FUJITSU

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RFID Label Design and Encoding Management Pro

User's Guide

Commissioning from 2D

October 2016
Version 1.22

Preface

This document explains how to use the RFID Label Design and Encoding Management Pro for RFID Printer (hereafter referred to as "this tool"). Be sure to read this manual before using this tool.

➔ Please read the ***First Step Guide*** first.

■ Abbreviations and generic terms used

This document uses 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”
Terminals where Windows 7 or Windows 8.1 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
NXP's RFID tags with a 240-bit EPC area and a 512-bit user area, and Impinj's RFID tags with a 128-bit EPC area and a 512-bit user area	"Small-capacity RFID tags", "small-capacity tags", "low memory tags" or just "tags"

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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 manual 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 manual are from a Windows 7 environment.
- These screenshots and sample task files are from a version of the tool that was still in development, and so may differ slightly from the actual version.

■ How to obtain third-party software (such as Zebra products)

- For information about how to obtain third-party software, make inquiries with Fujitsu Customer Support.

■ Request

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- The content of this document may change without prior notice.

■ Revision history

Edition	Date issued	Changes
Version 1.20	September 2015	Initial version released. Add Commissioning from 2D and Batch Commissioning
Version 1.21	October 2015	Small changes.
Version 1.22	October 2016	For the first enhancement in 2016

Contents

1 Function Overview of Commissioning from 2D

1.1 Overview

This tool can extract a data record from a database using a reference specified in a 2D barcode, initialize a RFID tag with the data using a RFID printer in compliance with the ATA formats specified in ATA Spec2000 Chapter 9-5, and print the label on the RFID tag.

1.2 Function Configuration

This tool consists of following applications.

Name	Overview
Commissioning from 2D	This tool extracts a data record from a database using a reference specified in a 2D barcode from database, initializes a RFID tag with the data using a RFID printer in compliance with the ATA formats specified in ATA Spec2000 Chapter 9-5, and prints the label on the RFID tag.
Configurations	This application is used for setting the configurations parameters for this tool.

1.3 Suite of User Manuals

The user manuals for this product 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” for RFID printer.
RFID Label Design and Encoding Management Pro User's Guide (Commissioning from 2D)	• This is the present document • Explains how to use the Commissioning from 2D application of “RFID Label Design and Encoding Management Pro” for RFID printer.
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” for RFID printer.
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 Message Display

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.

Refer to section 5 “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 support service.

2 Operating Environment

2.1 PC

2.1.1 Hardware Requirements

The following hardware and settings are required to install this tool.

2.1.1.1 PC

Hardware	Description
CPU	A CPU with a 1.0 GHz processor or higher (manufactured by Intel or AMD)
Memory	1 GB or more
Hard disk capacity	400 MB or more
Text resolution	96 DPI
Display size	XGA (1024 x 768) or higher

Reference:
- There may be display problems if a text resolution other than the one above is used.
- The text resolution can be set using the Control Panel.
  Select **Control Panel** > **Adjust screen resolution** > **Make text or other items larger or smaller** > **Smaller - 100% (default)**.

2.1.1.2 RFID Printer

This product is only guaranteed to work with the following RFID printer.

Manufacturer	Type	Driver, SDK, etc.	Model
Zebra Technologies	Card Printers (UHF)	Firmware Ver. FZ7ME.02.04.00	ZXP Series 7 Card Printers (UHF)

2.1.2 Software Requirements

The following software is required to install this tool.

- Windows 7 Professional Service Pack 1 (64bit edition) or Windows 8.1 Professional (64bit edition)
- Internet Explorer 8 or higher
- .NET Framework 4.5.1 (Note: .NET Framework 4.5.1 is preinstalled on Windows 8.1)
- BarTender (SeaGull Co.)
- Microsoft Office 2010 or later (32-bit edition) Access and Excel

Reference: ・Microsoft Office Access and Excel is necessary to use the data files as the data source.

2.2 RFID Tags

This tool supports the following RFID tags.

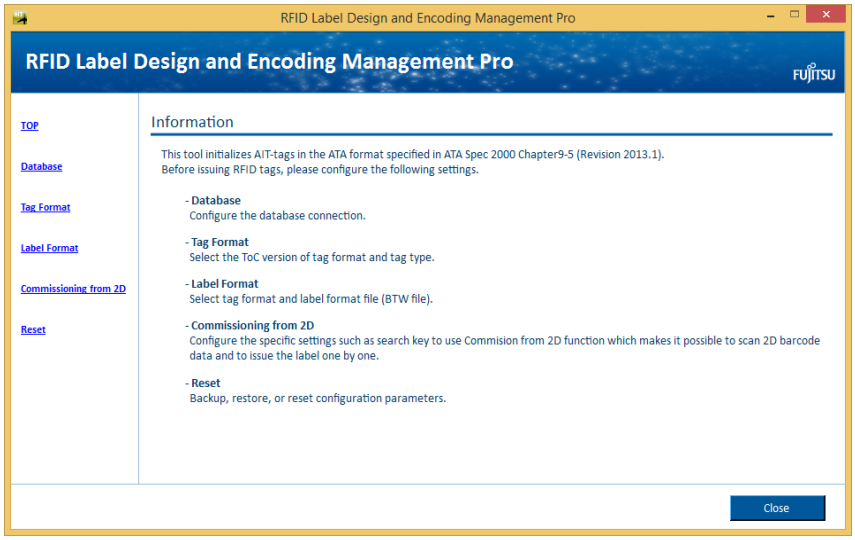
- Fujitsu's RFID Integrated Label – 1Kbyte (Large/Medium/Small)
- Fujitsu's RFID Integrated Label – 8Kbyte (Large/Medium/Small)

3 Configurations

3.1 Overview

This section explains how to set configurations parameters for this tool.

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.

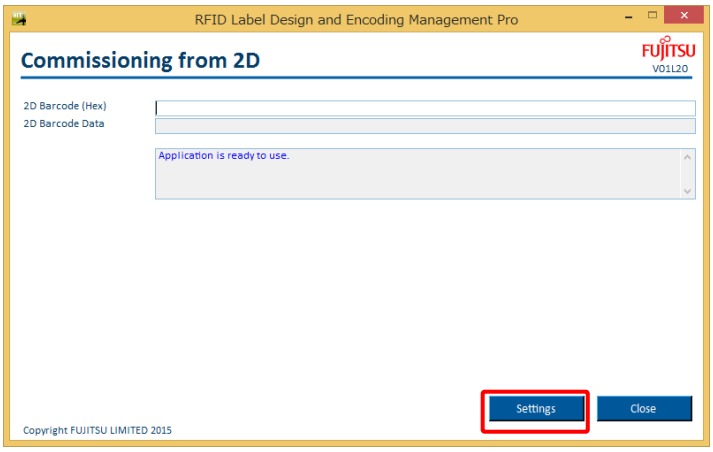


Menu Option	Description
Database	This option is used to configure the database connection to the database that stores parts information for the tag commissioning. This tool uses an ODBC driver for the database connection.
Tag Format	This option is used to define tag formats by adding TEIs to the ATA formats specified in ATA Spec2000 Chapter 9-5.
Label Format	This option is used to specify encoding and printing data configuration by part type for RFID tag types.
Commissioning from 2D	This option is used to set application parameters specific to the Commissioning from 2D application.
Reset	This option is used to reset all configuration parameters to their default at installation time, or backup and restore the current configurations.

