing data has been successfully transmitted." is displayed.

If another message is displayed, tag commissioning is not been performed. Please refer to section "0 " for the details of error messages.

❷ **Part Information** area

This area displays the part information to be written on tag for the TEIs or EPC set as "Disp Item" in the Label Format Settings.

❸ **Barcode Data** area

This area displays the read barcode data.

Barcode field is cleared.

! Caution	・Please issue the label tag by the printer within three minutes after scanning barcode. After a lapse of three minutes, the print job will be automatically deleted from print queue. ・Please suspend issuing the tag when an error message is displayed after scanning barcode. ・When a timeout occurred before executing printing, the following dialog appears and the printing jobs are cancelled.
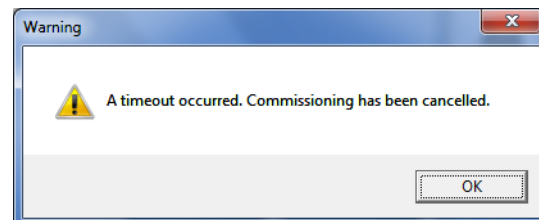
3.2.2 Commission Tag (Automatically Selecting Label Format)

In the case that either of **DB column** or **Format Specifier in Barcode** is selected for **Label Format Selection**, the label format will be automatically selected after reading barcode.

(1) Put the focus in the **Barcode field** and read barcode using a barcode reader**.**
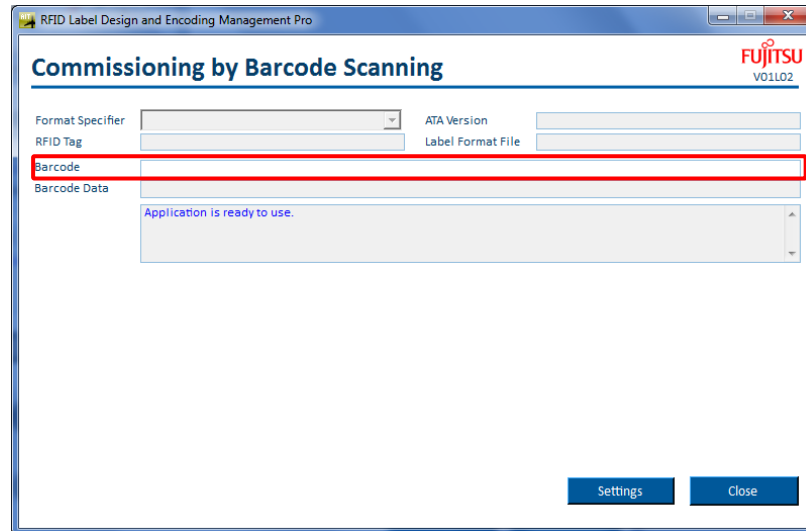
(2) Label format is automatically selected and the commissioning of the tag should start with the RFID printer.
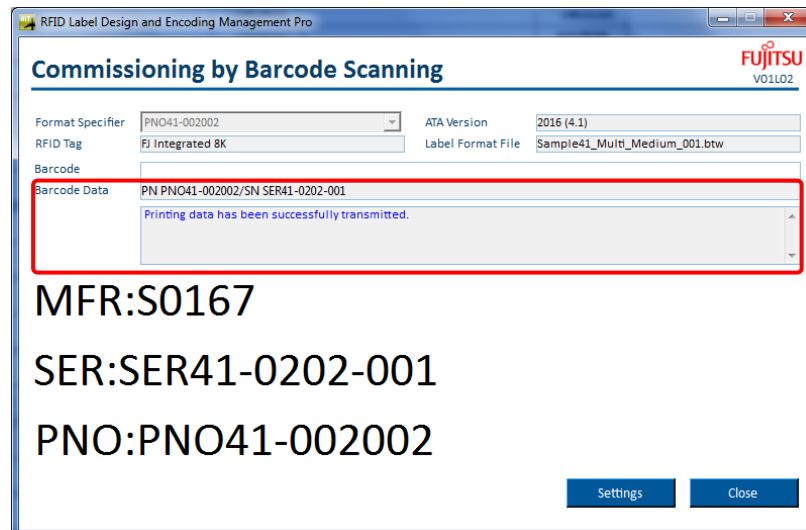
□ **Reference:**	・Displayed items are same with the case of manually selecting label format.
	Please refer to "3.2.1 Commission Tag (Manually Selecting Label Format)".

