



# RFID Data Management Pro For Mobile Computers

## User's Guide

October 2016  
Version 2.33



# Preface

This document explains how to use the handheld device version of the RFID Data Management Pro for Mobile Computers (hereafter referred to as "this tool"). Be sure to read this manual when using this tool.

## ■ 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® Mobile	Windows Mobile
Terminals where Windows 7 has been installed Personal computer	PC
Reader/writer devices	"handheld device " or "HHT" (handheld terminal)
RFID tags	Tag
2D barcode (Data Matrix)	Barcode
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
RFID tags manufactured by NXP with a 240-bit EPC area and a 512-bit user area, and RFID tags manufactured by Impinji 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 that are compliant 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 Mobile 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 Motorola 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 1.00	March 2013	Newly prepared
Version 1.10	July 2013	Support for ATA Spec2000 Rev.2013.1 and other changes
Version 1.11	September 2013	Support for Fujitsu's 2-kilobit tags and other changes
Version 2.00	March 2014	<ul style="list-style-type: none"> <li>• Support for MAINtag's 8 kilobyte large-capacity RFID tags.</li> <li>• Improvements of screen navigation and design.</li> <li>• Support for data Input from 2D Barcode.</li> <li>• CSV logging for multiple record commissioning.</li> </ul>
Version 2.10	June 2014	<ul style="list-style-type: none"> <li>• Changed Product Name</li> <li>• Added Data Validation function</li> <li>• Support for Fujitsu's RFID Integrated Label</li> </ul>
Version 2.20	October 2014	Commercialization Version
Version 2.30	March 2015	Added TID field in CSV file of commission data
Version 2.31	October 2015	For FX7500
Version 2.32	July 2016	Updated Data Validation function
Version 2.33	October 2016	Function Enhancement 1) Support for the EPC format for non-serialized parts 2) Function addition of logging the written data on tag in XML

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# 1 Function Overview of RFID Data Management Pro for Mobile Computers

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## 1.1 Overview

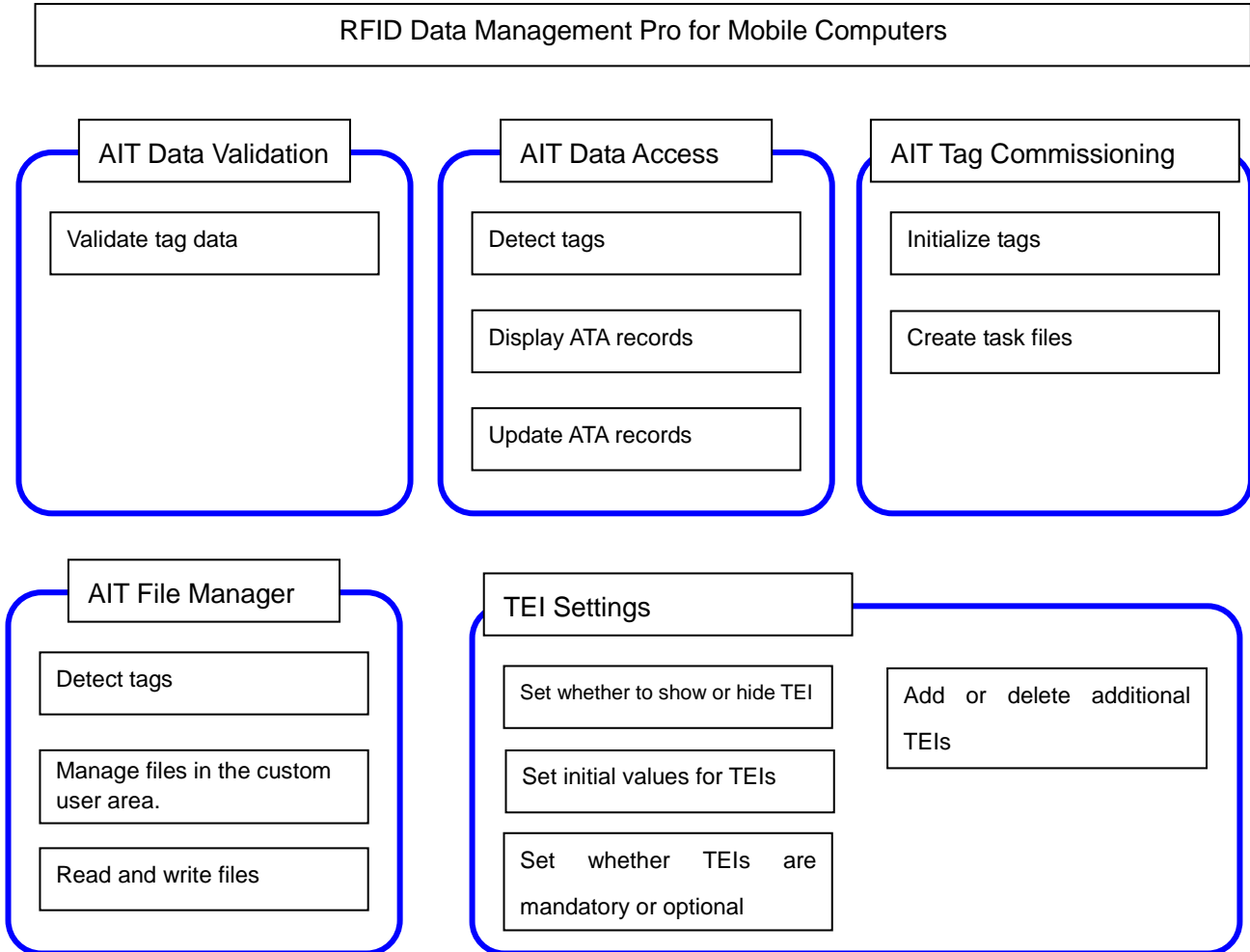
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This tool can initialize RFID tags in the ATA format based on ATA Spec2000 Chapter 9-5, and read and write ATA records from and to RFID tags that have been initialized in the ATA format based on ATA Spec2000 Chapter 9-5, validate data on RFID tags. Files can also be read from and written to the tag using the custom user area.

## 1.2 Function Configuration

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The function configuration for this tool is as follows:



## 1.3 Function Overview

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This section provides an overview of the functions of this tool.

- AIT Data Validation

This function compares the Birth Record data in RFID tag and 2D barcode data printed on the surface of RFID tag. If the data are the same, comparison is passed. If the data are different, detailed information is displayed.

- AIT Data Access

This function makes it possible to read ATA records based on ATA Spec2000 Chapter 9-5, as well as to write Part History Record, Current Data Record, Lifecycle Record and User Scratchpad Record data.

- AIT Tag Commissioning

This function initializes tags.

This function can also be used to edit and save task files.

- TEI Settings

This function specifies whether TEIs are shown or hidden in the display screen, update screen, update confirmation screen and update result screen for each ATA record. This function also sets the initial values for each TEI, and whether TEI input is mandatory or optional for each TEI. It is also possible to add and remove additional TEIs.

- AIT File Manager

This function can read and write files from and to the custom user area.

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**! Caution**

- When reading from or writing to a tag, ensure that the tag is always in a detectable state.
  - 2D barcode that can be used with this tool is "Data Matrix".
  - The AIT File Manager function supports only 8Kbyte tag. Please make an inquiry to Fujitsu support service if using it.
-

### 1.3.1 Function List

The following table lists the functions of this tool.

Tool	Function		
RFID Data Management	AIT Data Validation	Validate tag data	✓
	Pro for Mobile Computers	AIT Data Access	Display Birth Record
Update Birth Record			-
Display Current Data Record			✓
Update Current Data Record			✓
Display User Scratchpad Record			✓
Update User Scratchpad Record			✓
Display Part History Record			✓
Add Part History Record			✓
Display Lifecycle Record			✓
Update Lifecycle Record			✓
AIT Tag Commissioning			Initialize tags
TEI Settings	Set whether to show or hide TEIs	✓	
	Set whether TEIs are mandatory or optional	✓	
	Add or delete additional TEIs (CSDD)	✓	
	Add or delete additional TEIs (custom information)	✓	
AIT File Manager	Save, read or delete files in the custom user area	✓	
	User management	-	

✓: Supported

-: Not supported

### 1.3.2 Suite of User Manuals

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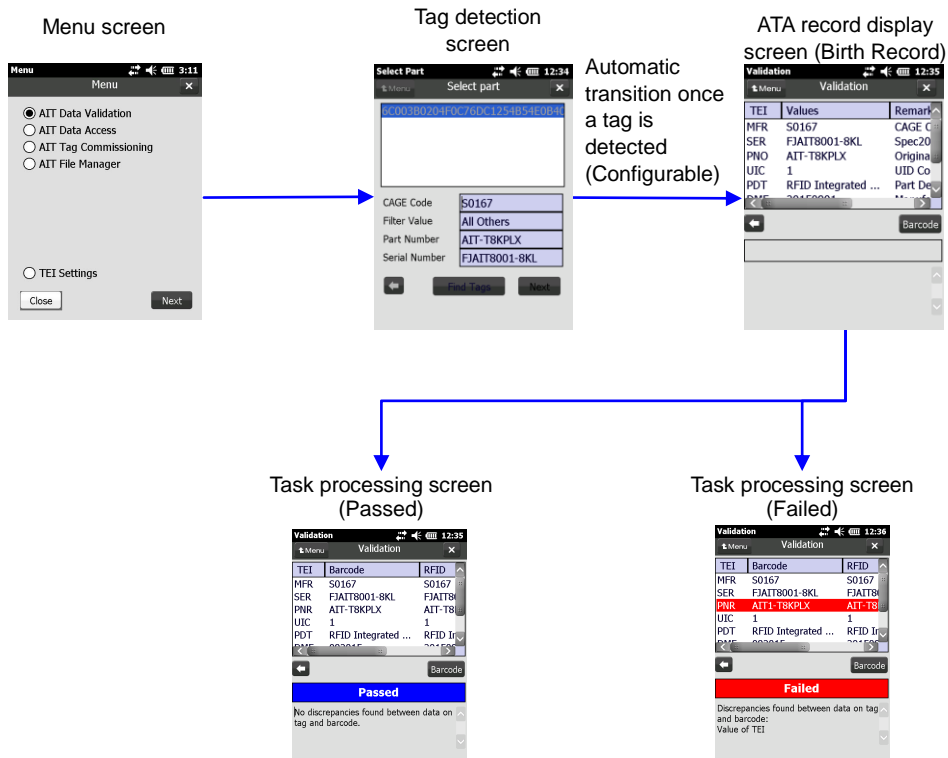
The user manuals for this product are organized as below.

<b>Manual title</b>	<b>Description</b>
RFID Data Management Pro for Mobile Computers User's Guide	• Explains how to use the handheld device version of the RFID Data Management Pro
RFID Data Management Pro & RFID Label Design and Encoding Management Pro User's Guide (Appendixes)	• Explains the transaction details and provides other information about the RFID Data Management Pro and RFID Label Design and Encoding Management Pro

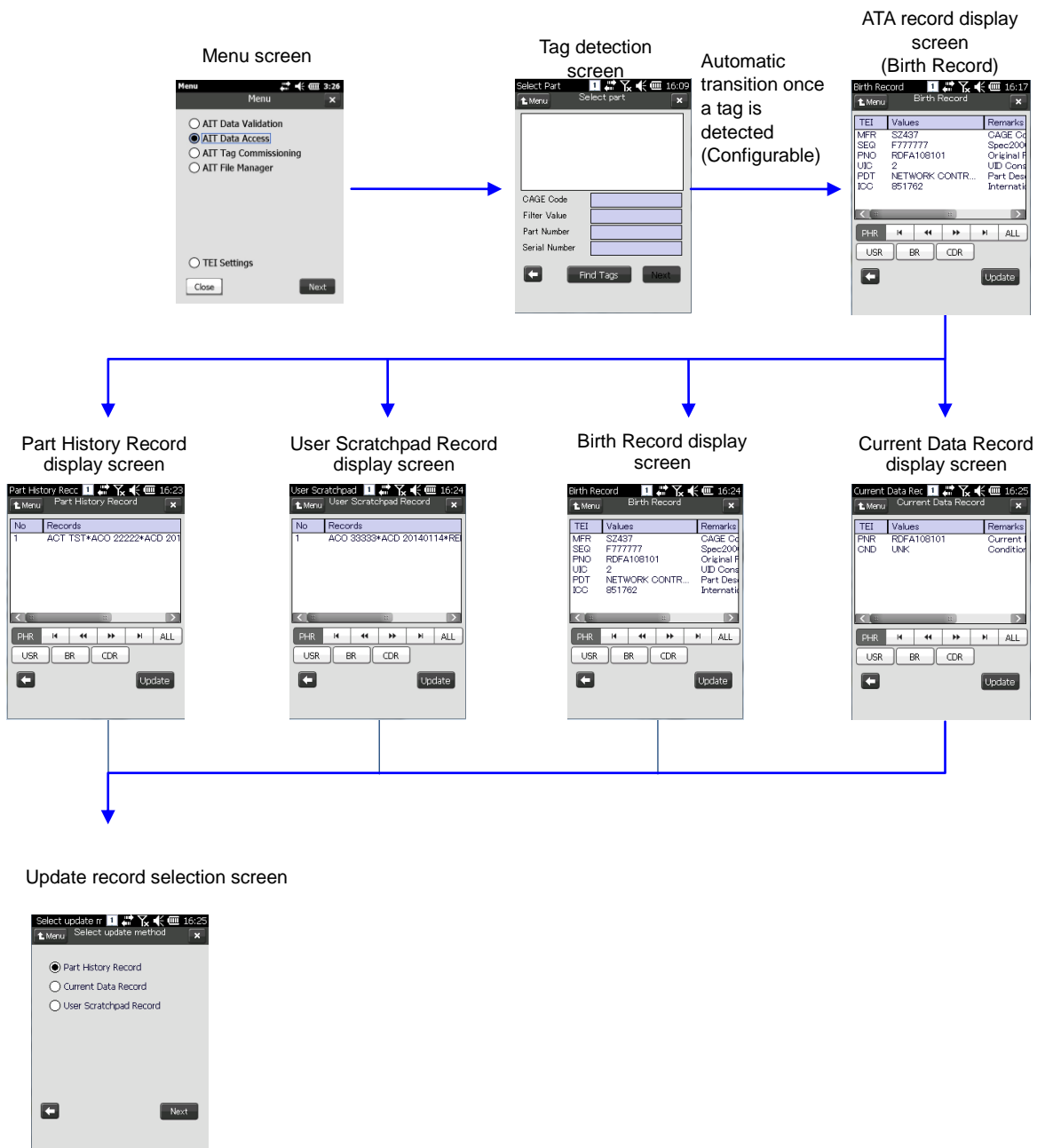
## 1.4 Screen Transitions

The following diagram illustrates the screen transitions of this tool.