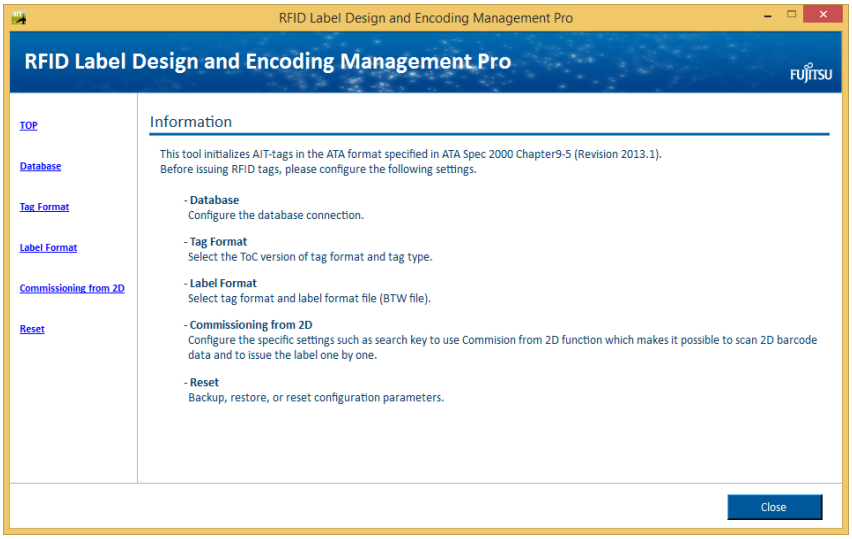
3.2 Operating Procedure for Settings

3.2.1 Starting Settings

1) Click the **Settings** button on the Commissioning from 2D screen (see below) to move to the configurations menu. Please refer to section 4 “Commissioning from 2D” for the operating procedure to start Commissioning from 2D application.

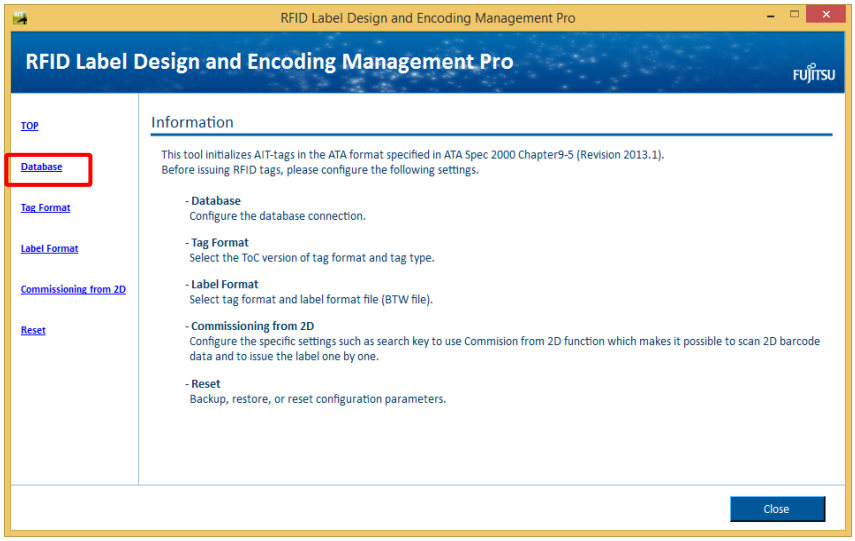


2) The following configurations menu is displayed.



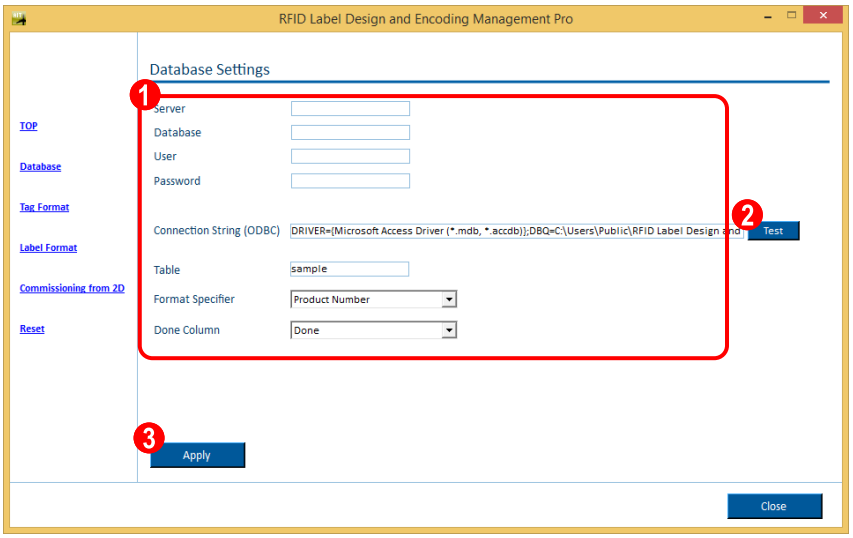
3.2.2 Database Connection Settings

1) Click **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)

Item	Description
Connection String (ODBC)	ODBC connection string for the database connection (required). See Caution note below.
Table	Database table where the parts information for tag commissioning is stored (required)
Format Specifier	Column in the database table used for specifying the label format in “3.2.4 Label Format Settings” (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 **Format Specifier** and **Done Column** items by clicking the **Test** button.

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$

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]

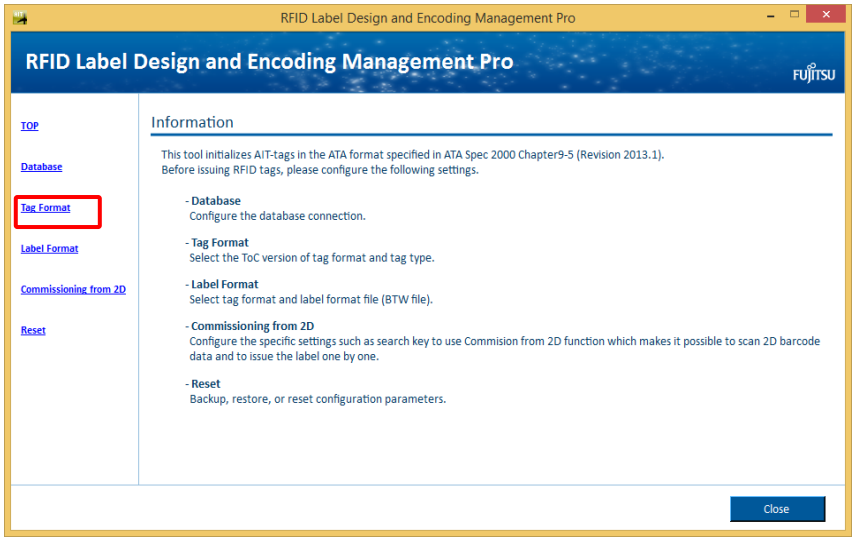
Reference: The database table used for this tool needs to meet the following requirements.

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 “3.2.4 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 values for TEI: SER/SEQ/UCN are unique in the database table.	
The database table needs to have a specific column to identify a record from a 2D barcode reading (the column is defined as Search Key in “3.2.5 Settings Specified to Commissioning from 2D”).	

3.2.3 Tag Format Settings

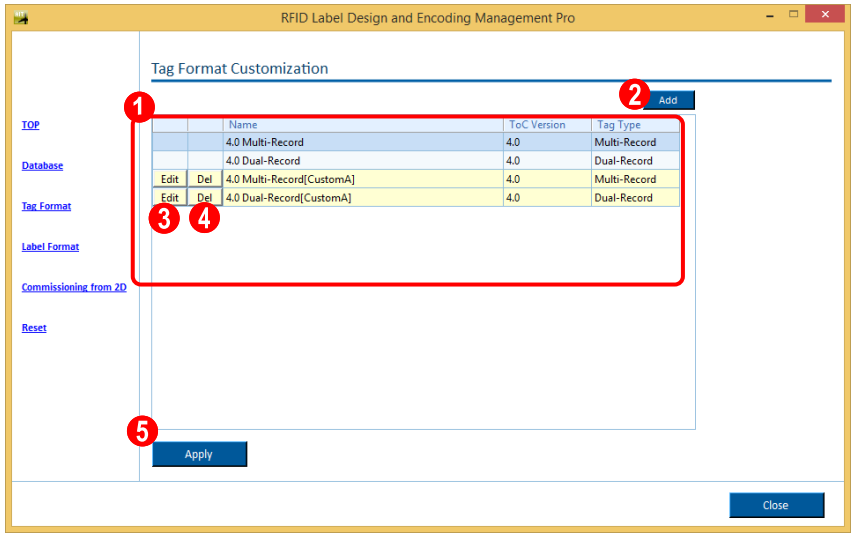
3.2.3.1 Tag Format List Screen

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 3.2.3.2 “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 3.2.3.3 “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