4 Troubleshooting

4.1 Messages and Corrective Actions While using Commissioning by Barcode Scanning

Messages are displayed in red or yellow characters on the following area.
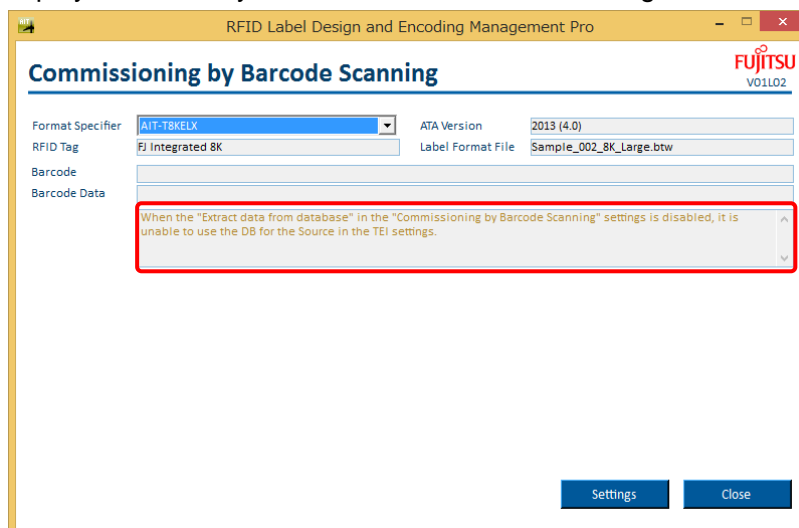
☐ **Reference:** • The message color indicates the possible cause of the error.

Yellow: The error is probably caused by an operation mistake on this application (example: "Please enter search key").

Red: The error probably occurred by another cause (example: "The connection to database failed. Please confirm the Database settings").

• The "XXX", "YYY", and "ZZZ" are replaced with other words to specify the problematic points in the actual message.

Message	Cause and Corrective Action
When the "Extract data from database" in the "Commissioning by Barcode Scanning" settings is enabled, it is also necessary to enable the "Use Database" in the "Database" settings.	This message is displayed if **Extract data from database** is enabled in settings specific to Commissioning by Barcode Scanning but **Use Database** is not enabled in the database connection settings. Please verify the database connection settings.
The connection to database failed. Please confirm the Database settings.	This message is displayed when this application failed to connect with database. Please verify the database connection settings.

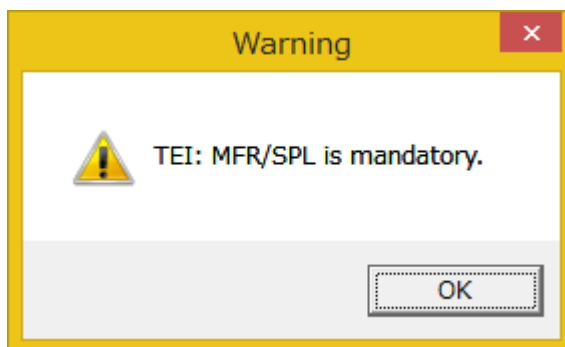| Message	Cause and Corrective Action
The column specified for the Search Key does not exist in the database. Please confirm the "Commissioning by Barcode Scanning" settings.	This message is displayed when the column specified for search key is not found. Please verify settings specific to Commissioning by Barcode Scanning.
The column specified for the Format Specifier does not exist in the database. Please confirm the "Commissioning by Barcode Scanning" settings.	This message is displayed when the column specified for format specifier is not found. Please verify settings specific to Commissioning by Barcode Scanning.
The column specified for the Done does not exist in the database. Please confirm the Database settings.	This message is displayed when the column specified for done column is not found. Please verify database connection settings.
The specified item Serial Number not found.	This message is displayed when data record specified by search key is not found in database. Please confirm barcode data.
Multiple items are found by the search key Serial Number.	This message is displayed when multiple data records are found by search key. Please verify search key column in database (values in the column need to be unique).
Please enter search key Serial Number.	This message is displayed when acquired barcode data is empty. Please verify that the correct barcode is read.
Search key could not be extracted from barcode data properly.	This message is displayed when search key is not extracted properly. Please confirm the **Data Identifier** in settings specific to Commissioning by Barcode Scanning.
Label format of the item [Format Specifier: XXX] is not defined.	This message is displayed when the label format for the part is not defined. Please verify label format settings.
There is no Format Specifier in the barcode data.	This message is displayed when format specifier is not extracted properly. Please verify the **Format Specifier in Barcode** in settings specific to Commissioning from Integrated Sources is correctly configured.
The barcode data format is invalid. Please confirm the Commissioning by Barcode Scanning settings.	This message is displayed when scanned barcode is not in the format defined in settings. Please verify the **Barcode Format** in the settings specific to Commissioning by Barcode Scanning.