### 1.4.1 AIT Data Validation



## 1.4.2 AIT Data Access (MultiRecord)



(continued)

ATA record display screen

TEI	Values	Remarks
PNR	123456789012345	Current
OPN	12345678901234...	Current
CND	SRV	Condition

Update record selection screen

Part History Record  
 Current Data Record  
 User Scratchpad Record

Part History Record update screen

ACT\*  
ACO\*  
ACD\* 20130716  
CND\*

Update result screen

UAGE Code: S2437  
Filter Value: Avionics  
Part Number: RDFFA108101  
Serial Number: F777777

Display Update Info  
Display update info  
2014-01-14 16:31:26  
Part History Record Updated Successfully

Current Data Record update screen

PNR\* 123456789012345  
PML  
OPN 12345678901234567  
CND\* SRV  
EXP  
TDN  
HAZ  
HAZ

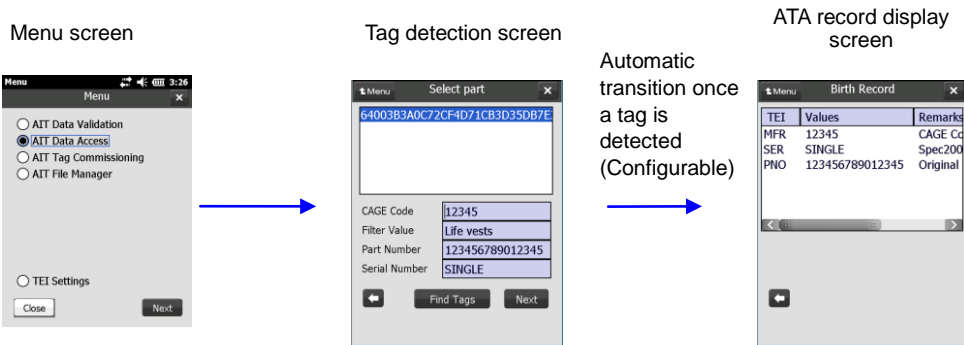
User Scratchpad Record update screen

Enter your comment  
ACO\*  
ACD\* 20130716  
REM

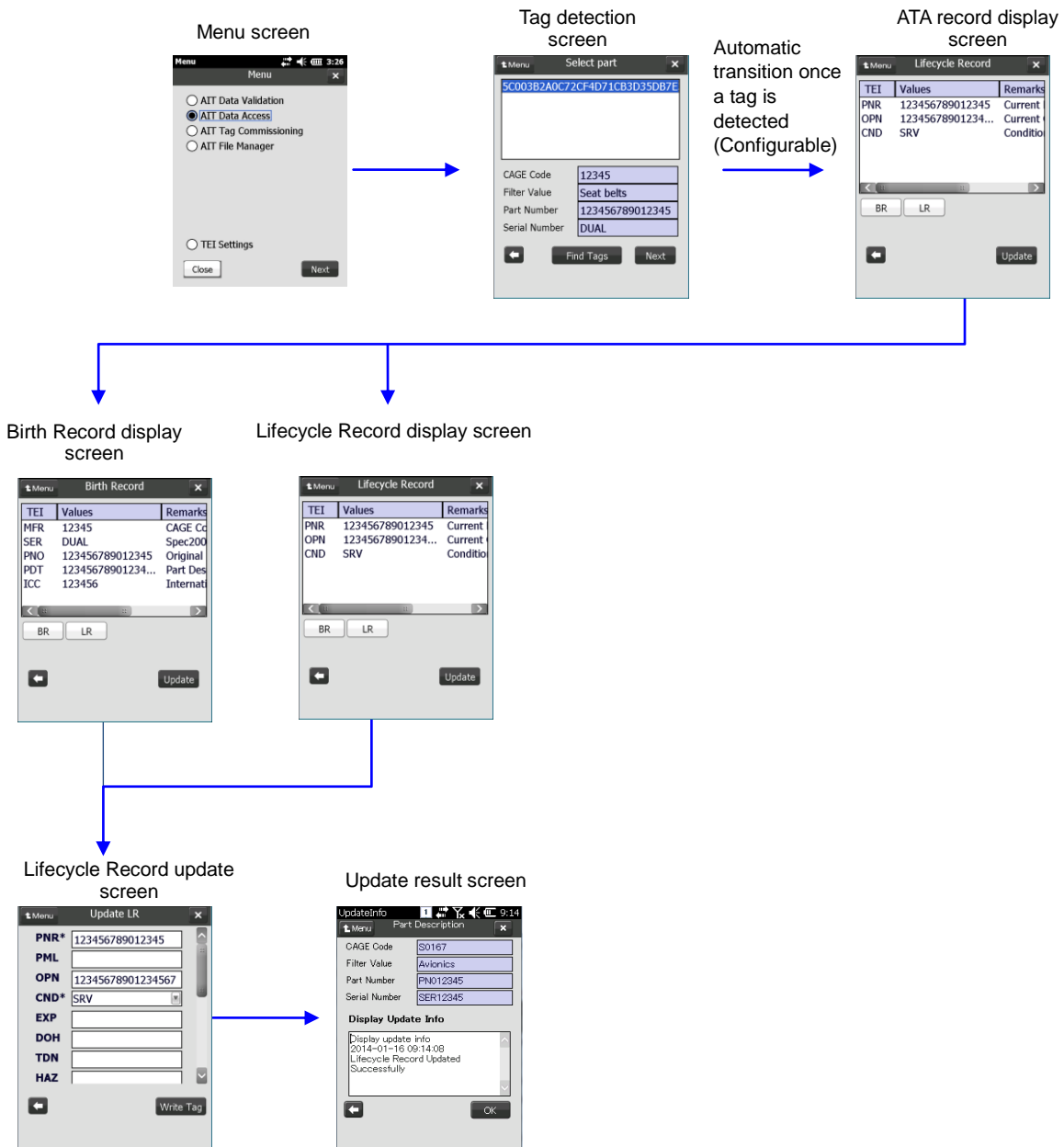


### 1.4.3 AIT Data Access (Single Record)

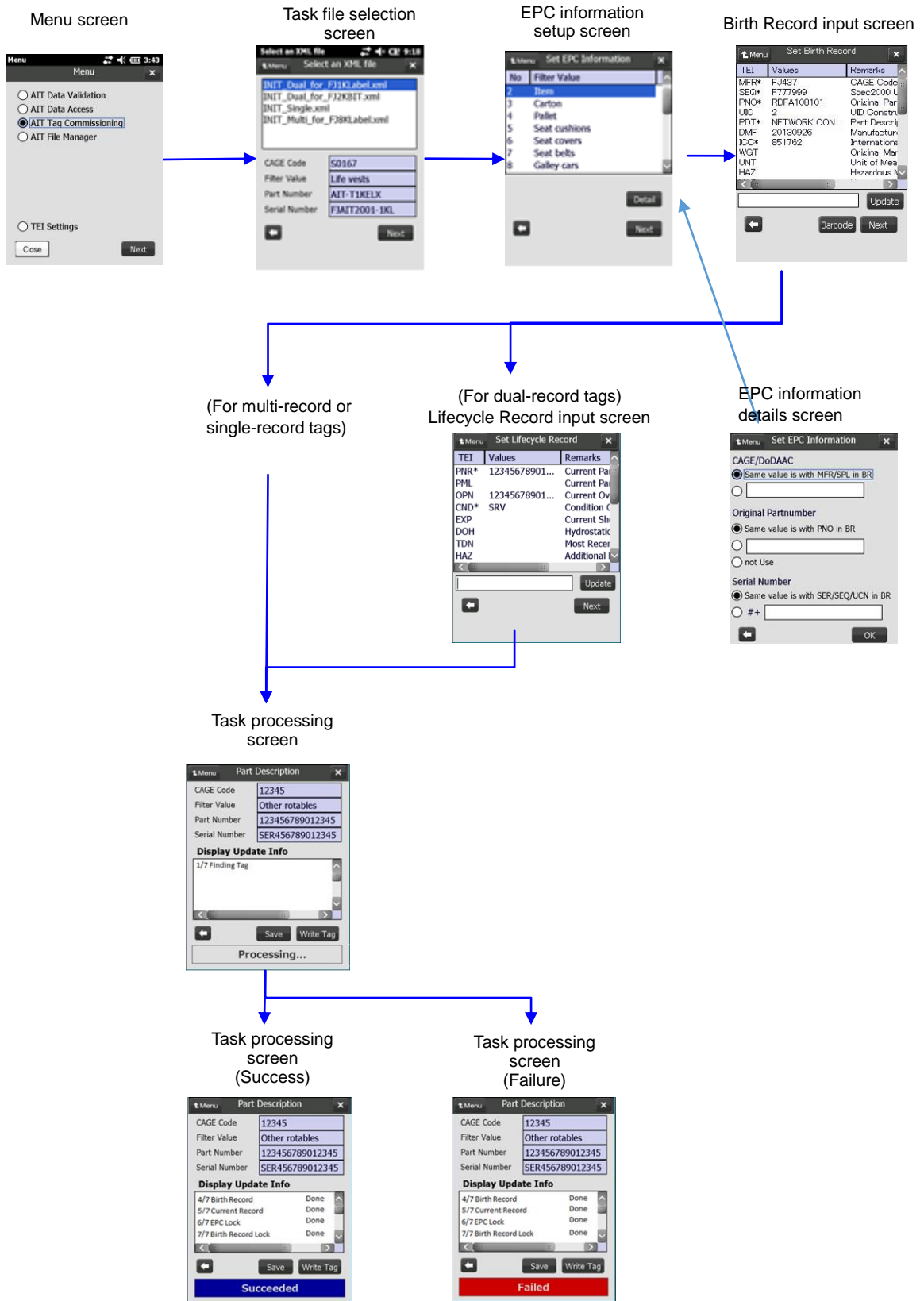
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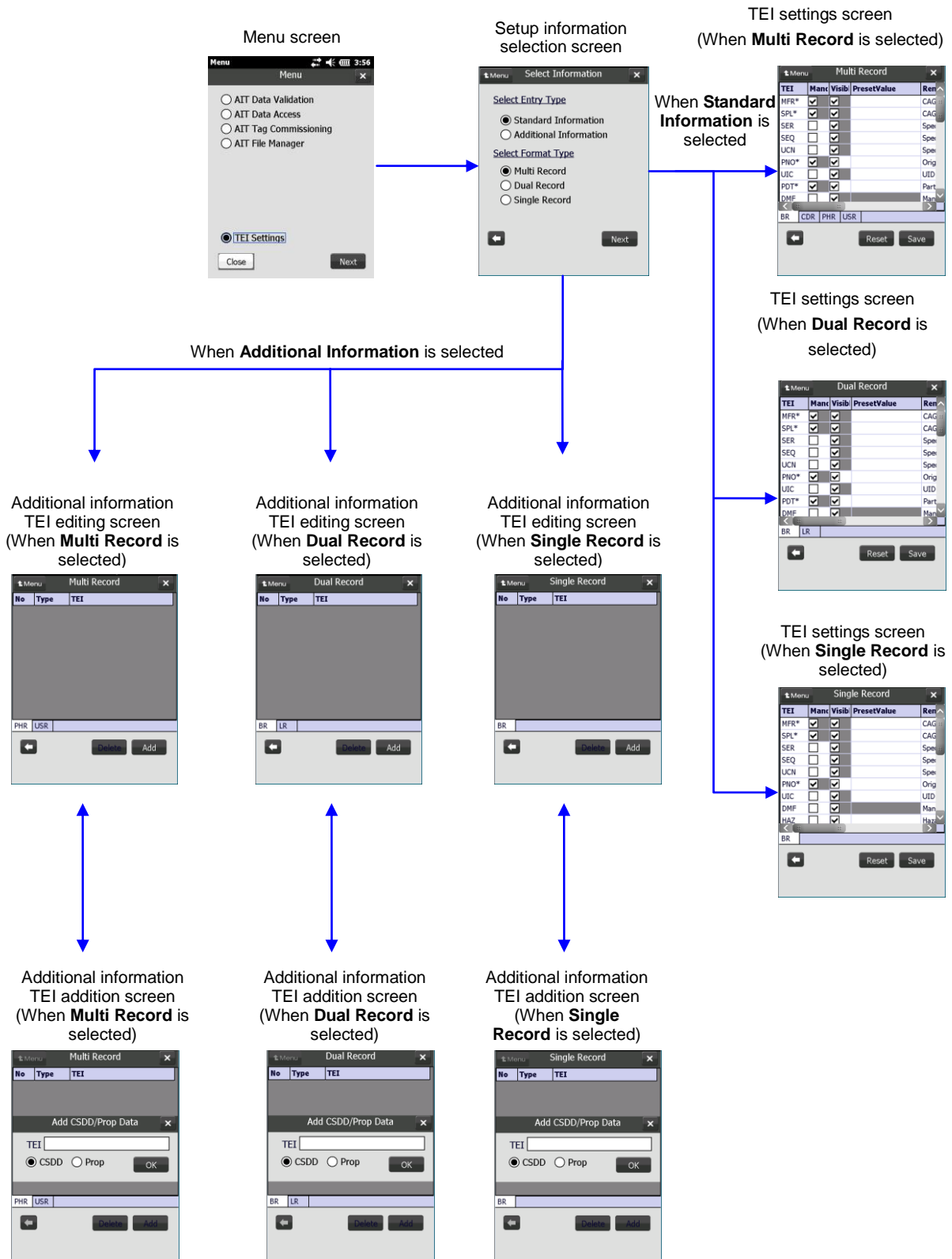
## 1.4.4 AIT Data Access (Dual-Record)