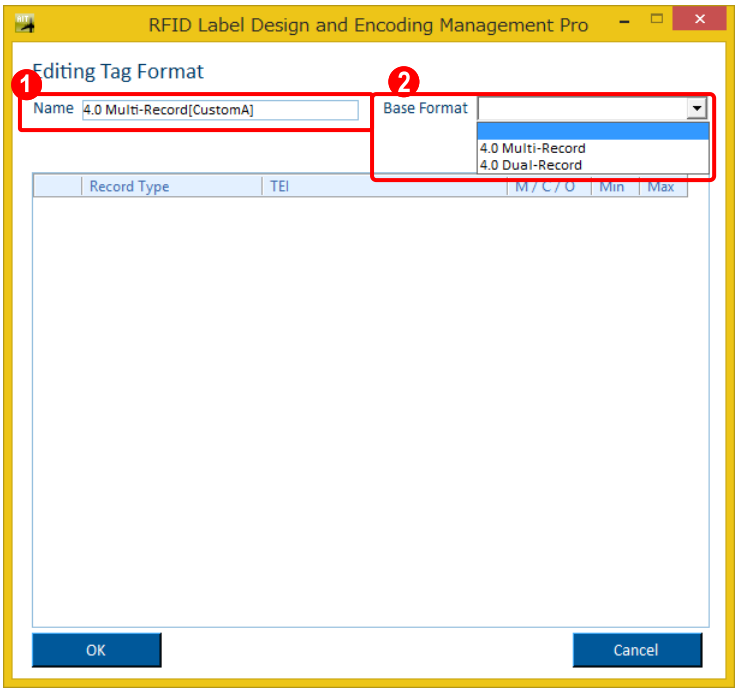
This button is used to save the changes on tag formats.

! 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 3.2.4 “Label Format Settings” for the label format and TEI source settings).

3.2.3.2 Tag Format Details Screen (Adding)

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



❶ **Name**

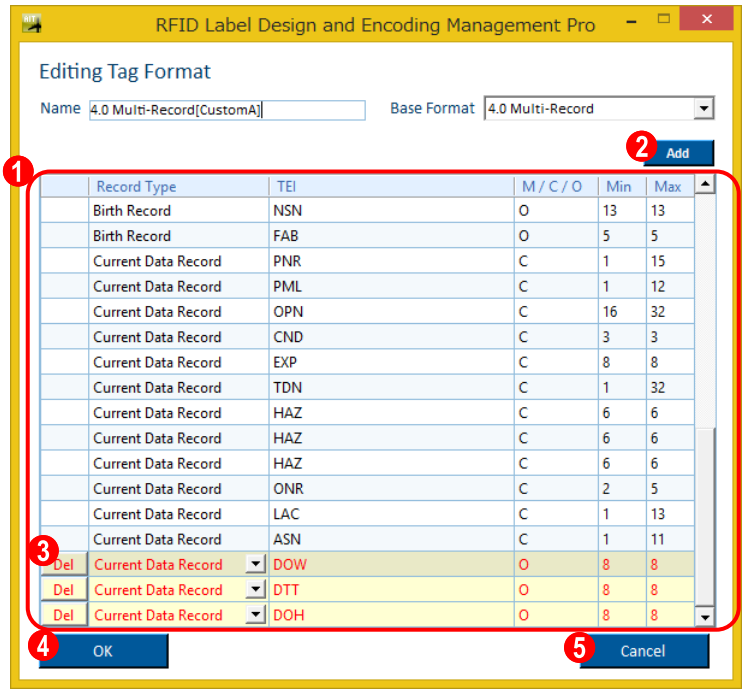
This field is used to enter the customized tag format name.

❷ **Base Format**

This dropdown list is used to select the base tag format from **4.0 Multi-Record** and **4.0 Dual-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. 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.

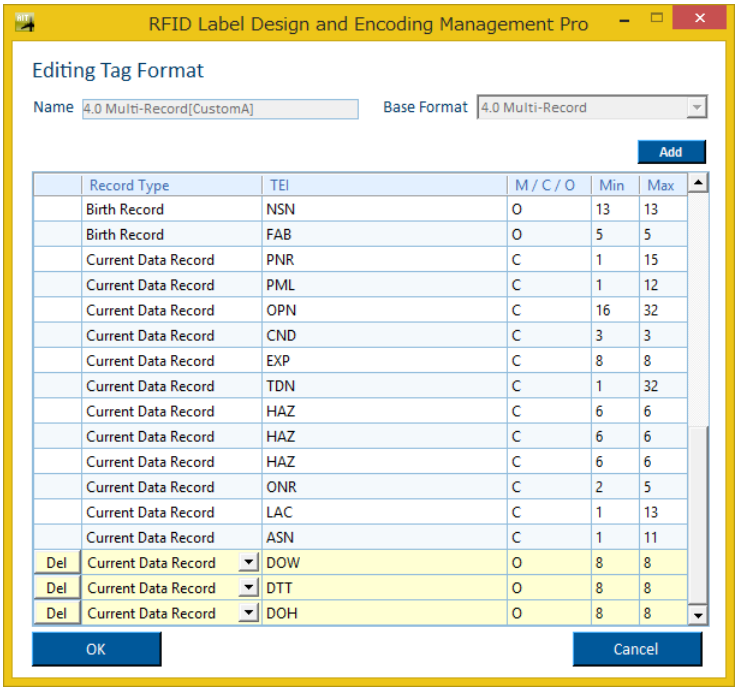
! Caution	It is necessary to click the **Apply** button on the tag format list screen to save the added tag format(s).

❺ **Cancel** button

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

3.2.3.3 Tag Format Details Screen (Modifying)

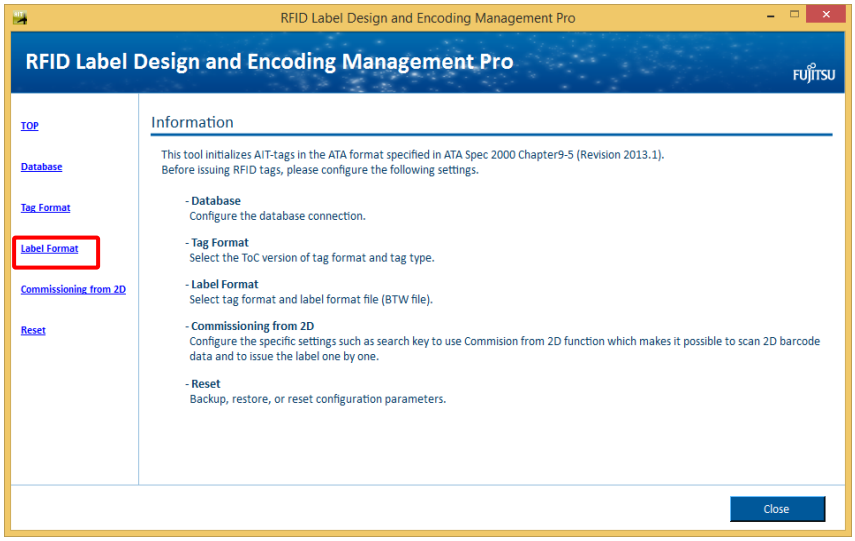
1) TEIs of customized tag format can be modified on this screen same as the adding.
Edit and save the TEI definitions same as for addition to a customized tag format.