Message	Cause and Corrective Action
When the "Extract data from database" in the "Commissioning by Barcode Scanning" settings is disabled, it is unable to use the DB for the Source in the TEI settings.	This message is displayed when the Extract data from database in settings specific to Commissioning by Barcode Scanning but DB is selected for the data source in TEIs data source settings. Please verify TEIs data source settings.
When the "Extract data from database" in the "Commissioning by Barcode Scanning" settings is disabled, it is unable to use the DB Column for the Source in the EPC settings.	This message is displayed when the **Extract data from database** in settings specific to Commissioning by Barcode Scanning is disabled but DB is selected for the data source in EPC settings. Please verify EPC settings.
When the "Extract data from database" in the "Commissioning by Barcode Scanning" settings is disabled, it is unable to use the DB for the Source in the Print Data settings.	This message is displayed when the **Extract data from database** in settings specific to Commissioning by Barcode Scanning is disabled but DB is selected for the data source in print-only data settings. Please verify print-only data settings.
In the "Commissioning by Barcode Scanning", it is unable to use the Manual for the Source in the TEI settings.	This message is displayed when **Manual** is selected for the data source. Please verify TEIs source settings.
In the "Commissioning by Barcode Scanning", it is unable to use the Manual for the Source in the EPC settings.	This message is displayed when **Manual** is selected for the data source. Please verify EPC settings.
The specified DB column for TEI does not exist in database.	This message is displayed when the column specified for TEI data source is not found. Please verify TEIs source settings.
The specified DB column for EPC does not exist in database.	This message is displayed when the column specified for EPC data source is not found. Please verify EPC settings.
The specified DB column for print data does not exist in database.	This message is displayed when the column specified for print-only data source is not found. Please verify print-only data settings.
Invalid item data. [Details: No data in mandatory TEI field. [TEI: XXX]]	This message is displayed when no data is set in mandatory TEI. Please verify the data.
Invalid item data. [Details: Invalid character is used. [TEI: XXX]]	This message is displayed when an invalid character (e.g., comma, double quotation, or tilde) is included in the part data. Please verify the data.
Invalid item data. [Details: A number greater than the upper limit is specified. [TEI: XXX]]	This message is displayed when the TEI data is longer than the maximum length. Please verify the data.

Message	Cause and Corrective Action
Invalid item data. [Details: A number less than the lower limit is specified. [TEI: XXX]]	This message is displayed when the TEI data is shorter than the minimum length. Please verify the data.
Invalid item data. [Details: Character [XXX] is not permitted to use. [TEI: YYY]]	This message is displayed when an invalid character is included in the TEI data. Please verify the data.
Invalid item data. [Details: Data needs to be specified in the following format. [TEI: XXX] [Format: YYY]]	This message is displayed when a format error is detected for the TEI. Please verify the data.
Invalid item data. [Details: Specified value cannot be converted into date format. [TEI: XXX]]	This message is displayed when a date format error is detected for the TEI. Please verify the data.
Invalid item data. [Details: Invalid date. [TEI: XXX] [TEI range: YYY]]	This message is displayed when an invalid date is used. Please verify the TEI data.
Invalid country code. [TEI: XXX]	This message is displayed when an invalid Country Code is used. Please verify the TEI data.
Invalid item data. [Details: It is not permitted to use only one either [TEI: XXX] or [TEI YYY].]	This message is displayed when an invalid combination of TEIs is detected. Please verify the TEI data.
Invalid item data. [Details: When "TEI:XXX" is used, "TEI:YYY" needs to be set as the following value. [value:ZZZ]]	This message is displayed when an invalid data value is detected. Please verify the TEI data.
Invalid item data. [Details: It is not permitted to use [TEI: XXX] in the case that [TEI: YYY] is not used.]	This message is displayed when an invalid combination of TEIs is detected. Please verify the TEI data.
Invalid item data. [No data in mandatory EPC field. [EPC: XXX]]	This message is displayed when no data is set in mandatory EPC element. Please verify the data.
Invalid item data. [Details: Invalid character is used. [EPC: XXX]]	This message is displayed when an invalid character is included in the EPC data. Please verify the EPC data.
Invalid item data. [Details: A number greater than the upper limit is specified. [EPC: XXX]]	This message is displayed when the EPC data is longer than the maximum length. Please verify the EPC data.
Invalid item data. [Details: A number less than the lower limit is specified. [EPC: XXX]]	This message is displayed when the EPC data is shorter than the minimum length. Please verify the EPC data.
Invalid item data. [Details: Character [XXX] is not permitted to use. [EPC: YYY]]	This message is displayed when an invalid character is included in the PEC data. Please verify the EPC data.