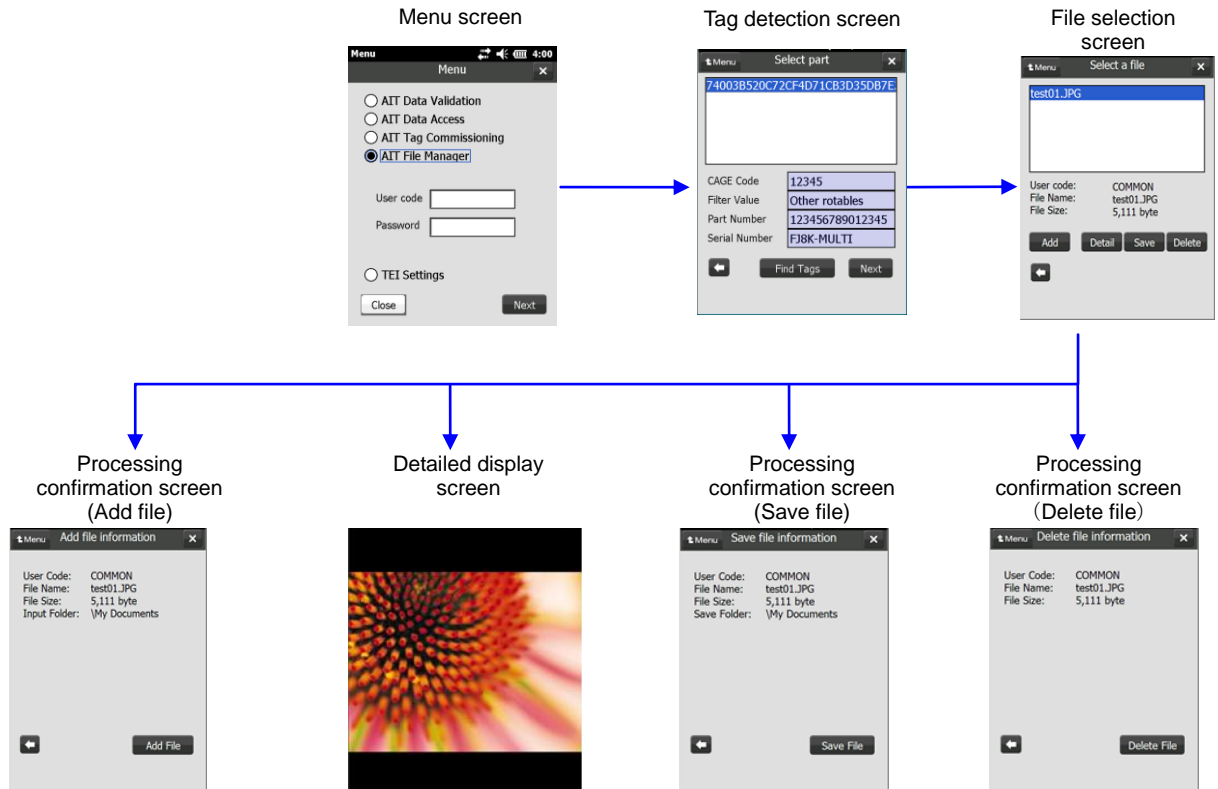
## 1.4.5 AIT Tag Commissioning



# 1.4.6 TEI Settings



## 1.4.7 AIT File Manager



## 1.5 Message Display

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Messages may be displayed in popup dialog boxes, depending on the processing result.

If an error is displayed, the processing has not completed.

Refer to the *RFID Data Management Pro & RFID Label Design and Encoding Management Pro User's Guide (Appendixes)* for the messages displayed in the pop-up dialog box, and eliminate the cause of the error and then try again.

If the cause of the error cannot be identified, make an inquiry to Fujitsu support service.

## 2 Operating Environment

### 2.1 Handheld Devices

#### 2.1.1 Hardware Requirements

This product is only guaranteed to work with the following reader/writer devices.

Manufacturer	Type	Driver, SDK, etc.	Model
Motorola	Handheld	Firmware Ver. 2.2.7002 Symbol.Barcode2.dll 2.5.0.5 Symbol.DLL 1.6.1.4 Symbol.ResourceCoordination.DLL 1.6.1.10	MC9190-Z

#### 2.1.2 Software Requirements

The following software is required to install this tool.

- Windows Mobile 6.5 Classic
- .NET Compact Framework 3.5

#### 2.1.3 RFID Tags

This tool supports the following RFID tags.

- Fujitsu's 2-kilobit RFID tags
- NXP's RFID tags with a 240-bit EPC area and a 512-bit user area
- Impinji's RFID tags with a 128-bit EPC area and a 512-bit user area
- Fujitsu's RFID Integrated Label – 8Kbyte (Large/Medium/Small)
- Fujitsu's RFID Integrated Label – 1Kbyte (Large/Medium/Small)

#### 2.1.4 Configuration of Handheld device

The device ID of handheld device should be changed before using this tool. Refer to “Appendix E Change Device ID of Handheld device” in “RFID Data Management Pro & RFID Label Design and Encoding Management Pro User's Guide (Appendixes)”.

# 3 Operating Procedures

## 3.1 Starting and Stopping the Tool

### 3.1.1 Starting the Tool

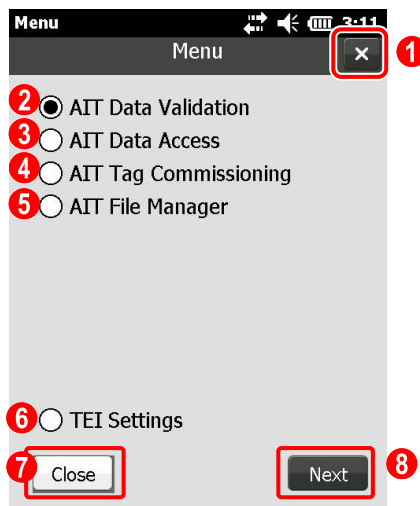
Select **RFID Data Management Pro** from the **Start** menu to display the menu screen.

If **RFID Data Management Pro** does not appear in the **Start** menu, run "\Program Files\Fujitsu\AIT\RFIDDataAccess\RFIDDataAccess.exe".

If this operation is performed while the tool is already running, an additional instance of the tool will not be opened.

#### 3.1.1.1 Menu Screen

The menu screen will be displayed. Select a menu option to call the corresponding function.



**1**  button

This button is used to close this tool.

**2** **AIT Data Validation** radio button

Select this option to start the **AIT Data Validation** function.

Selecting this option will compare the Birth Record data in RFID tag and 2D barcode data printed on the surface of RFID tag. If the data are the same, comparison is passed. If the data are different, detailed information is displayed.

**3** **AIT Data Access** radio button

Select this option to start the **AIT Data Access** function.

Selecting this option will read and update the ATA records.



**4 AIT Tag Commissioning** radio button

Select this option to start the **AIT Tag Commissioning** function.  
This function is used to initialize tags, and edit and save task files.

**5 AIT File Manager** radio button

Select this option to start the **AIT File Manager** function.  
This function is used to manage files in the custom user area.

**6 TEI Settings** radio button

Select this option to start the **TEI Settings** function.  
This function is used to specify whether to show or hide each TEI, the initial values for each TEI, and whether input is mandatory or optional for each TEI.  
This function also edits additional TEIs.

**7 Close button**

This button is used to close this tool.

**8 Next button**

Depending on which option was selected, the screen moves to one of the following screens

- If **AIT Data Validation** was selected  
The screen moves to the tag detection screen.
- If **AIT Data Access** was selected  
The screen moves to the tag detection screen.
- If **AIT Tag Commissioning** was selected  
The screen moves to the task file selection screen.
- If **AIT File Manager** was selected  
The screen moves to the tag detection screen.
- If **TEI Settings** was selected  
The screen moves to the TEI setup information selection screen.


**■Operating procedure**

- (1) Select a menu item.
- (2) Click the **Next** button.

### 3.1.2 Stopping the Tool

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Perform one of following procedures.

- Click the Close button in menu screen.
- Click the  button in menu screen.

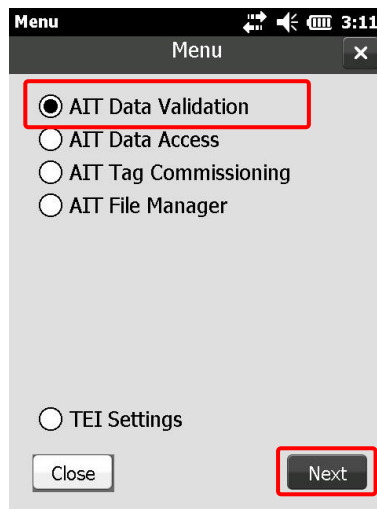
## 3.2 AIT Data Validation

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This function compares the data in RFID tag and 2D barcode data printed on the surface of RFID tag. If the data are the same, comparison is passed. If the data are different, detailed information is displayed.

### ■ Operating procedure

- (1) Select **AIT Data Validation** from the menu screen, and then click the **Next** button.

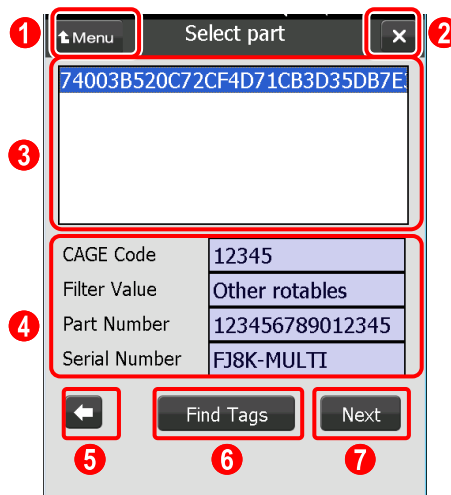


### 3.2.1 Detecting Tags

Use the **Find Tags** button to detect tags, and then select which tag to operate on.

Also, for devices with a trigger enabled, pulling the trigger starts tag detection and releasing the trigger ends tag detection.

The automatic screen transition can be enabled by the configuration file. If it is enabled, the next screen (ATA Records screen) will be automatically displayed according to the information on the first tag detected. If the detected tag is not commissioned, an error message will be displayed. Refer to "Appendixes B.4 AITDataAccessHHT.exe.config" in "RFID Data Management Pro & RFID Label Design and Encoding Management Pro User's Guide (Appendixes)" for the information of configuration file.



**1 Menu button**

This button is used to move to the menu screen.

**2  button**


This button is used to return to the previous screen.

**3 Select part area**

This area displays a list of the tags that have been detected. Select the tag to operate on by clicking it.

**4 Tag data display area**

This area displays information about the tag that has been selected (CAGE Code, Filter Value, Part Number, and Serial Number). "Unknown" is displayed if no information can be obtained from the tag.

5  (Back) button

This button is used to return to the previous screen.

6 **Find Tags** button

This button starts tag detection.

When tag detection starts, the name of the button switches from **Find Tags** to **Stop**.

Clicking the button while **Stop** is displayed terminates tag detection.

Also, once detection has been repeated 500 times, detection ends automatically.

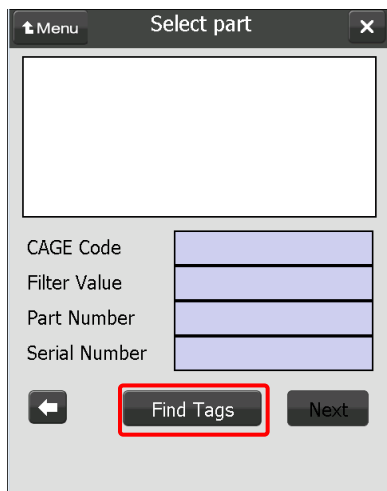
7 **Next** button

This button is used to move to the ATA record display screen.

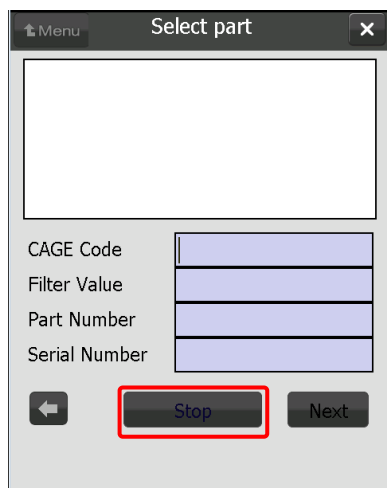
This button is enabled when a tag is selected in the **Select Part** area.

■ **Procedure (operations using buttons)**

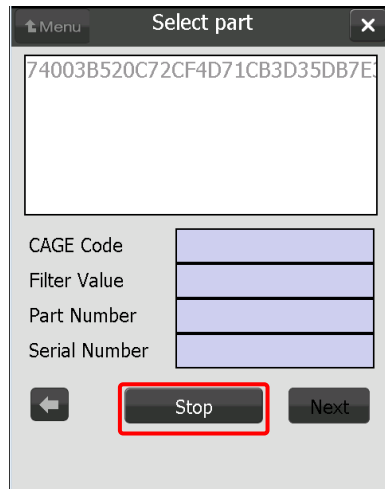
- (1) Click the **Find Tags** button.



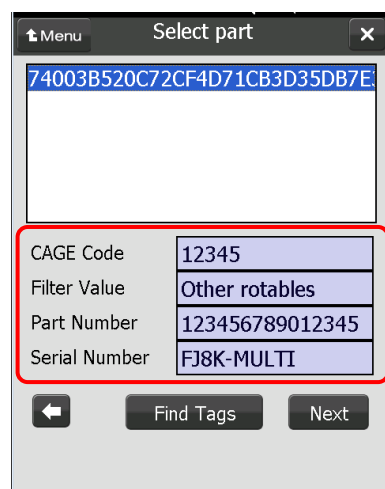
- (2) The name of the button switches from **Find Tags** to **Stop**, and tag detection starts.



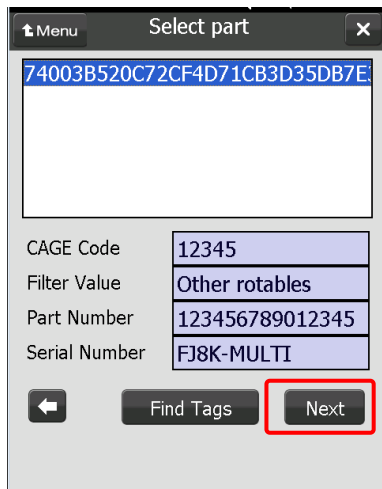
- (3) The tags that have been detected are displayed as a list.
- When tag detection starts and finishes, a WAV sound file is played.
  - A beep sounds each time a tag is detected.



- (4) If the automatic screen transition is enabled by the configuration file, the first tag detected will be automatically selected and the **Next** button will be automatically activated. If the selected tag is not commissioned, an error message will be displayed.
- (5) If the automatic screen transition is not enabled, click the **Stop** button.
- Tag detection will terminate after repeating up to 500 times, or when the **Stop** button is clicked.
- (6) The name of the button switches from **Stop** to **Find Tags**, and tag detection finishes.
- (7) If a tag is selected, the data for the selected tag will be displayed in the tag data display area.