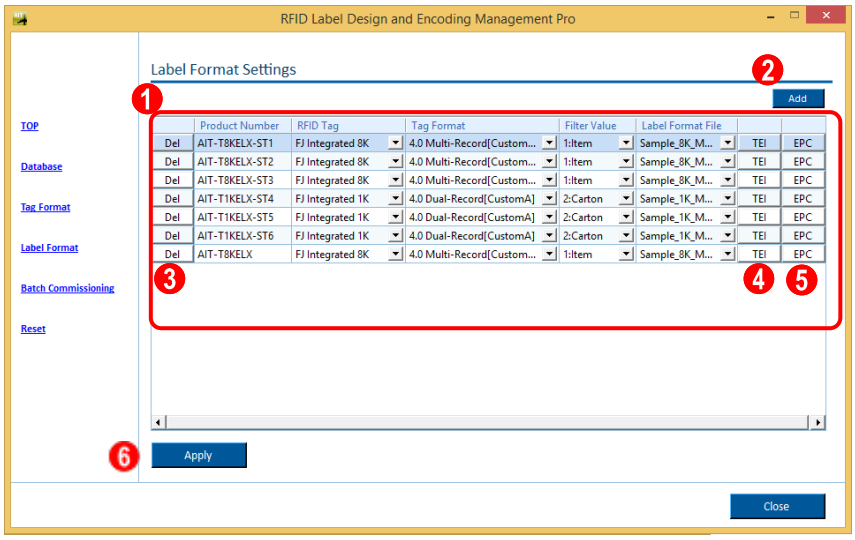
3.2.4 Label Format Settings

3.2.4.1 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
Product Number	Product number to specify label format (This field refers to the column set as **Format Specifier** in section 3.2.2 “Database Connection Settings” and Product Number is set as default. (Only the values existing in the

	column can be set in this field)
RFID Tag	RFID tag selected from “FJ Integrated 8K” and “FJ Integrated 1K”.
Tag Format	Tag format (please refer to section 3.2.3 ”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 **Add** button

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

❸ **Del** button

This button is used to delete the corresponding label format.

❹ **TEI** button

This button is used to set TEIs data source. Please refer to section 3.2.4.2 “TEIs Data Source Settings” for the details.

❺ **EPC** button

This button is used to set EPC data source. Please refer to section 3.2.4.3 ”EPC setting” for the details.

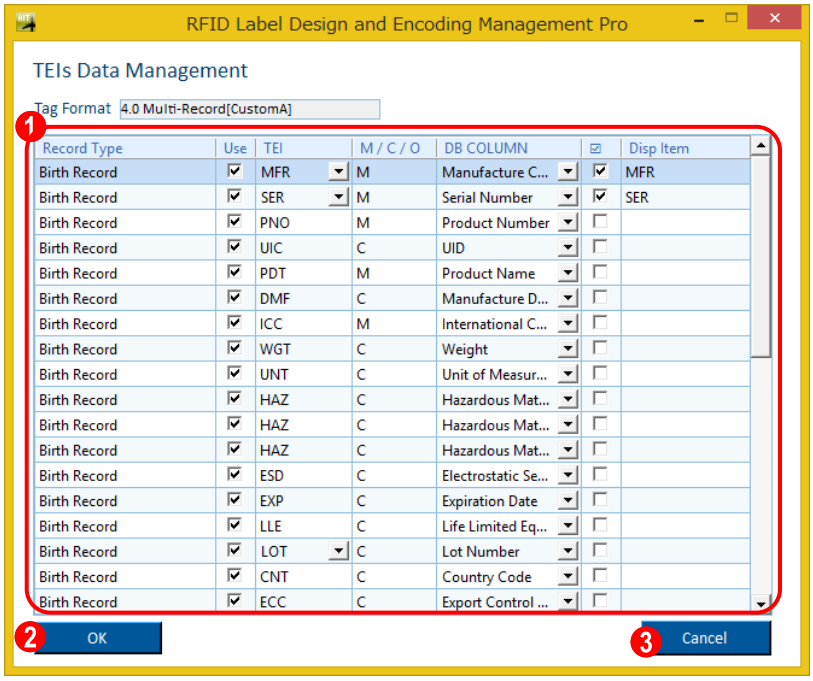
❻ **Apply** button

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

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

3.2.4.2 TEIs Data Source Settings Screen

1) Columns of database table are mapped as the data source of TEIs on the following screen.
Select a column for each TEI and click the **OK** button.



1 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.
DB Column	Column of the database table which is used as the data source for the TEI.
☑ Disp Item	TEIs to be displayed with the defined strings on the main screen of Commissioning from 2D. 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.

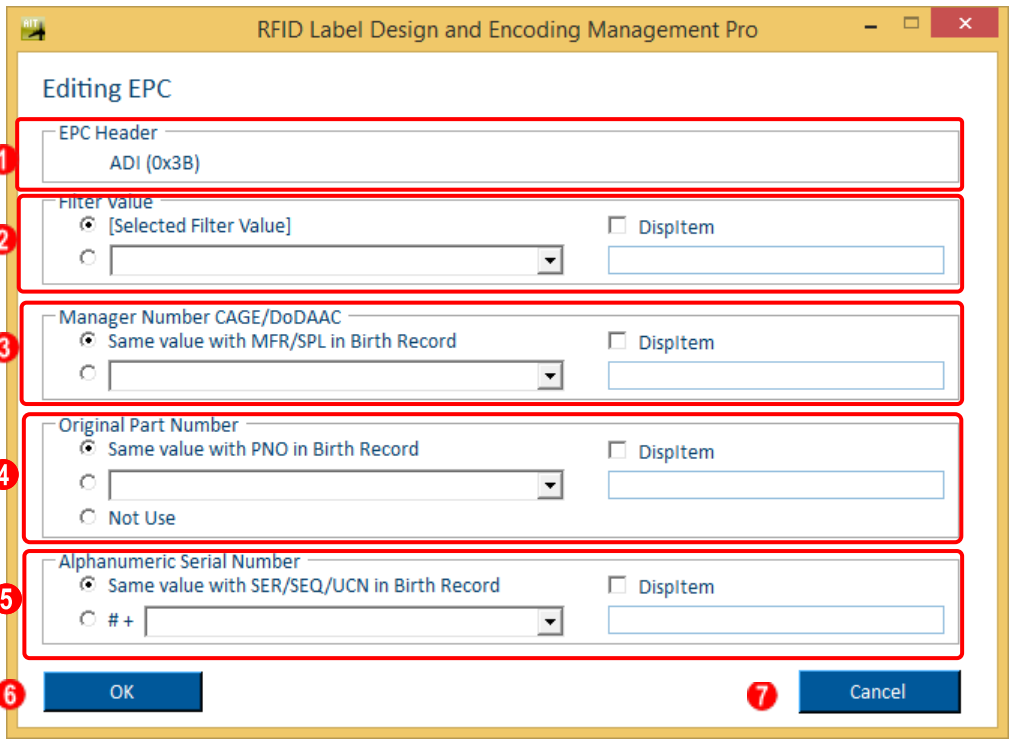
! Caution	It is necessary to click the **Apply** button on tag format list screen to save the added tag format.

❸ **Cancel** button

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

3.2.4.3 EPC setting

1) Set EPC information on the following screen. If "SEQ" is selected on the TEIs data source settings screen, the EPC setting is required.



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 from either extracting from database or using the defined value on the label format list screen. In case of getting the value from database, the column of the database table needs to be specified.

When the **DispItem** checkbox is checked, the value is displayed together with the text entered in the textbox in the main screen in Commissioning from 2D as well as the procedure of the TEIs source setting screen.

❸ **Manager Number CAGE/DoAAC**

This area is used to choose the way to get "Manager Number CAGE/DoAAC" from either using same value with MFR/SPL in Birth Record or another value in database. In case of getting the value from database, the column of the database table needs to be specified.

When the **DispItem** checkbox is checked, the value is displayed together with the text entered in the textbox in the main screen in Commissioning from 2D as well as the procedure of the TEIs source setting screen.

❹ **Original Part Number**

This area is used to choose the way to get "Original Part Number" from either using same value with PNO in Birth Record or another value in database. In case of getting the value from database, the column of the database table needs to be specified.

When the **DispItem** checkbox is checked, the value is displayed together with the text entered in the textbox in the main screen in Commissioning from 2D as well as the procedure of the TEIs source setting screen.

❺ **Alphanumeric Serial Number**

This area is used to choose the way to get "Alphanumeric Serial Number" from either using same value with SER/SEQ/UCN in Birth Record or another value in database. In case of getting the value from database, the column of the database table needs to be specified (in this case, "#" is added to the begging of the value).