Message	Cause and Corrective Action
Invalid item data. [Details: Invalid character is used. [Print Data (Header): XXX]]	This message is displayed when an invalid character is included in the header of print-only data. Please verify the header name.
Invalid item data. [Details: Invalid filter value.]	This message is displayed when an invalid Filter Value is used. Please verify the Filter Value data.
An error occurred while commissioning. [Details: Label format file does not exist. [File: XXX]]	This message is displayed when the amount of data specified for the Birth Record exceeds the allocated record length. Please revise the Birth Record data for the part.
An error occurred while commissioning. [Details: An error occurred while encoding tag data. [Data Record No.: XXX, Data size of Birth Record exceeds the upper limit.]]	This message is displayed when the amount of data specified for the Birth Record exceeds the allocated record length. Please revise the Birth Record data for the part.
An error occurred while commissioning. [Details: An error occurred while encoding tag data. [Data Record No.: XXX, Data size of Current Data Record exceeds the upper limit.]]	This message is displayed when the amount of data specified for the Current Data Record exceeds the allocated record length. Please revise the Current Data Record data for the part.
An error occurred while commissioning. [Details: An error occurred while encoding tag data. [Data Record No.: XXX, Data size of Lifecycle Record exceeds the upper limit.]]	This message is displayed when the amount of data specified for the Lifecycle Record exceeds the allocated record length. Please revise the Lifecycle Record data for the part.
An error occurred while commissioning. [Details: An error occurred while encoding tag data. [Data Record No.: XXX, Data size of Utility Record exceeds the upper limit.]]	This message is displayed when the amount of data specified for the Utility Record exceeds the allocated record length. Please revise the Utility Record data for the part.
An error occurred while commissioning. [Details: The header name for the Print Data is already used for another data column in the CommissionData. [Item:XXX]]	This message is displayed when invalid header name is used for print-only data. Please verify the print-only data settings.

4.2 Messages and Corrective Actions While Setting Configurations

Messages while setting configurations are displayed in dialog as below.

Message	Cause and Corrective Action
Failed to open database. [Details: XXX]	This message is displayed when database connection test fails. Please revise the ODBC connection strings.
Invalid value is specified for XXX or Invalid value is specified for XXX. [Line: YYY].	This message is displayed when an invalid value is specified for setting item. Please enter the correct value.
Please enter XXX. or Please enter XXX. [Line: YYY].	This message is displayed when a required item is not configured. Please enter the value for the setting item.
Please configure XXX. or Please configure XXX. [Line: YYY].	This message is displayed when a required item is not selected. Please select the setting item.
Specified XXX already exists. or Specified XXX already exists. [Line: YYY]	This message is displayed when the Format Specifier does not exist in the database table. Please change Format Specifier to an existing column.
[Tag Format: XXX] cannot be applied to [RFID Tag: YYY]. [Line: ZZZ]	This message is displayed an invalid combination of tag format and record type is detected. Please change RFID tag ("FJ Integrated 8K" is available for only Multi-Record and "FJ Integrated 1K" is available for only Dual-Record).
Up to 3 items can be specified as Disp Item.	This message is displayed when more than 3 TEIs are defined as Disp Item. Please select less than 4 TEIs for Disp Item.

Message	Cause and Corrective Action
TEI: XXX is mandatory.	This message is displayed when the Use check-box of mandatory TEI is not checked. Please check the check-boxes of all the mandatary TEIs.
[TEI: XXX] cannot be used with [TEI: YYY].	This message is displayed when an invalid combination of TEIs is detected. Please revise the combination.
It is not permitted to use only one either [TEI: XXX] or [TEI YYY].	This message is displayed when an invalid combination of TEIs is detected. Please check both of the TEIs or remove the checks on the check-boxes of both TEIs.
It is not permitted to use [TEI: XXX] in the case that [TEI: YYY] is not used.	This message is displayed when an invalid combination of TEIs is detected. Please check both of the TEIs or remove the checks on the check-boxes of both TEIs.