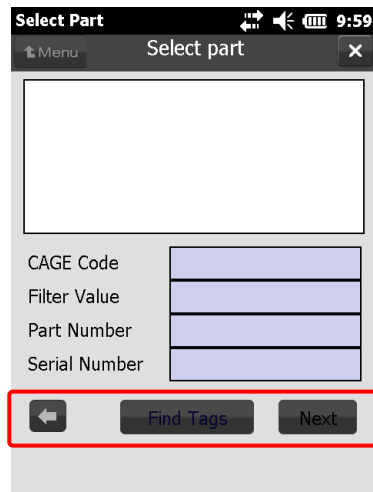


- (8) Select the tag to be processed and then click the **Next** button.  
To return to the menu screen, click the **Back** button.

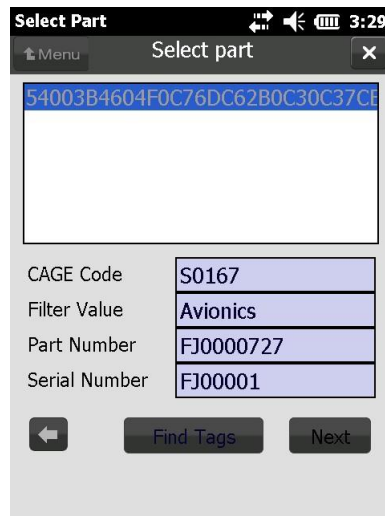


### ■ Procedure (operations using the trigger)

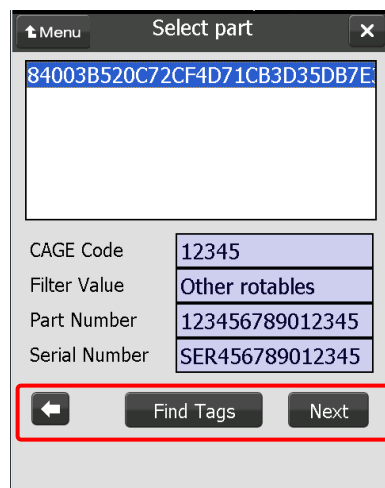
- (1) Pull the trigger (on the handheld device).
- (2) Tag detection will start, and the buttons will be grayed out so that they cannot be clicked.



- (3) The tags that have been detected are displayed as a list.
- When tag detection starts and finishes, a WAV sound file is played.
  - A beep sounds each time a tag is detected.



- (4) Release the trigger.
- Tag detection will terminate after repeating up to 500 times, or until the trigger is released.
- Note: If tag detection does not terminate even though the trigger has been released, pull the trigger again and then release it.
- (5) If the automatic screen transition is enabled by configuration file, the first tag detected will be automatically selected and **Next** button will be automatically clicked after tag detection has finished. If the selected tag is not commissioned, an error message will be displayed.
- (6) If the automatic screen transition is not enabled, after tag detection has finished, the buttons are re-enabled.



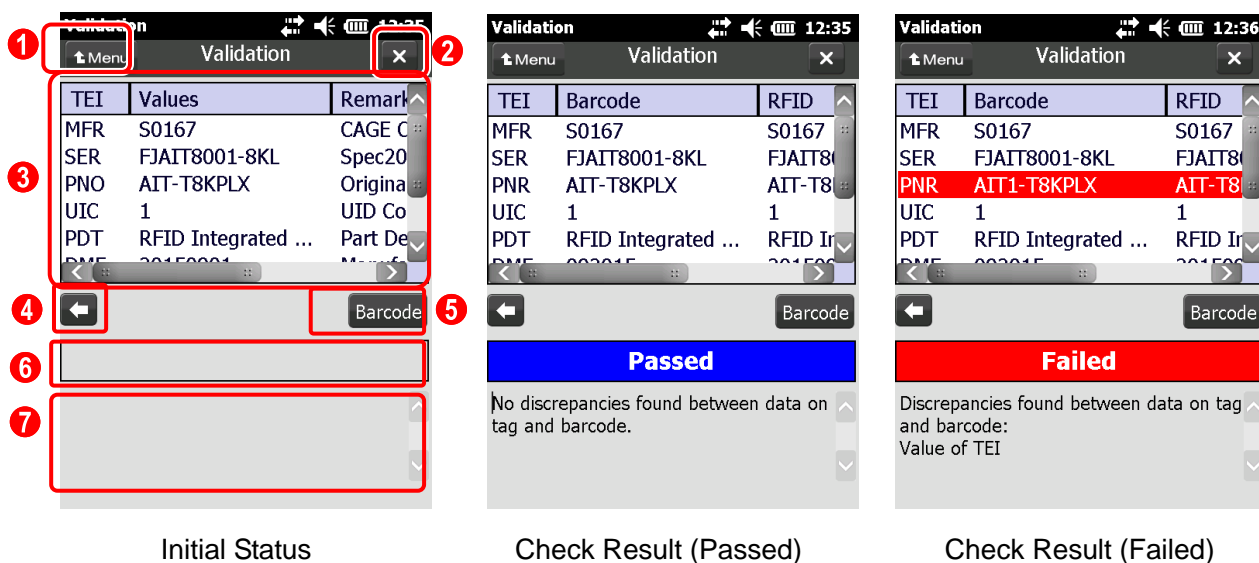
(7) Select the tag to be processed and then click the **Next** button.

To return to the menu screen, click the Back button.

### 3.2.2 Displaying ATA Records

Birth Record for the selected tag is displayed.

Clicking the **Barcode** button initiates the process of scanning the barcode label and comparing the parsed data with the Birth Record data from the RFID tag.



**1 Menu button**

This button is used to move to the menu screen.

**2 Close button**

This button is used to return to the previous screen.

**3 Tag data display area**

This area displays the Birth Record from the selected tag.

**4 Back button**

This button is used to return to the previous screen.

**5 Barcode button**

This button is used to start the process of scanning a barcode label. Pulling the trigger on the mobile reader will also start the process.



Data from the barcode label will be compared with the data retrieved from RFID tag. The comparison result will be displayed on the screen and also output to a csv file. The format of file name is “[MR/DR/SR]-[Device ID of handheld device]\_[Specific information of handheld reader]-yyyymmddhhmmss.csv”.

The csv file will be generated into following folder by default.

\\Program Files\Fujitsu\AIT\RFIDDataAccess\validation

**Note: Format of Barcode Label**

Data Matrix is the only barcode encoding format supported. The business data stored in the barcode should be encoded in either of the following structures:

[TEI]\_[VALUE]/[TEI]\_[VALUE]/.../[TEI]\_[VALUE]

[TEI]\_[VALUE]\*[TEI]\_[VALUE]\*...\*[TEI]\_[VALUE]

Sample:

MFR AB123/SER FJ123/PNO PART999

MFR AB123\*SER FJ123\*PNO PART999

**6 Status Bar**

This area displays the result for comparison.

Message	Meaning
Passed	The data in the RFID tag is exactly the same as the data on the barcode.
Failed	The data in the RFID tag is not exactly the same as the data on the barcode.

**7 Detailed Information**

This area displays the detailed information to reflect the check result.

If the data in the RFID tag is exactly the same as the data on the barcode, the message “No discrepancies found between data on tag and barcode.” is displayed.

If the data in the RFID tag is somehow different from the data on the barcode, the message “Discrepancies found between data on tag and barcode:” is displayed followed by a description of the discrepancies on separate lines.

- The TEI included in the barcode is not found in RFID tag : TEI not found
- Discrepancies in value of TEI: Value of TEI

---

**! Caution** • The RFID data used for the AIT Data Validation is as below.

- Single-record tag: Birth Record
- Dual-record tag: Birth Record and Lifecycle Record
- Multi-record tag: Birth Record and Current Data Record

In the case of same TEI exists in Birth Record and Lifecycle / Current Data Record, only the data in Birth Record is used.

- If the date format in barcode is MMYYYY, the application evaluates the data consistency based on only year and month.
- 

### ■ Operating procedure

- (1) Click **Barcode** button or Pull the trigger of the mobile reader to read the barcode.
- (2) All the buttons on the screen will be disabled after the scanning starts.
- (3) Comparison result will be displayed on the Status Bar and in the Detailed Information area after barcode scanning and data comparison finishes.
  - A WAV sound file is played to indicate the end of the barcode scanning.

Note: If the scanning fails, a pop-up window is displayed. In that case, Push the **OK** button and restart the scanning.

- 
- ! Caution** • A new CSV file for tag data is generated each time the application is started. The csv files should be removed at some point in time to prevent a memory shortage on handheld device.
- The scanning might fail when barcode information is too large.
- 

#### 3.2.2.1 Format of CSV file

The format of csv file recording the comparison result is as follows.

No	Field Name	Detail
1	No	A unique number within the csv file.
2	EPC Header	The value of Header in EPC data written on the tag.
3	EPC Filter Value	The value of Filter Value in EPC data written on the tag.
4	EPC Manager Number	The value of Manager Number in EPC data written on the tag.
5	EPC Original Part Number	The value of Original Part Number in EPC data written on the tag.
6	EPC Serial Number	The value of Serial Number in EPC data written on the tag.
7	Birth Record	The data of Birth Record written on the tag.

No	Field Name	Detail
8	Current Data Record	The data of Current Data Record written on the tag.
9	Lifecycle Record	The data of Lifecycle Record written on the tag.
10	Barcode	The data retrieved from the 2D barcode.
11	Time Stamp	The timestamp at the end of the comparison process.
12	Result	The result of the comparison process. Passed: data on Birth Record and 2D barcode match Failed: data on Birth Record and 2D barcode are somewhat different

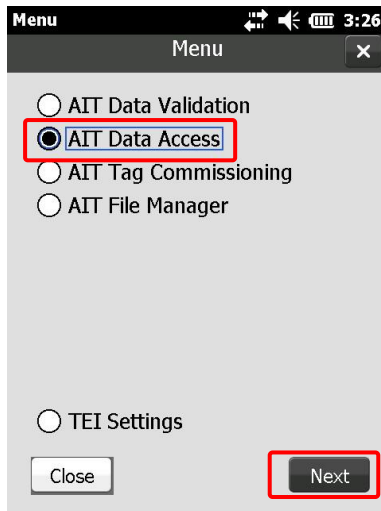
### 3.3 AIT Data Access

---

This function reads and writes ATA records.

#### ■ Operation procedure

- (1) Select **AIT Data Access** from the menu screen, and then click the **Next** button.



#### 3.3.1 Detecting Tags

---

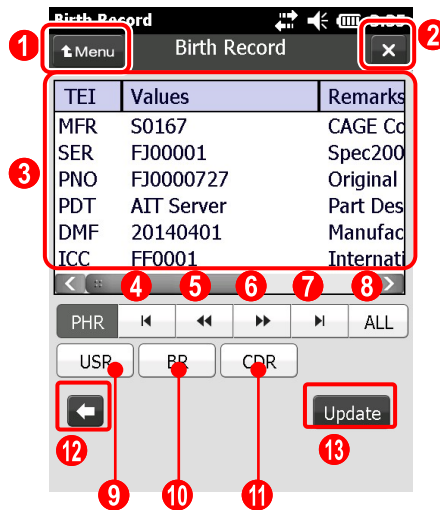
Refer to 3.2.1 [Detecting Tags](#).

### 3.4 Displaying ATA Records

This section explains how to read and display the ATA records for the selected tag. Clicking the **Next** button in the tag detection screen displays the ATA record display screen.

#### 3.4.1.1 Displaying ATA Records (for Multi-Record Tags)

The type of ATA Record initially displayed on this screen can be configured by configuration file. Refer to “Appendixes B.4 AITDataAccessHHT.exe.config” in “RFID Data Management Pro & RFID Label Design and Encoding Management Pro User’s Guide (Appendixes)” for the information of configuration file.



**1 Menu button**





This button is used to move to the menu screen.

**2**  button

This button is used to return to the previous screen.

**3 Tag data display area**

Tag data is displayed in this area.

Clicking the buttons at the bottom of the screen   ,   , **ALL**, **USR**, **BR**, or **CDR**) will read the appropriate ATA record from the tag and display it. In this area

**4**  **(First Part History Record)** button

This button displays the oldest Part History Record.

**5**  **(Previous Part History Record)** button

This button displays the Part History Record immediately before the record that is currently being displayed.


If this button is clicked when no Part History records are displayed, the oldest Part History Record will be displayed.

If this button is clicked after clicking the **ALL** button, then "[IX002] This is the first record, so there is no record before this record" will be output.

**6**  **(Next Part History Record)** button

This button displays the Part History Record next to the record that is currently being displayed.

If this button is clicked when no Part History records are displayed, the most recent Part History Record will be displayed.

**7**  **(Last Part History Record)** button

This button displays the most recent Part History Record.

**8** **ALL** button

This button displays all of the Part History Records.

**9** **USR** button


This button displays the content of the User Scratchpad Record.

**10** **BR** button

This button displays the content of the Birth Record.

**11** **CDR** button

This button displays the content of the Current Data Record.

**12**  **(Back)** button

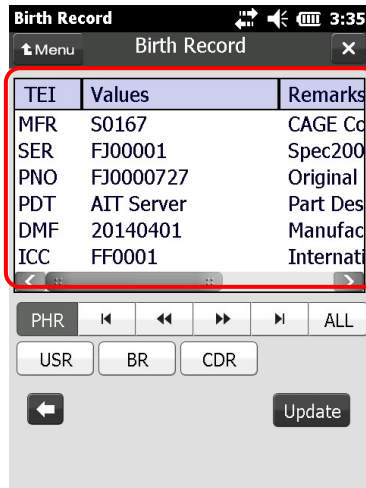
This button is used to return to the previous screen.

**13** **Update** button

This button is used to move to the next screen.

### ■ Operating procedure

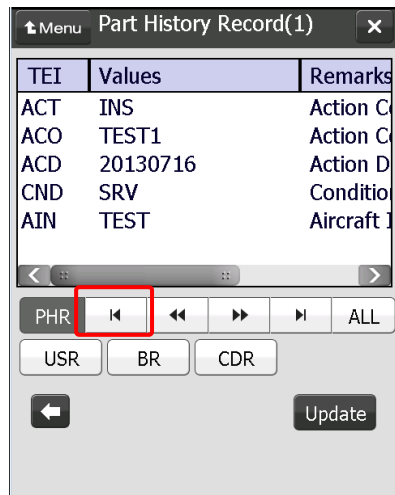
- (1) In the initial display, ATA Record configured by configuration file is displayed. In this case, Birth Data Record is displayed.