When the **DispItem** checkbox is checked, the value is displayed together with the text entered in the textbox in the main screen in Commissioning from 2D as well as the procedure of the TEIs source setting screen.

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.

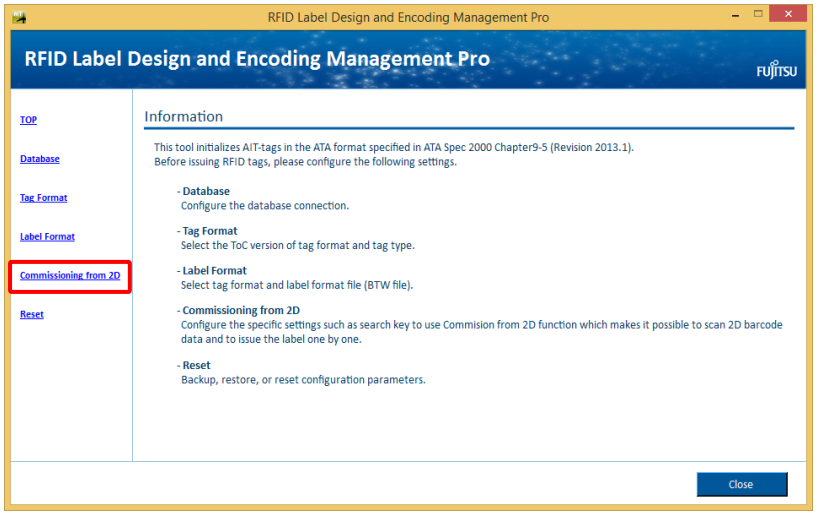
❼ **Cancel** button

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)

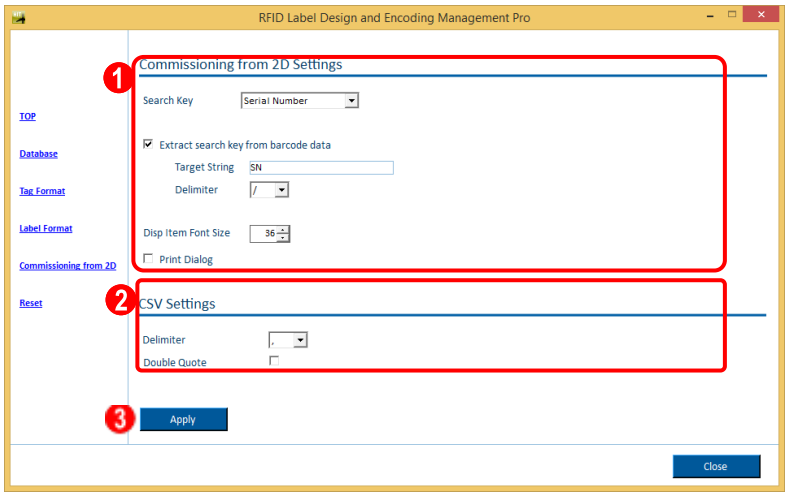
3.2.5 Settings Specified to Commissioning from 2D

1) Click **Commissioning from 2D** 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 Setting Items

Item	Description
Search Key	Column of the database table to be used to locate a part record for Commissioning from 2D
Extract search key from barcode data	Check box to enable to extract search key from string such as 2D barcode information. The search key will be between the specified Target String and Delimiter: **Target String**: Sequence of characters immediately preceding the search key value; **Delimiter**: Character placed immediately after the search

	key value.
Disp Item Font Size	Font size of the parts information displayed on Commissioning from 2D main screen (10 to 36)
Print Dialog	If checked, the Print dialog appears before the tag commissioning starts.

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 from 2D.

! 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: ***/***

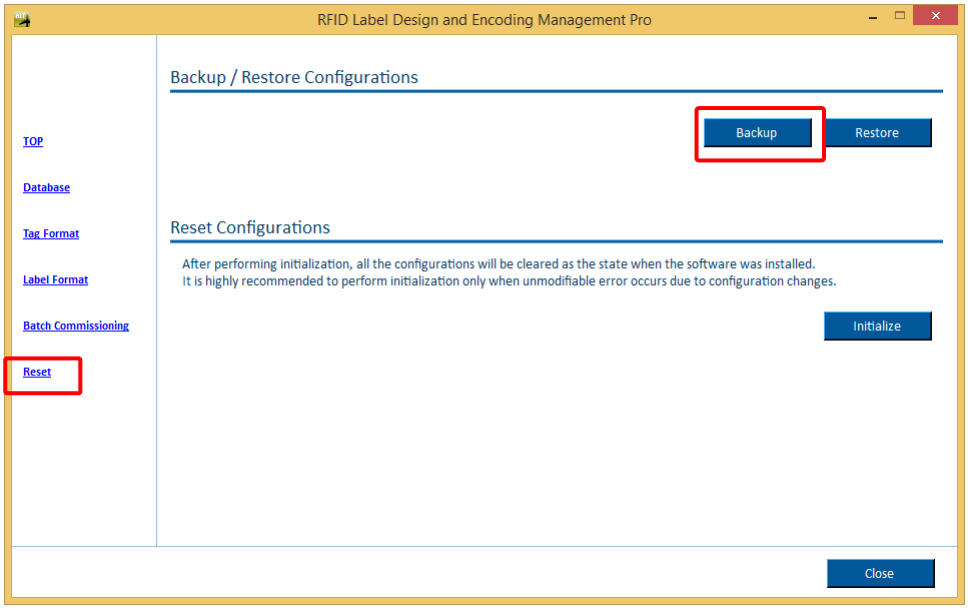
When the following string is read from the 2D barcode,

SN FJAIT1001-8KL-E/PN AIT-T8KELX0000E

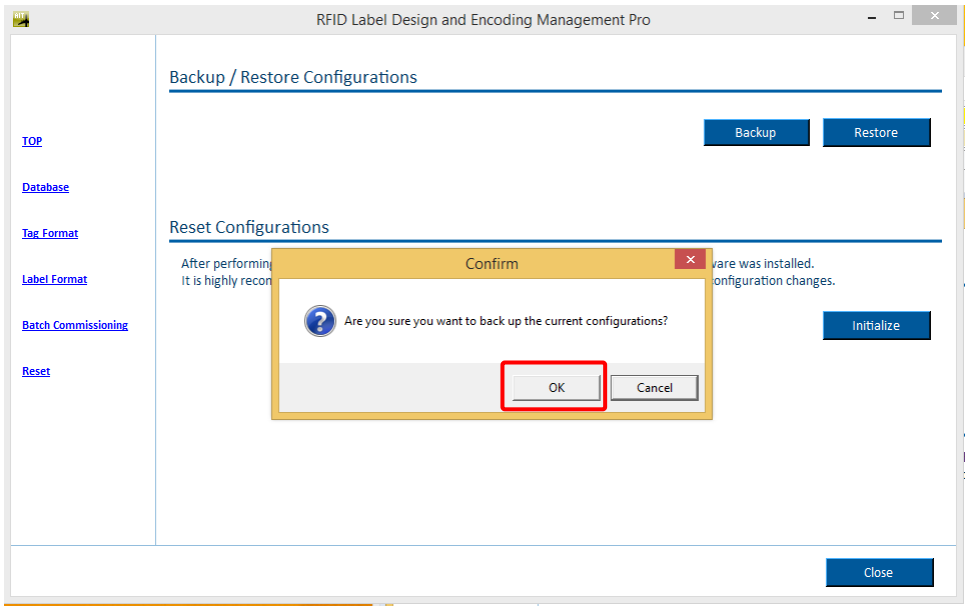
the string “FJAIT1001-8KL-E” is set as the search key. (Start point of extraction is defined as the text starting after “SN” and ending at the delimiter “/”.)