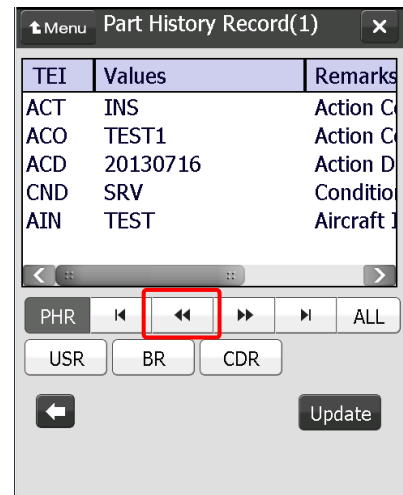
(2) Click each button.

- Sample screens for each button are shown below.

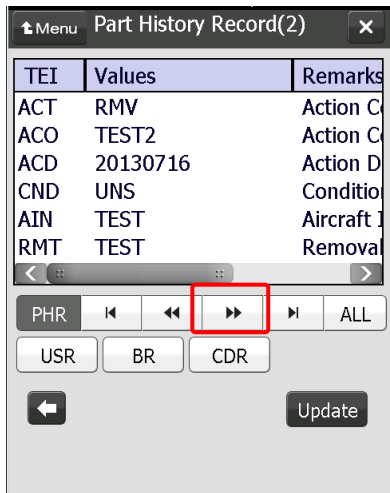
**First Part History Record  
(displaying the first record)**



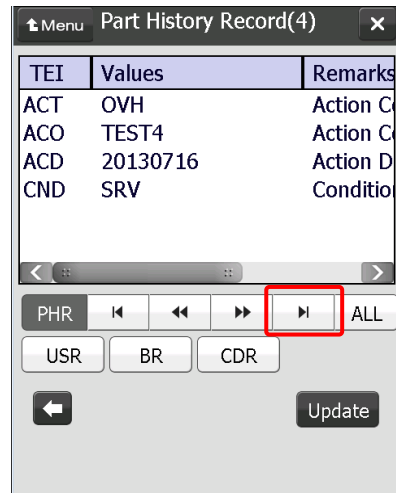
**Previous Part History Record  
(displaying the previous record)**



**Next Part History Record  
(displaying the next record)**

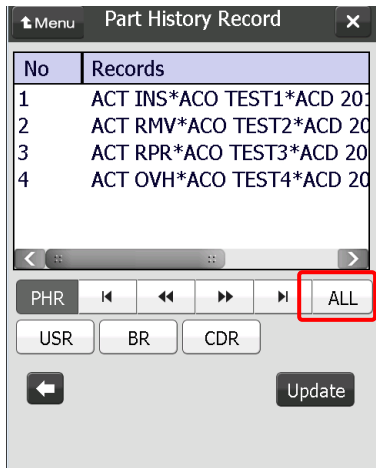


**Last Part History Record  
(displaying the latest record)**



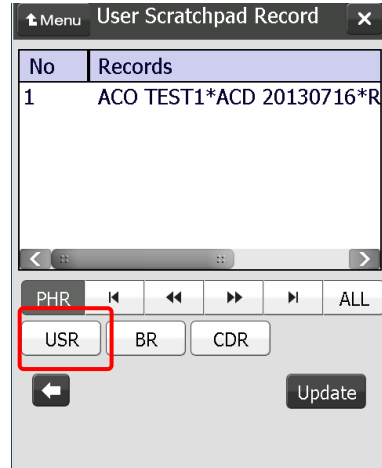
**ALL**

**(displaying all Part History Records)**



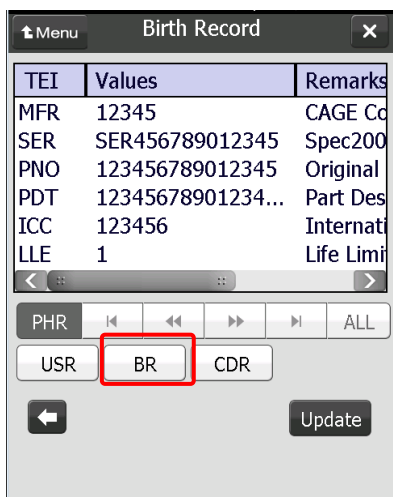
**USR**

**(displaying the User Scratchpad Record)**



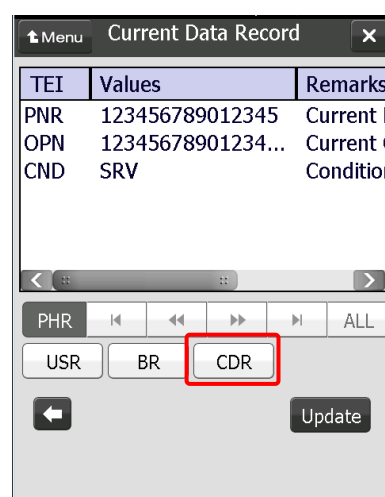
**BR**

**(displaying the Birth Record)**



**CDR**

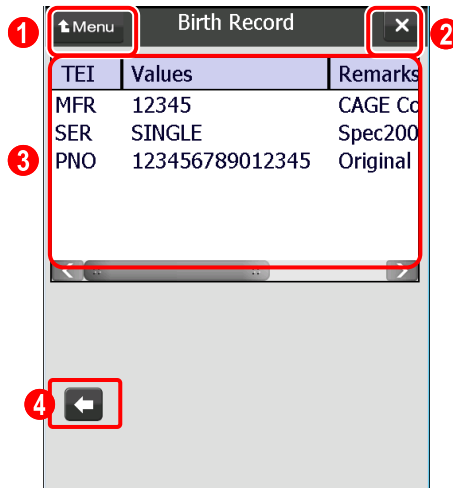
**(displaying the Current Data Record)**







- (3) To update the ATA records on the tag, click the **Update** button.  
To select another tag, click the **Back** button.

### 3.4.1.2 Displaying ATA Records (for Single-Record Tags)

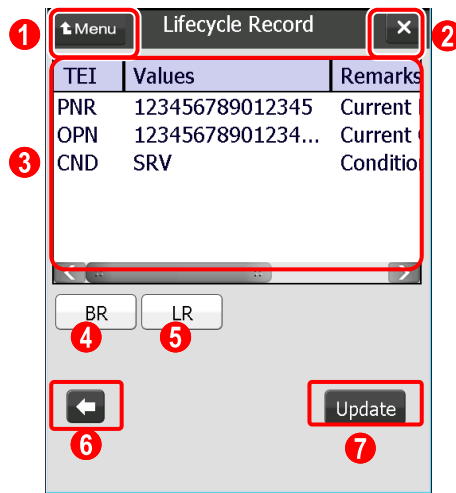


- 1 **Menu** button  
This button is used to return to the menu screen.
- 2  button  
This button is used to return to the previous screen.
- 3 Tag data display area  
This area displays tag data. The content of the Birth Record is initially displayed.
- 4  (Back) button  
This button is used to return to the previous screen.

#### ■Operating procedure

- (1) The Birth Record is initially displayed.

### 3.4.1.3 Displaying ATA Records (for Dual-Record Tags)



**1 Menu** button

This button is used to return to the menu screen.

**2**  button

This button is used to return to the previous screen.

**3** Tag data display area

This area displays tag data. The content of the Lifecycle Record is initially displayed.

Clicking the **BR** button or the **LR** button reads the corresponding ATA records from the tag and displays the records.

**4 BR** button

This button is used to display the content of the Birth Record.

**5 LR** button

This button is used to display the content of the Lifecycle Record.

**6**  (Back) button

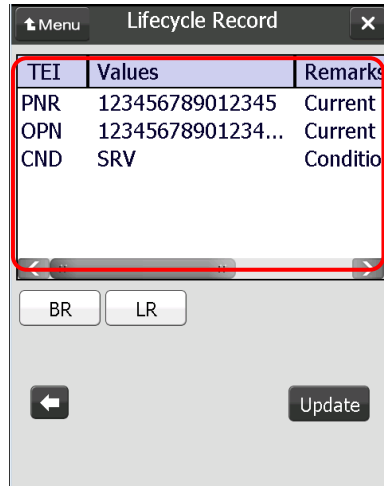
This button is used to return to the previous screen.

**7 Update** button

This button is used to move to the next screen.

## ■ Operating procedure

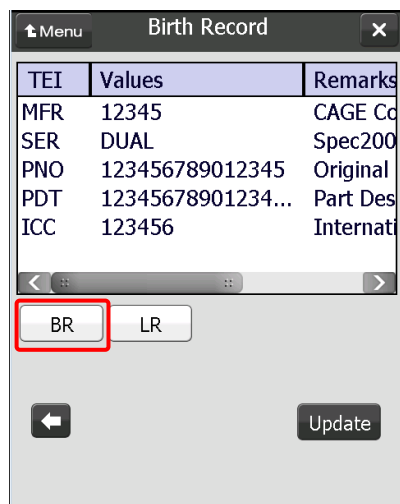
(1) The Lifecycle Record is initially displayed.



(2) Click each button.

- Sample screens for each button are shown below.

**BR**  
(displaying the Birth Record)



**LR**  
(displaying the Lifecycle Record)



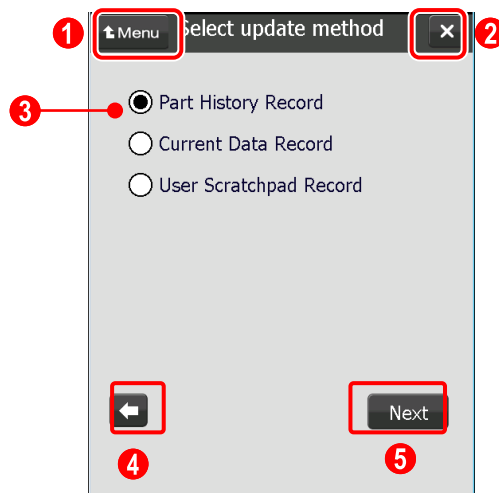
(3) To update the ATA records on the tag, click the **Update** button.  
To select another tag, click the **Back** button.

## 3.4.2 Updating ATA Records

This section explains how to update ATA records on the selected tag.

### 3.4.2.1 Selecting the Record to Update (for Multi-record Tags)

Click the **Update** button in the ATA record display screen to display the update record selection screen.



#### 1 Menu button

This button is used to move to the menu screen.

#### 2 button

This button is used to return to the previous screen.

#### 3 Update record selection option

This option is used to select which ATA record to update.

#### 4 (Back) button

This button is used to return to the previous screen.

#### 5 Next button

This button is used to move to the next screen.

### ■ Operating procedure

- (1) Select the radio buttons for the ATA records to be updated.
- (2) To update the ATA records for which the radio button has been selected, click the Next button.  
To return to the previous screen without updating the ATA records for which the radio

button has been selected, click the Back button.

### 3.4.2.2 Updating ATA Records (for Multi-Record Tags)

#### I. Adding Part History Records

The following screen is used to add Part History Records.

This screen is displayed in the following situations:

- The **Part History Record** radio button is selected on the update record selection screen

The screenshot shows the 'Create PHR' screen with the following fields and annotations:

- 1**: Menu button (top left)
- 2**: Close button (top right)
- 3**: ACT\* (dropdown menu with 'INS' selected)
- 3**: ACO\* (text input field)
- 3**: ACD\* (dropdown menu with '20130717' selected)
- 3**: CND\* (dropdown menu)
- 4**: NHA (text input field)
- 4**: AIN\* (text input field)
- 4**: FHL (text input field)
- 4**: FCL (text input field)
- Back button (bottom left)
- Write Tag button (bottom right)

The screenshot shows the 'Create PHR' screen with the following fields and annotations:

- 5**: ACK (text input field)
- 5**: PRO (text input field)
- 6**: Back button (bottom left)
- 7**: Write Tag button (bottom right)

#### **1** Menu button

This button is used to move to the menu screen.

#### **2** button

This button is used to return to the previous screen.

**3** Traceability Data

- **ACT**: This drop-down list box is used to select the action code.
- **ACO**: This field is used to specify the action company cage code.
- **ACD**: This field is used to specify the action date.
- **CND**: This drop-down list box is used to select the condition code.

**4** Standard Information

Input fields for the TEI corresponding to the value selected for **ACT** will be displayed. Specify the value for each TEI.

**5** Additional Information

These fields are displayed when additional TEIs have been defined.  
Refer to 3.6.3 Editing Additional TEIs.

**6**  (Back) button

This button is used to return to the previous screen.

**7** Write Tag button

This button writes the Part History Record that has been entered to the tag.

When the “Write Tag” button is clicked, the written data to tags is recorded in the XML file as below.

- File name: MR-PHR-device ID\_Specific information-yyyyymmddhhmmss.xml
- Folder (by default): \Program Files\Fujitsu\AIT\RFIDDataAccess\write

---

◆ **Reference:** • The asterisk (“\*”) to the right of the TEI code for some data input fields indicates that the item is a mandatory input item.

---

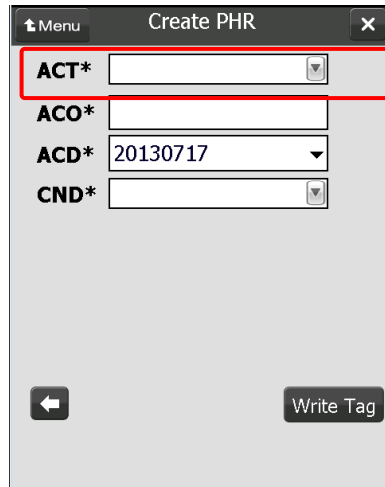
If the Part History Record contains the TEIs maintained on the Current Data Record, the Current Data Record will be updated at the same time.

Automatic updates apply to the TEI elements shown in the following table.

TEIs included in Part History Records	TEIs to be updated for the Current Data Record
CND	CND
LAC (ACT=INS)	LAC
LAC (ACT=RMV)	LAC (no value set)
EXP (ACT=OVH)	EXP
PNR(ACT=MOD)	PNR
PML(ACT=MOD)	PML

## ■Operating procedure

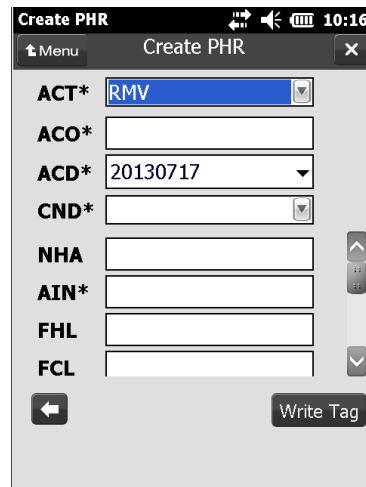
- (1) Select the Action Code (ACT), which is Traceability Data.



The screenshot shows a mobile application window titled "Create PHR". At the top, there is a "Menu" button on the left and a close "X" button on the right. Below the title bar, there are four input fields: "ACT\*" (highlighted with a red box), "ACO\*", "ACD\*" (containing the value "20130717"), and "CND\*". At the bottom of the screen, there is a back arrow button on the left and a "Write Tag" button on the right.

- (2) When a value is selected for **ACT**, the Standard Information corresponding to that value will be displayed in the bottom half of the screen.

### Sample screen where RMV has been selected for ACT



The screenshot shows the "Create PHR" screen with the "ACT\*" field now containing the value "RMV". Below the "CND\*" field, there are four more input fields: "NHA", "AIN\*", "FHL", and "FCL". On the right side of these fields, there are up and down arrow buttons. At the bottom, the back arrow button and "Write Tag" button are still present. The status bar at the top right shows the time as 10:16.

- (3) Set the value for each TEI.
- (4) Click the **Write Tag** button to write the Part History Record and Current Data Record that have been entered to the tag.

To return to the previous screen, click the **Back** button.

## II. Updating Current Data Record

The following screen is used to update the Current Data Record.

This screen is displayed in the following situations:

- The **Current Data Record** radio button is selected in the update record selection screen.

The screenshot shows the 'Update CDR' screen. At the top, there is a header bar with a 'Menu' button (1) on the left and a close button (2) on the right. Below the header, there are several input fields: PNR (123456789012345), PML (empty), OPN (12345678901234567), CND (a drop-down menu), EXP (empty), TDN (empty), HAZ (empty), and another HAZ (empty). At the bottom, there is a back button (4) on the left and a 'Write Tag' button (5) on the right. A red box highlights the main input area, and red circles with numbers 1 through 5 point to the specific buttons mentioned in the text.

### 1 Menu button

This button is used to return to the menu screen.

### 2 button

This button is used to return to the previous screen.

### 3 Standard Information

- **PNR**: This field is used to specify the Current Part Number.
- **PML**: This field is used to specify the Part Modification Level.
- **OPN**: This field is used to specify the Current Overlength Part Number.
- **CND**: This drop-down menu is used to select a Condition Code.
- **EXP**: This field is used to specify the Current Shelf Life Expiration.
- **TDN**: This field is used to specify the Most Recent Authorized Release Certificate Tracking Number.
- **HAZ**: This field is used to specify the Additional Hazardous Material Code.
- **ONR**: This field is used to specify the Owner's Code (for borrowed parts).
- **LAC**: This field is used to specify the Location On Aircraft.
- **ASN**: This field is used to specify the Airline Stock Number.

### 4 (Back) button

This button is used to return to the previous screen.



## 5 Write Tag button

This button writes the Current Data Record that has been entered to the tag.

When the "Write Tag" button is clicked, the written data to tags is recorded in the XML file as below.

- File name: MR-CDR-device ID\_Specific information-yyyymmddhhmmss.xml
- Folder (by default): \Program Files\Fujitsu\AIT\RFIDDataAccess\write

---

◆ **Reference:** • The asterisk ("\*") to the right of the TEI code for some data input fields indicates that the item is a mandatory input item.

---

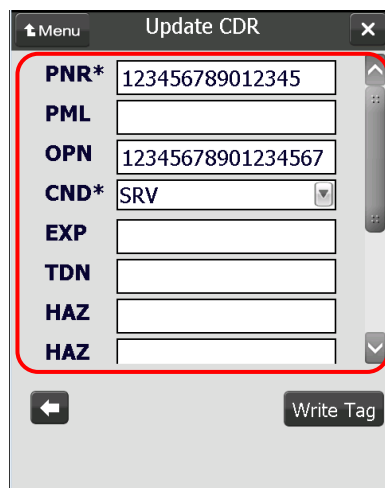
---

! **Caution** • Current Data Record does not have mandatory input items. When nothing is set, the tag is not updated.

---

## ■ Operating procedure

- (1) Set the value for each TEI.



The screenshot shows a mobile application window titled "Update CDR". It contains a list of input fields for various TEI codes: PNR\* (with value 123456789012345), PML, OPN (with value 12345678901234567), CND\* (with value SRV), EXP, TDN, HAZ, and HAZ. A red rectangular box highlights the input fields. At the bottom of the window, there is a "Back" button (left arrow) and a "Write Tag" button.

- (2) Click the **Write Tag** button to write the Current Data Record that has been entered to the tag.

Clicking the **Back** button returns to the previous screen.

### III. Updating the User Scratchpad Record

The following screen is used to update the User Scratchpad Record.

This screen is displayed in the following situations:

- The **User Scratchpad Record** radio button is selected in the update record selection screen

The screenshot shows the top portion of the 'Update USR' screen. At the top left is a 'Menu' button (callout 1) and at the top right is a close button (callout 2). Below these is a large empty text area (callout 3). Underneath is the heading 'Enter your comment'. This is followed by three input fields: 'ACO\*' (callout 4), 'ACD\*' with a dropdown menu showing '20130717', and 'REM'. Below these are two more input fields labeled 'ACK' and 'PRO'. At the bottom are three buttons: a back arrow, 'Add', and 'Replace'.

The screenshot shows the bottom portion of the 'Update USR' screen. The 'ACO\*' field is now filled with '20150717'. The 'ACK' and 'PRO' fields are also visible. At the bottom, the back arrow button (callout 6), 'Add' button (callout 7), and 'Replace' button (callout 8) are highlighted. Callout 5 points to the 'ACK' and 'PRO' input fields.

**1 Menu** button

This button is used to move to the menu screen.

**2**  button

This button is used to return to the previous screen.

**3** ATA record display area

This area displays the User Scratchpad Record that has been read from the tag.

**4** Standard Information

- **ACO**: This field is used to specify the Action Company Cage Code.

- **ACD**: This field is used to specify the Action Date.
- **REM**: This field is used to enter comments or remarks.

Note: Linefeed characters are replaced by spaces when the **Add** or **Replace** button is clicked.

This field might become a mandatory item by other input TEIs.

#### 5 Additional Information

These fields are displayed when additional TEIs have been defined.

Refer to 3.6.3 Editing Additional TEIs.

#### 6 (Back) button

This button is used to return to the previous screen.

#### 7 **Add** button

If the **Add** button is clicked, the content that has been entered in this window will be appended to the existing User Scratchpad Record.

Clicking the **Add** button writes data to the User Scratchpad Record using the following format.

For example, if the previously entered data (ACO SC878\*ACD 20130712\*REM TEST01) is displayed in the User Scratchpad Record display area, then specifying "ACO= KA387, ACD=20130713, REM= TEST02" and clicking the **Add** button will produce "ACO SC878\*ACD 20130712\* REM TEST01\* ACO KA387\*ACD 20130713\* REM TEST02" as User Scratchpad Record data.

If there is not enough space in the User Scratchpad Record area when data is added to the User Scratchpad Record, space will be secured by deleting the oldest data first, and then the new data will be added.

When the **Add** button is clicked, the written data to tags is recorded in the XML file as below.

- File name: MR-USR-device ID\_Specific information-yyyyymmddhhmmss.xml
- Folder (by default): \Program Files\Fujitsu\AIT\RFIDDataAccess\write

#### 8 **Replace** button

If the **Replace** button is clicked, the content of the User Scratchpad Record will be replaced with the content that has been entered in this window.

When the **Replace** button is clicked, the written data to tags is recorded in the XML file as below.

- File name: MR-USR-device ID\_Specific information-yyyyymmddhhmmss.xml
- Folder (by default): \Program Files\Fujitsu\AIT\RFIDDataAccess\write

---

◆ **Reference:** • The asterisk ("\*") to the right of the TEI code for some data input fields indicates that the item is a mandatory input item.

---

## ■Operating procedure

- (1) The content of the User Scratchpad Record on the tag is displayed in the ATA record display area.
- (2) In the Standard information area enter the content to be appended or replaced.
- (3) To add the content of the User Scratchpad Record that has been entered to the content of the ATA record display area, click the **Add** button.

To replace the content of the User Scratchpad Record that has been entered with the content of the update ATA record input area, click the Replace button.

To return to the previous screen, click the Back button.

### 3.4.2.3 Updating ATA Records (for Dual-Record Tags)

#### I. Updating the Lifecycle Record

This screen is used to update the Lifecycle Record.

Click the **Update** button in the ATA record display screen to display the Lifecycle Record update screen.

The image displays two screenshots of the 'Update LR' screen. The top screenshot shows the initial form with fields for PNR\*, PML, OPN, CND\*, EXP, DOH, TDN, and HAZ. The bottom screenshot shows the form after scrolling down, with fields for DOH, TDN, HAZ, HAZ, HAZ, ACK, and \_PRO. Red boxes and numbers 1-6 highlight specific UI elements: 1 (Menu button), 2 (Close button), 3 (Form fields), 4 (ACK/\_PRO fields), 5 (Back button), and 6 (Write Tag button).

**1** Menu button

This button is used to return to the menu screen.

**2**  button

This button is used to return to the previous screen.

**3** Standard Information

- **PNR**: This field is used to specify the Current Part Number.
- **PML**: This field is used to specify the Current Part Modification Level.
- **OPN**: This field is used to specify the Current Overlength Part Number.
- **CND**: This drop-down menu is used to select a Condition Code.
- **EXP**: This field is used to specify the Current Shelf Life Expiration.

- **TDN:** This field is used to specify the Most Recent Authorized Release Certificate Tracking Number.
- **HAZ:** This field is used to specify the Additional Hazardous Material Code.

**4** Additional Information

These fields are displayed when additional TEIs have been defined.

Refer to 3.6.3 Editing Additional TEIs.

**5**  **(Back)** button

This button is used to return to the previous screen.

**6** **Write Tag** button

This button writes the Lifecycle Record that has been entered to the tag.

When the **Write Tag** button is clicked, the written data to tags is recorded in the XML file as below.

- File name: DR-LR-device ID\_Specific information-yyyyymmddhhmmss.xml
- Folder (by default): \Program Files\Fujitsu\AIT\RFIDDataAccess\write

---

**! Caution** • The characters that can be entered are the 6-bit characters defined in table A13-2, "ASCII Conversion Chart" in Appendix 13,"6 Bit ASCII Encoding" of *ATA Spec2000 Rev.2013.1*.

---



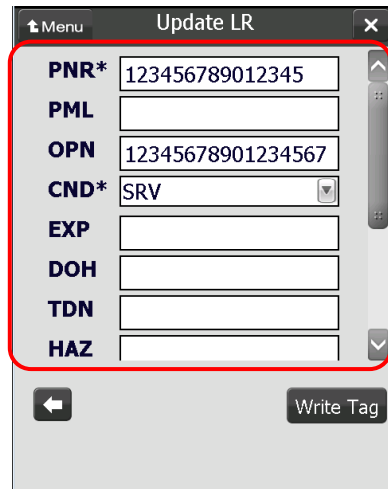
---

**◆ Reference** • The asterisk ("\*") to the right of the TEI label for some data input fields indicates that the item is a mandatory input item.

---

## ■Operating procedure

- (1) Set the value for each TEI.



The screenshot shows a mobile application interface titled "Update LR". The form contains the following fields:

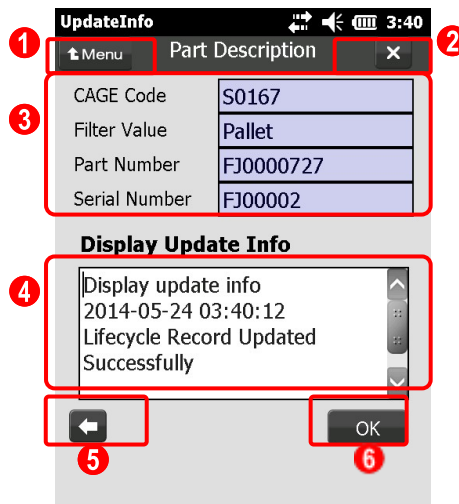
PNR*	123456789012345
PML	
OPN	12345678901234567
CND*	SRV
EXP	
DOH	
TDN	
HAZ	

At the bottom of the screen, there is a "Back" button (left arrow) and a "Write Tag" button.

- (2) Click the **Write Tag** button to write the Lifecycle Record that has been entered to the tag. Clicking the **Back** button returns to the previous screen.

### 3.4.2.4 Checking Update Results

This screen displays the results of executing the ATA record update.



**1 Menu button**

This button is used to move to the menu screen.

**2 × button**

This button is used to return to the previous screen.

**3 Tag data display area**

This area displays information about the tag that has been selected (CAGE Code, Filter Value, Part Number, and Serial Number). "Unknown" is displayed if no information can be obtained from the tag.

**4 Update result display area**

This area displays the update result data.

**5 ← Back button**

This button is used to return to the previous screen.

**6 OK button**

This button closes the update result screen.

The display returns to the ATA record display screen.

#### ■ Operating procedure

- (1) Scroll down to check the result displayed in the update result display area.



- After checking the result, click the **OK** button to move to the ATA record display screen.

### 3.4.2.5 XML Format of "Write Data" , "Add", and "Replace"

No	XML tag	Data
1	<DataAccess>	
2	<TimeStamp></TimeStamp>	Timestamp (yyyy/MM/dd H:m:s)
3	<Action></Action>	"Write"
4	<TID></TID>	TID value
5	<Epc></Epc>	EPC value
6	<EpcHeader></EpcHeader>	EPC Header value
7	<EpcFilterValue></EpcFilterValue>	Filter Value
8	<EpcManagerNumber></EpcManagerNumber>	Manager Number of EPC
9	<EpcOriginalPartNumber></EpcOriginalPartNumber>	Original Part Number of EPC
10	<EpcSerialNumber></EpcSerialNumber>	Serial Number of EPC
11	<BirthRecord></BirthRecord>	Payload in Birth Record
12	<CurrentDataRecord></CurrentDataRecord>	Payload in Current Data Record
13	<UserScratchpadRecord></UserScratchpadRecord>	Payload in User Scratchpad Record
14	<PartHistoryRecord></PartHistoryRecord>	Payload in Part History Record
15	<LifecycleRecord></LifecycleRecord>	Payload in Lifecycle Record
16	<Result></Result>	Result(Success or Failed)
17	</DataAccess>	

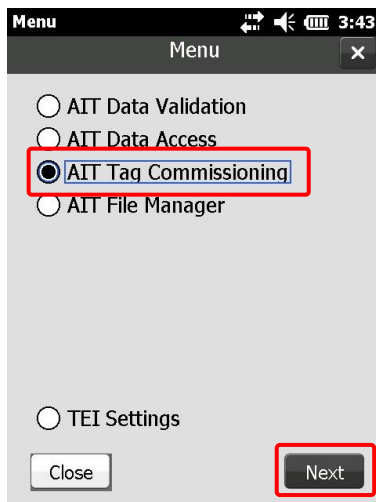
## 3.5 AIT Tag Commissioning

---

This section explains how to initialize tags.