3.2.6 Backup of Configurations

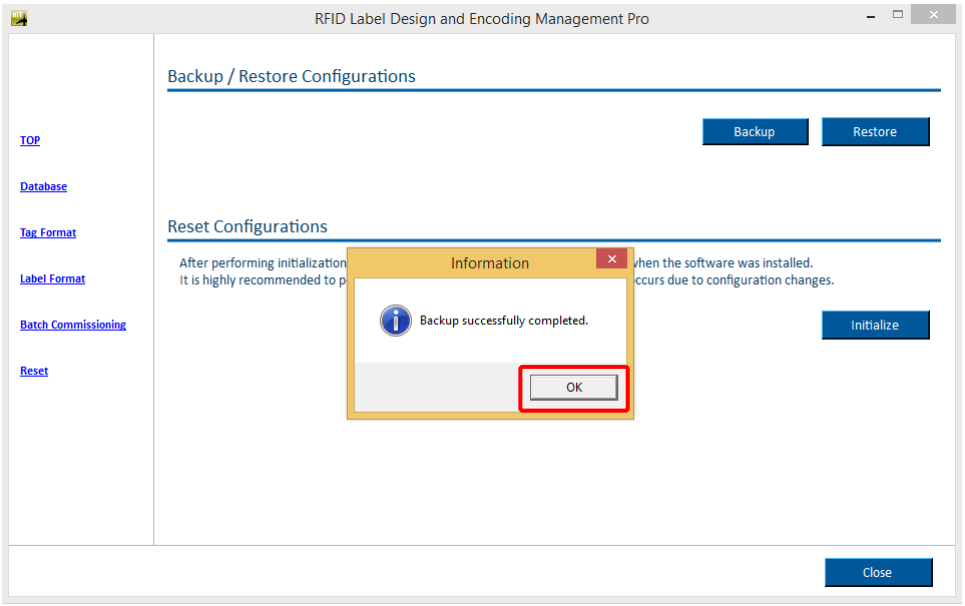
(1) Select **Reset** from a category on the left side and then click the **Backup** button.



(2) The confirmation message is displayed. Click the **OK** button.

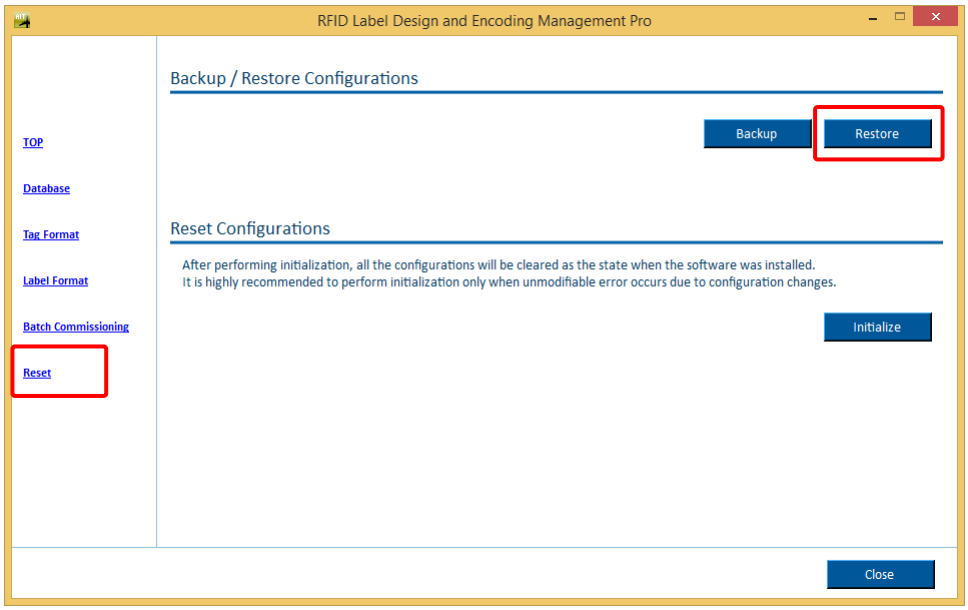


(3) After specifying the destination folder, backup is automatically performed and "Backup.zip" is created in the file you specified. After the backup is completed, an information dialog is displayed and then click the **OK** button.

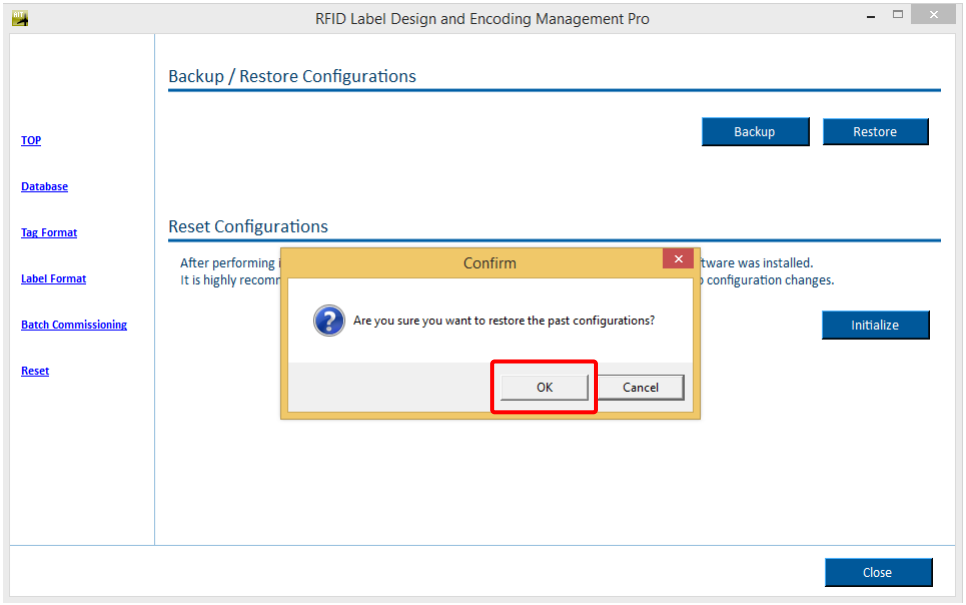


3.2.7 Restoration of Backup Configurations

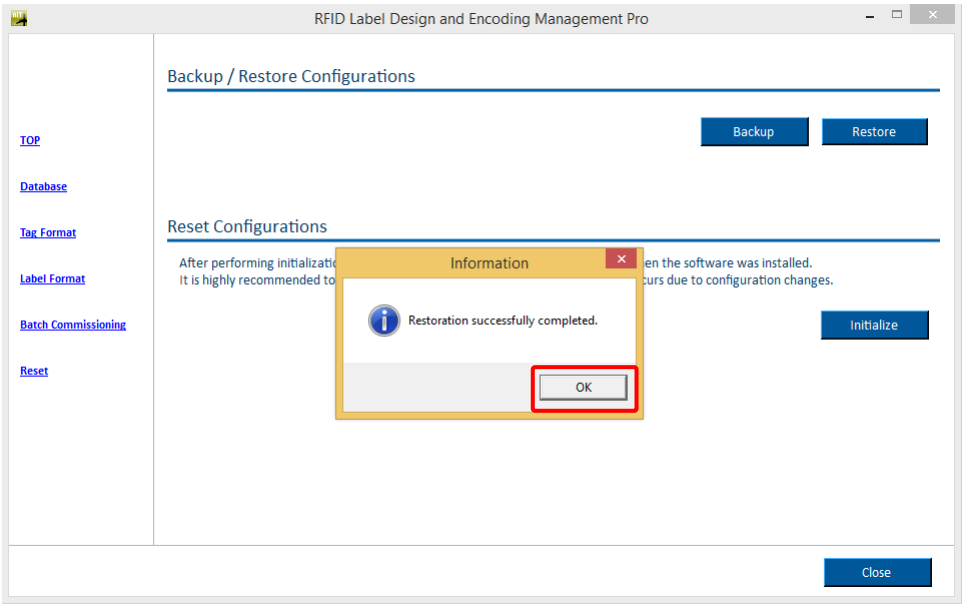
(1) Select **Reset** from a category on the left side and then click the **Restore** button.



(2) The confirmation message is displayed and then click the **OK** button.