### ■ Operating procedure

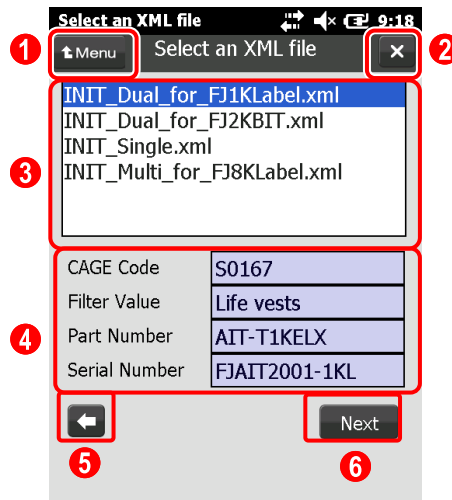
- (1) Select **AIT Tag Commissioning** from the menu screen, and then click the **Next** button.



### 3.5.1 Task Selection

Use the task list to select which task file to use.

- ◆ **Reference** → • Refer to the *RRFID Data Management Pro & RFID Label Design and Encoding Management Pro User's Guide (Appendixes)* for more information about task files.



**1 Menu** button

This button is used to move to the menu screen.

**2**  button

This button is used to return to the previous screen.

**3** Task file list

This list is used to select a task file.

Note: The task files must be saved in the following folder on the handheld device in advance.

The default folder is as follows.

\\My Documents

Task files can be saved on handheld device by implementing the procedure in Appendix A, "AIT Task Files" in the *RFID Data Management Pro & RFID Label Design and Encoding Management Pro User's Guide (Appendixes)*.

The following task files are already available.

- INIT\_Dual\_for\_FJ1KLabel.xml (for the dual-record type of Fujitsu's RFID Integrated Labels – 1Kbyte (Large/Medium/Small))
- INIT\_Multi\_for\_FJ8KLabel.xml (for the multi-record type of Fujitsu's RFID Integrated Labels – 8Kbyte (Large/Medium/Small))
- INIT\_Dual\_for\_FJ2KBIT.xml (for the dual-record type of Fujitsu's 2-kilobit RFID tags)

- INIT\_Single.xml (for the single-record type of Fujitsu's small-capacity RFID tags)

Note: Nothing is displayed in this screen when there is no task file.

**4** Task data display area

This area displays information about the task file selected in the task file list (the CAGE Code, Filter Value, Part Number and Serial Number).

"Unknown" is displayed if no information can be obtained from the task file.

**5**  **(Back)** button

This button is used to return to the previous screen.

**6** **Next** button

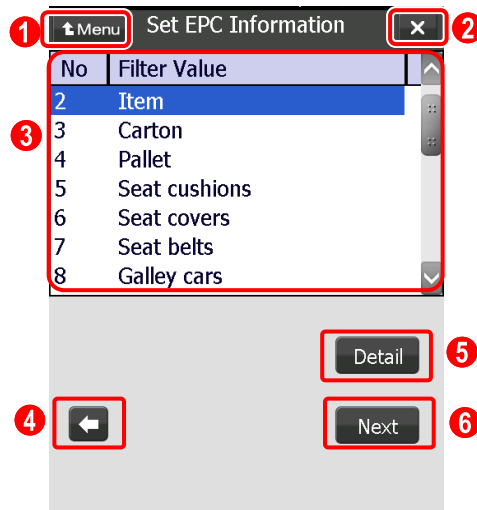
This button is used to move to the EPC Information setup screen.

### ■ Operating procedure

- (1) Select the task file to be used from the task file list.
- (2) Click the **Next** button.

### 3.5.2 Setting up EPC Information

This section explains how to set up the EPC information to be written to the tag.



**1 Menu** button

This button is used to return to the menu screen.

**2**  button

This button is used to return to the previous screen.

**3 Filter Value** list

This list displays the Filter Values that can be selected.

Select the Filter Value to be set to the EPC.

**4**  (Back) button

This button is used to return to the previous screen.

**5 Detail** button

This button is used to move to EPC information details screen.

**6 Next** button

This button is used to move to the Birth Record input screen.

#### ■ Operating procedure

- (1) Use the **Filter Value** list to select the Filter Value to be set to the EPC.
- (2) This button is used to move to EPC information details screen.
- (3) Click the **Next** button.

### 3.5.3 Setting up EPC Information Details

This screen is used to set EPC information in detail.

The screenshot shows a mobile application screen titled "Set EPC Information". At the top left is a "Menu" button with an upward arrow icon (1), and at the top right is a close button with an "X" icon (2). The screen is divided into three sections, each with a red box and a callout number:

- 3 CAGE/DoDAAC:** A radio button is selected for "Same value is with MFR/SPL in BR". Below it is an empty text input field.
- 4 Original Partnumber:** A radio button is selected for "Same value is with PNO in BR". Below it is an empty text input field and a "not Use" radio button.
- 5 Serial Number:** A radio button is selected for "Same value is with SER/SEQ/UCN in BR". Below it is a text input field with "#+" as a placeholder.

At the bottom left is a back button with a left arrow icon (6), and at the bottom right is an "OK" button (7).

**1 Menu button**

This button is used to return to the menu screen.

**2**  button

This button is used to return to the previous screen.

**3 CAGE/DoDAAC**

If the "Same value is with MFR/SPL in Birth Record" is selected, the CAGE/DoDAAC in EPC is automatically copied from MFR/SPL in Birth Record. It is also possible to manually enter CAGE/DoDAAC.


**4 Original Part number**

If the "Same value is with PNO in Birth Record" is selected, the Original Part Number in EPC is automatically copied from PNO in Birth Record. It is also possible to manually enter the Original Part Number.

**5 Serial Number**

If the "Same value is with SER/SEQ/UCN in Birth Record" is selected, the Serial Number in EPC is automatically copied from SER/SEQ/UCN in Birth Record. It is also possible to manually enter the Serial Numbers.

- Start from: Serial Number.

**6**  (Back) button

This button is used to return to the previous screen.

**7 “OK”button**

This button is used to set the EPC information.

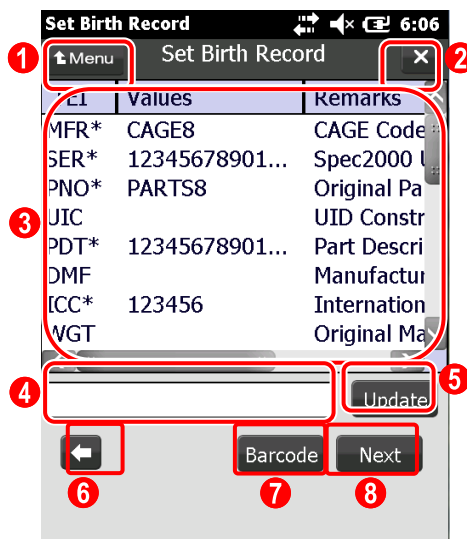
### 3.5.4 Entering Birth Record

This screen is used to enter Birth Record data. The following information is displayed as the initial value.

If an initial value is specified in the **PresetValue** column of the table on the **TEI Settings** screen, that value will be displayed.

If no value is specified in the **PresetValue** column of the table on the **TEI Settings** screen, the value specified in the task file will be displayed.

Also, for devices with a trigger enabled, pulling the trigger starts barcode scanning. Data retrieved from barcode will be displayed on Record data display area after scanning has finished.



**1 Menu button**

This button is used to return to the menu screen.

**2**  button

This button is used to return to the previous screen.

**3 Record data display area**

This area displays the following information.

- **TEI**

This column displays TEIs. An asterisk "\*" is displayed after mandatory elements.

- **Values**

This column displays the value that has been specified for the TEI.

- **Remarks**

This column displays a description of the TEI and the number of digits that can be



entered.

**4** Record data input area

This area displays the value of the TEI selected in the record data display area. The value can be changed if necessary.

Also select an appropriate TEI if necessary.

**5** **Update** button

This button overwrites the value of the TEI selected in the record data display area with the content of the record data input area.

**6**  **(Back)** button

This button is used to return to the previous screen.

**7** **Barcode** button

This button is used to start scanning barcode. Data retrieved from barcode will be displayed on Record data display area after scanning has finished.

Note: Format of Barcode

Data Matrix is the only encoding format of barcode can be supported. The business data stored in barcode should be defined in following structures:

[TEI]\_[VALUE]/[TEI]\_[VALUE]/.../[TEI]\_[VALUE]  
[TEI]\_[VALUE]\*[TEI]\_[VALUE]\*...\*[TEI]\_[VALUE]

Sample:

MFR AB123/SER FJ123/PNO PART999  
MFR AB123\*SER FJ123\*PNO PART999

**8** **Next** button

This button is used to move to the next screen.

To edit the data retrieved from barcode or add new data, perform “**■ Operating procedure (Using barcode)**”.

**■ Operating procedure**

- (1) From the record data display area, select the TEI to be changed.
- (2) In the record data input area, enter the value for the TEI to be changed.
- (3) After you enter the value for the TEI, the value for the TEI in the record data display area will change when the **Update** button is clicked.
- (4) After you finish changing TEI values, click the **Next** button.  
To return to the previous screen, click the **Back** button.

**■ Operating procedure (Using barcode)**

- (1) Pull the trigger toward barcode.
- (2) All the buttons will be disabled after scanning starts.



- (3) The value of TEI in Record data display area will be updated by the value retrieved from barcode.
    - When barcode scanning finishes, a WAV sound file is played.
  - (4) After scanning finishes, click the **Next** button.
    - To return to the previous screen, click the **Back** button.
    - Scanning will finish once the barcode has been read even if keeping pulling trigger.
- Note: If scanning failed, a pop up window will be displayed. Push **OK** and restart scanning.

◆ **Reference** • This tool uses the information entered in the EPC information setup screen and the Birth Record input screen to create an EPC to be written to the tag. The following table shows the correspondence between the input fields and the EPC items.

Input item in this tool	EPC item
EPC information setup screen [Select Filter Value]	Filter Value
Birth Record input screen [MFR/SPL] Set EPC information screen [CAGE/DoDAAC]	Manager number CAGE/DoDAAC
Birth Record input screen [PNO] Set EPC information screen [Original Partnumber]	Original Part Number(PNO)
Birth Record input screen [SER/SEQ/UCN] Set EPC information screen [Serial Number]	Spec 2000 Unique Serial Number (SER or SEQ or UCN)

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**! Caution**

- If scanning failed, the following error message will be displayed and scan will abort.

[IA101] Failed to read barcode.

This tool supports the following types of barcode.

**Data Matrix**

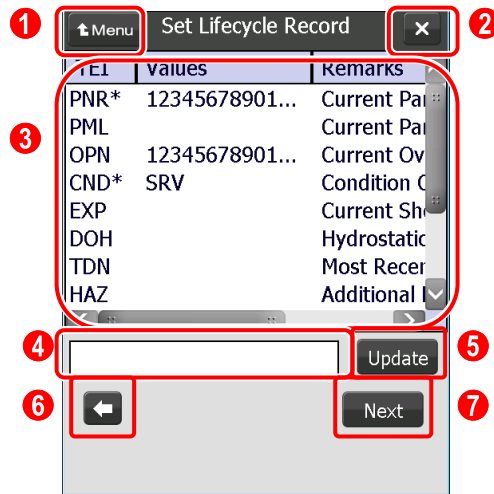
- If a task file that comes with this tool is selected, then sample values will be displayed in the **Values** column of the record data display area. These sample values cannot be used as they are, so change them to the appropriate values. (The same applies to Lifecycle Record input screens.)
  - For single-record and dual-record tags, the only characters that can be used are the 6-bit characters defined in table A13-2, "ASCII Conversion Chart" in Appendix 13, "6 Bit ASCII Encoding" of *ATA Spec2000 Rev.2013.1*. If any other characters are entered, an error message will be displayed and processing will be canceled. The following message will be displayed: "[ER015] Failed to write Birth Record to the tag. (Invalid parameter)"
-

### 3.5.5 Entering Lifecycle Record

This screen is used to enter Lifecycle Record data.

If a task file corresponding to a dual-record tag has been selected in the task file selection screen, the Lifecycle Record input screen will be displayed.

The same values with Birth Record are displayed as the initial values if specified in "Set Birth Record" screen.



**1 Menu button**

This button is used to return to the menu screen.

**2 [X] button**

This button is used to return to the previous screen.

**3 Record data display area**

This area displays the following information.

- **TEI**

This column displays TEIs. An asterisk "\*" is displayed after mandatory elements.

- **Values**

This column displays the value that has been specified for the TEI.

- **Remarks**

This column displays a description of the TEI and the number of digits that can be entered.

**4 Record data input field**

This field displays the value of the TEI selected in the record data display area. The value can

be changed if necessary.

**5 Update** button

This button overwrites the value of the TEI selected in the record data display area with the content of the record data input field.

**6**  **(Back)** button

This button is used to return to the previous screen.

**7 Next** button

This button is used to move to the next screen.

### ■ Operating procedure

- (1) From the record data display area, select the TEI to be changed.
- (2) In the record data input field, enter the value for the TEI to be changed.
- (3) After you enter the value for the TEI, the value for the TEI in the record data display area will change when the **Update** button is clicked.
- (4) After you finish changing TEI values, click the **Next** button.  
To return to the previous screen, click the **Back** button.

---

**! Caution**

- The same values with Birth Record data set in the “Set Birth Record” screen are displayed as the initial values for Lifecycle Record.
  - The characters that can be entered are the 6-bit characters defined in table A13-2, "ASCII Conversion Chart" in Appendix 13, "6 Bit ASCII Encoding" of *ATA Spec2000 Rev.2013.1*. If any other characters are used, an error message will be displayed and processing will be canceled. The following error message will be displayed: "[ER062] Failed to replace Lifecycle Record on the tag.(Invalid parameter)"
-

\* The following table shows the TEIs that inherit the TEI values from the Birth Record.