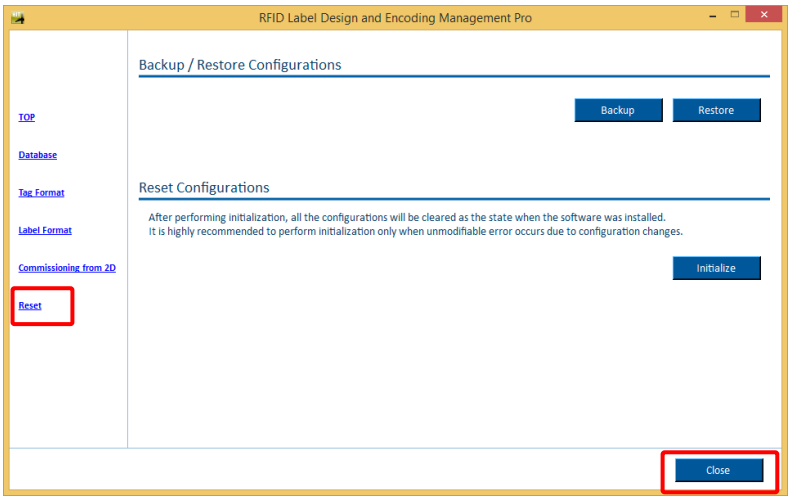


(3) Select the "Backup.zip" file that you made in "3.2.6 Backup of environment setting data" from file selection dialogue. After the restoration is completed, an information dialog is displayed and then click the **OK** button.



3.2.8 Initializing Configurations

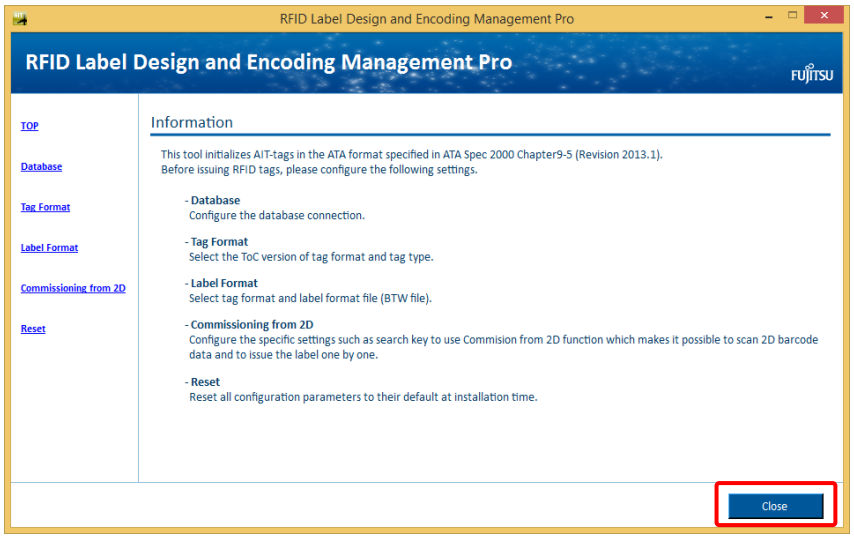
1) Select **Reset** on the left-side menu and click the **Initialize** button.



! 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.

3.2.9 Closing Settings Menu

1) Click the **Close** button.



4 Commissioning from 2D

4.1 Starting and Stopping the Tool

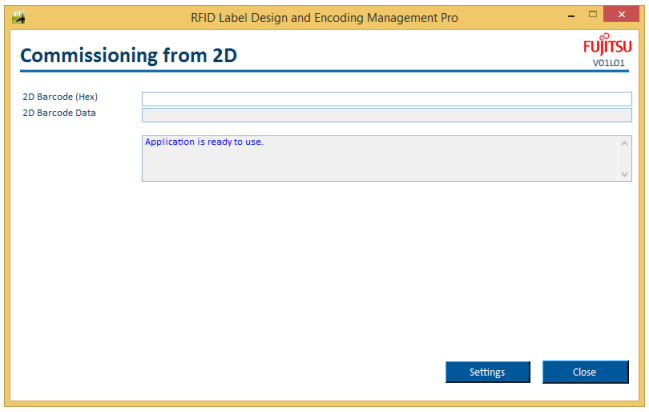
4.1.1 Starting the Tool

1) To start this tool, click the icon of **RFID Label Design And Encoding Management Pro** that has been placed on the computer desktop.

2) Click the **Label Commissioning from 2D**

3) The main screen of Commissioning from 2D is displayed.

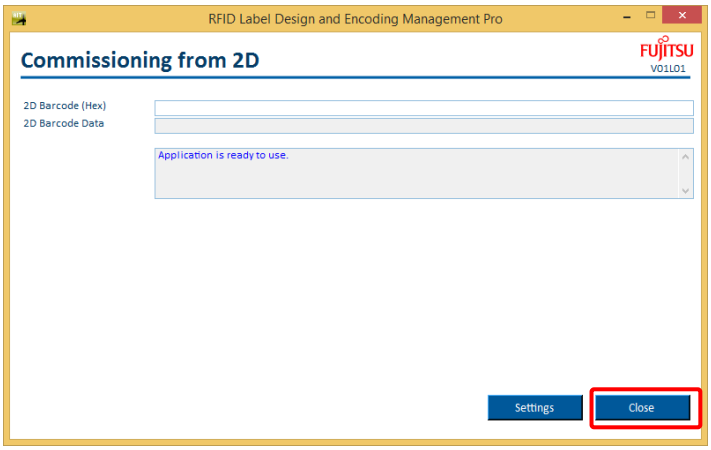
The message “Application is ready to use.” displayed in the text box means the tool is properly running.



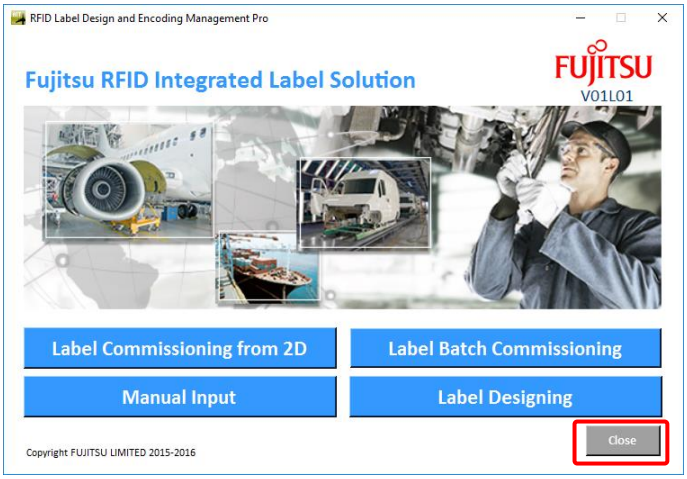
! Caution ・Even if one attempts to start the tool multiple times, only one screen for Commissioning from 2D will be opened.

4.1.2 Stopping the Tool

1) To stop this tool, click the **Close** button.



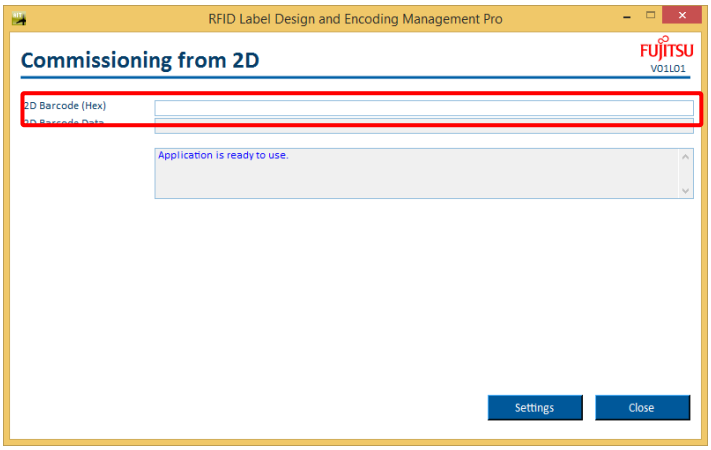
2) Then click the **Close** button on the menu screen.



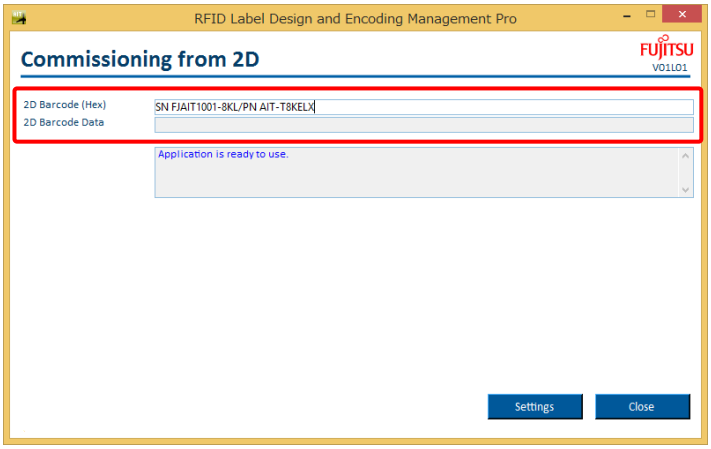
4.2 Using Commissioning from 2D

4.2.1 Commissioning Tag

1) Put the focus in the **2D Barcode (Hex)** field and read 2D barcode using a 2D barcode reader.



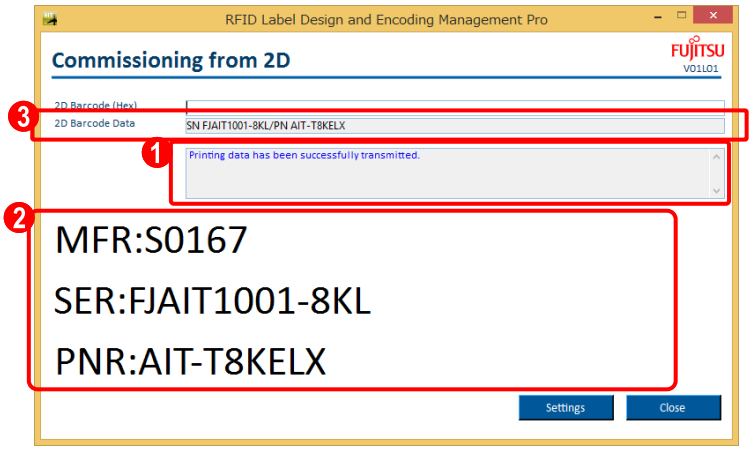
2) The read barcode information is displayed in **2D Barcode (Hex)** field.



Reference: Sample 2D barcodes for using sample database are stored in the following folder:

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

3) 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 5 “Troubleshooting” for the details of error messages.

❷ **Part Information** area

This area displays the part information extracted from database.

❸ **2D Barcode Data** area

This area displays the read 2D barcode data.

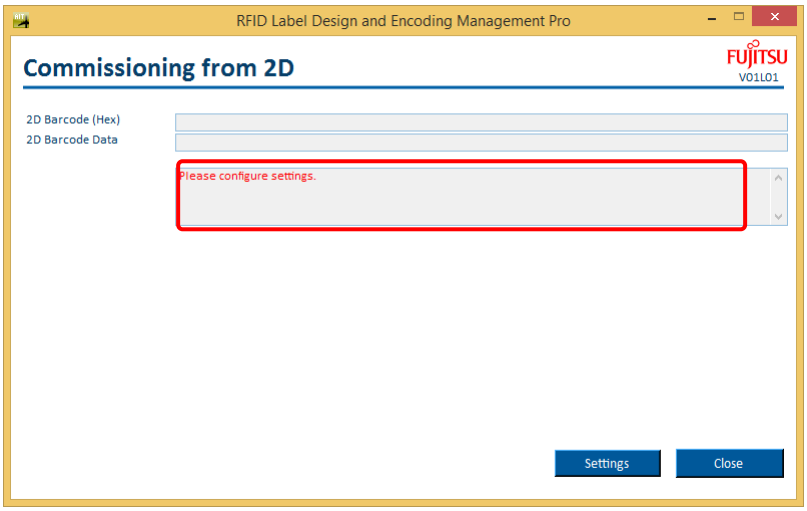
2D Barcode (Hex) area is cleared.

! Caution	・Please issue the label tag by the printer within three minutes after scanning 2D 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 2D barcode.

5 Troubleshooting

5.1 Error Messages and Corrective Actions While using Commissioning from 2D

Error 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 tool (example: no parameter for required setting item field)

Red: The error probably occurred by another cause (example: an invalid data record in the database)

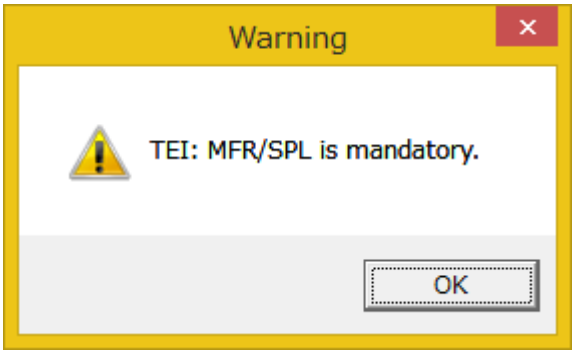
Message	Cause and Corrective Action
Please configure settings.	This message is displayed if settings are not configured correctly. Please verify the database connection settings and the settings specific to Commissioning from 2D.
The specified item [Search Key] not found.	This message is displayed when the part information is not found on the database. Please verify that the 2D barcode data is correct.
Multiple items are found by the search key [Search Key].	This message is displayed when multiple parts records are found in the database (the Search Key needs to be unique). Please verify that the database data is correct.
Please enter search key [Search Key].	This message is displayed when 2D barcode is not correctly read and Enter key is input. Please verify that the 2D barcode is normal.

Message	Cause and Corrective Action
Search key could not be extracted from barcode data properly.	This message is displayed when search key is not extracted properly. Please confirm the **Target String** in settings specific to Commissioning from 2D is correctly configured.
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 set label format for the part.
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 database record.
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 record in the database.
Invalid item data. [Details: A number greater than the upper limit is specified. [TEI: XXX]]	This message is displayed when the data is longer than the maximum length. Please verify the data record in the database.
Invalid item data. [Details: A number less than the lower limit is specified. [TEI: XXX]]	This message is displayed when the data is shorter than the minimum length. Please verify the data record in the database.
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 part data. Please verify the data record in the database.
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 record in the database.
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 record in the database.
Invalid item data. [Details: Invalid date. [TEI: XXX] [TEI range: YYY]]	This message is displayed when an invalid date is used. Please verify the data record in the database.
Invalid country code. [TEI: XXX]	This message is displayed when an invalid Country Code is used. Please verify the data record in the database.
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 data record in the database.
Invalid item data. [Details: When "TEI:XXX" is used, "TEI:YYY" needs to be set as the	This message is displayed when an invalid data value is detected. Please verify the data record in

Message	Cause and Corrective Action
following value. [value:ZZZ]]	the database.
An error occurred while commissioning. [Details: Label format file does not exist. [File: XXX]]	This message is displayed when the specified BTW file is not found. Please verify that the BTW file is located in the correct folder.
An error occurred while commissioning. [Details: An error occurred while encoding tag data. [Data Record No.: 1, 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.: 1, 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.: 1, 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: BarTender is not installed.] or An error occurred while commissioning. [Details: BarTender program file is not found.]	This message is displayed when the BarTender software is not installed. Please install BarTender and/or confirm proper installation.

5.2 Error Messages and Corrective Actions While Setting Configurations

Error 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 specified value is already used. Please change the value.
Specified [Format Specifier] does not exist.	This message is displayed when the Format Specifier does not exist in the database table. Please change Format Specifier to an existing column.
Please enter a greater number than Min in Max field. [Line: XXX]	This message is displayed when the Min is set as greater number than Max. Please enter greater value than Min into the Max field.
Please specify TEI in uppercase	This message is displayed when an invalid

Message	Cause and Corrective Action
characters.	character is used for TEI. Please enter only upper case letters for TEI.
[Tag Format: XXX] can not 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.
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] can not 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.