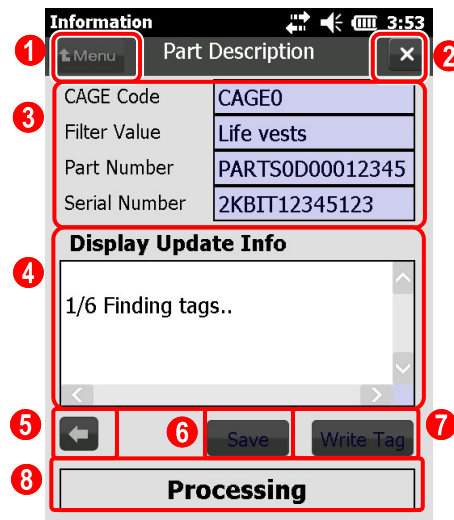
<b>Birth Record TEI</b>	<b>Lifecycle Record TEI</b>
PNO	PNR
HAZ	HAZ
EXP	EXP
OPN	OPN
TDN	TDN

### 3.5.6 Confirmation and Execution

Check the content of the data that was entered in the record input screens, and then execute the processing.

One of the following two types of processing can be selected.

- Writing data to tag
- Creating a task file



**1 Menu** button

This button is used to move to the menu screen.

**2**  button

This button is used to return to the previous screen.


**3** Tag data display area

This area displays tag information (CAGE Code, Filter Value, Part Number and Serial Number) based on the record data that has been entered.

"Unknown" will be displayed if these items cannot be obtained from the record data.

**4** Update confirmation area

This area statuses the writing progress step by step.

**5**  (Back) button

This button is used to return to the previous screen.

**6** **Save** button

This button creates a task file using the data that has been entered.

## 7 Write Tag button

This button writes the content of the record that has been entered to the tag.

When the **Write Tag** button is clicked, the written data to tags is recorded in the XML file as below.

- File name: [MR/DR/SR]-BR-device ID\_Specific information-yyyymmddhhmmss.xml
- Folder: \Program Files\Fujitsu\AIT\RFIDDataAccess\write

## 8 Status Bar

This area displays the status and result for writing tag.

Message	Meaning
Processing...	Process is on progress.
Succeeded	Process succeeded.
Failed	Process failed.

### ■ Operating procedure

- (1) Scroll down to check the input content displayed in the update confirmation area.
- (2) To update the tag with the content displayed, click the **Write Tag** button.
- (3) To create a task file with the content displayed, click the **Save** button.
- (4) Click the **Back** button to return to the Current Data Record input screen or Lifecycle Record input screen.

- 
- ! Caution**
- If multiple tags are detected when a tag is initialized, an error message will be displayed and processing will be canceled.  
The following error message will be displayed: "[IX009] Multiple tags have been detected during initialization."
  - If an attempt is made to initialize a tag that has already been initialized, the initialization will fail. In this case, the tag may become unusable, so never initialize a tag that has already been initialized.
  - CSV file for tag data is newly generated for each start of application. The csv files should be removed at some point in time to prevent a memory shortage on handheld device.



### 3.5.6.1 XML Format of "Commission Data"

The commission data is output in the following XML file format.

No	XML tag	Data
1	<DataEncoder>	
2	<RFIDTag>	Data organized by each writing operation
3	<TimeStamp></TimeStamp>	Timestamp (yyyy/MM/dd H:m:s)
4	<Action></Action>	"Write"
5	<TID></TID>	TID value
6	<Epc></Epc>	EPC value
7	<EpcHeader></EpcHeader>	EPC Header value
8	<EpcFilterValue></EpcFilterValue>	Filter Value
9	<EpcManagerNumber></EpcManagerNumber>	Manager Number of EPC
10	<EpcOriginalPartNumber></EpcOriginalPartNumber>	Original Part Number of EPC
11	<EpcSerialNumber></EpcSerialNumber>	Serial Number of EPC
12	<BirthRecord></BirthRecord>	Payload in Birth Record
13	<CurrentDataRecord></CurrentDataRecord>	Payload in Current Data Record
14	<LifecycleRecord></LifecycleRecord>	Payload in Lifecycle Record
15	<Result></Result>	Result(Success or Failed)
16	</RFIDTag>	
17	</DataEncoder>	

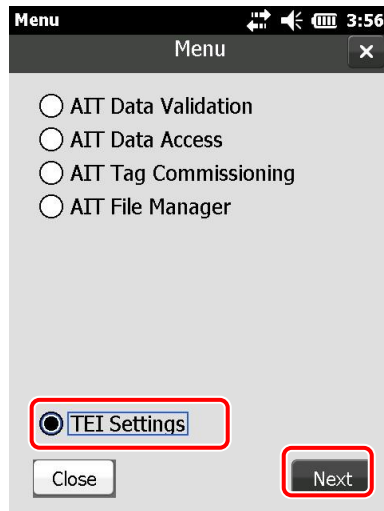
## 3.6 TEI Settings

---

This screen is used to specify whether to show or hide each TEI, the initial values for each TEI, whether input is mandatory or optional for each TEI. It is also used to edit additional information TEIs.

### ■ Operating procedure

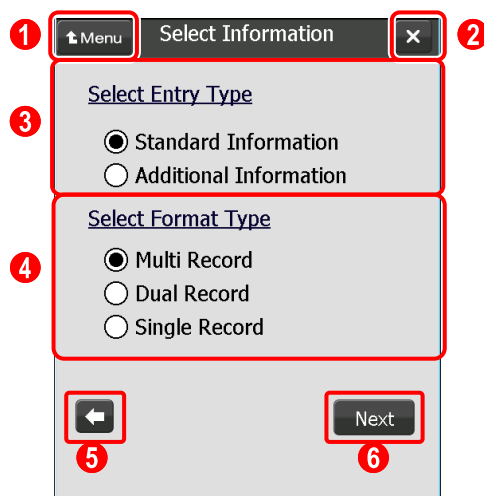
- (1) Select **TEI Settings** from the menu screen, and then click the **Next** button.



### 3.6.1 Selecting TEI Setup Information

---

This section explains how to select TEI setup information.



**1 Menu** button

This button is used to return to the menu screen.

**2**  button

This button is used to return to the previous screen.

**3** Setup information selection radio buttons

These radio buttons are used to select setup information.

- **Standard Information**

Select this radio button to specify whether to show or hide each TEI, the initial values for each TEI, and whether input is mandatory for each TEI.

- **Additional Information**

Select this radio button to edit additional TEIs.

**4** Tag type selection radio buttons

These radio buttons are used to select the record structure to set up.

- **Multi Record**


Select this radio button to set up TEI information for a multi-record tag.

- **Dual Record**

Select this radio button to set up TEI information for a dual-record tag.

- **Single Record**

Select this radio button to set up TEI information for a single-record tag.

**5**  (Back) button

This button is used to return to the previous screen.

**6** Next button

This button is used to move to the next screen.

### ■ Operating procedure

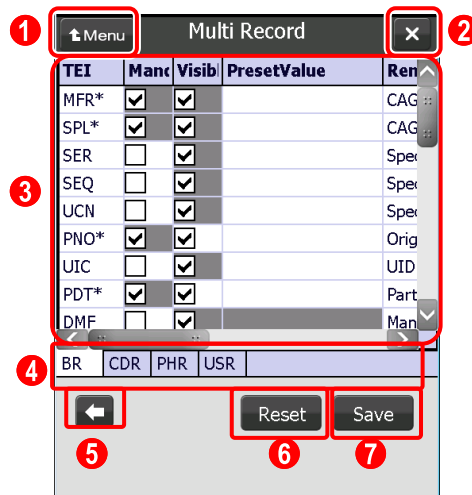
- (1) Use the setup information selection radio buttons to select the record structure to set up.
- (2) Use the Format Type selection radio buttons to select the record structure to set up.
- (3) To edit the selected information, click the **Next** button.
- (4) To return to the previous screen, click the **Back** button.

### 3.6.2 Editing TEI Settings

This section explains how to edit the TEI settings.

This screen is displayed when **Standard Information** is selected for **Select Entry Type** in the TEI setup information selection screen.

The screen displayed corresponds to the record structure selected for **Select Format Type**.



**1 Menu button**

This button is used to return to the menu screen.

**2 X button**

This button is used to return to the previous screen.

**3 TEI settings input area**

This area displays the following information. Values can be entered if necessary.

- TEI**

This column displays TEIs.

- Mandatory**

Select this checkbox to make the TEI mandatory.

It is not possible to clear the checkboxes for TEIs that have been stipulated as "Mandatory" in ATA Spec 2000 Chapter 9-5.

- Visible**

Select this checkbox to display the TEI.

This checkbox is selected by default. To clear the checkbox for a TEI, an initial value for

that TEI must be specified in the **PresetValue** column.

- **PresetValue**

This column is used to set an initial value for the TEI.

- **Remarks**

This column displays the description of each TEI.

4 Record data selection tabs

These tabs are used to select the record type for which TEIs are to be set.

5  **(Back)** button

This button is used to return to the previous screen.

6 **Reset** button

This button restores the TEI settings to their initial state.

7 **Save** button

This button saves the TEI settings.

### ■ Operating procedure

- (1) Use one of the record data selection tabs to select the record type for which the TEI settings are to be edited.
- (2) Enter the TEI settings in the TEI settings input area.
- (3) Click the **Save** button to save the TEI settings that have been edited.
- (4) To return to the previous screen, click the **Back** button.
- (5) To restore the TEI settings to their initial state, click the **Reset** button.

- The following are the TEI setup screens corresponding to the different tag types that can be selected in the TEI setup information selection screen.

**[Multi-record tags]**

TEI	Manc	Visib	PresetValue	Ren
MFR*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		CAG
SPL*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		CAG
SER	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Spec
SEQ	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Spec
UCN	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Spec
PNO*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Orig
UIC	<input type="checkbox"/>	<input checked="" type="checkbox"/>		UID
PDT*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Part
DMF	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Man

BR CDR PHR USR

Reset Save

**[Dual-record tags]**

TEI	Manc	Visib	PresetValue	Ren
MFR*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		CAG
SPL*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		CAG
SER	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Spec
SEQ	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Spec
UCN	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Spec
PNO*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Orig
UIC	<input type="checkbox"/>	<input checked="" type="checkbox"/>		UID
PDT*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Part
DMF	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Man

BR LR

Reset Save

**[Single-record tags]**

TEI	Manc	Visib	PresetValue	Ren
MFR*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		CAG
SPL*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		CAG
SER	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Spec
SEQ	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Spec
UCN	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Spec
PNO*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Orig
UIC	<input type="checkbox"/>	<input checked="" type="checkbox"/>		UID
DMF	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Man
HAZ	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Haz

BR

Reset Save

Note: Areas with gray background indicate items that cannot be edited.

Note: The priorities for the TEI settings for LOT and LTN in the **BR** tab are as follows:

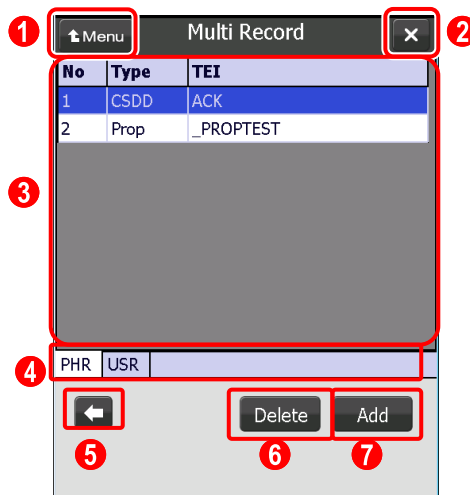
- The display when data is written to a tag and the values that are written to the tag follow the LTN settings only when an initial value for LTN has been specified in the **PresetValue** column but an initial value for LOT has not been specified in the **PresetValue** column.
- In all other cases, the display and the values follow the settings for LOT.

### 3.6.3 Editing Additional TEIs

This section explains how to add or remove additional TEIs.

This screen is displayed when **Additional Information** is selected for **Select Entry Type** in the TEI setup information selection screen.

The screen displayed corresponds to the tag type selected for **Select Format Type**.



**1 Menu button**

This button is used to return to the menu screen.

**2 X button**

This button is used to return to the previous screen.

**3 Additional information TEI display area**

This area displays the following information.

- **No**

This column displays the serial number.

- **Type**

This column displays the type of the additional information TEI.

TEIs listed in "ATA Common Support Data Dictionary (CSDD)" are displayed as "CSDD".

TEIs that have been specifically defined by the user are displayed as "Prop" (Proprietary).

- **TEI**

This column displays additional TEIs that have already been defined.

**4 Record data selection tabs**

These tabs are used to select the record type for which additional TEIs are to be displayed or

edited.

**5**  **(Back)** button

This button is used to return to the previous screen.

**6** **Delete** button

This button deletes the TEI selected in the additional information TEI display area.

**7** **Add** button

This button is used to display the additional information TEI addition screen.

### ■ Operating procedure

- (1) Use one of the record data selection tabs to select the record type for which additional TEIs are to be displayed or edited.
- (2) To delete one of the additional information TEIs that are displayed, select a TEI displayed in the additional TEI display area, and then click the **Delete** button.
- (3) To add an additional TEI, click the **Add** button.
- (4) To return to the previous screen, click the **Back** button.



- The following are the additional information TEI editing screens corresponding to the different tag formats that can be selected in the TEI setup information selection screen.

**[Multi-record tags]**

No	Type	TEI

PHR   USR

←   Delete   Add

**[Dual-record tags]**

No	Type	TEI

BR   LR

←   Delete   Add

**[Single-record tags]**

No	Type	TEI

BR

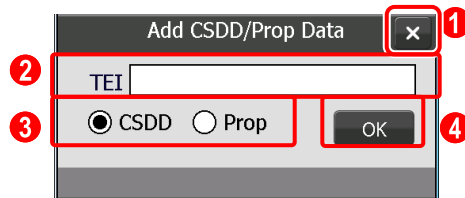
←   Delete   Add

### 3.6.4 Adding Additional TEIs

---

This section explains how to add additional TEIs.

This screen is displayed by clicking the **Add** button in the additional information TEI editing screen.



**1**  button

This button is used to return to the previous screen.

**2** Additional information TEI input field

This field is used to enter an additional TEI.

Refer to the *RFID Data Management Pro & RFID Label Design and Encoding Management Pro User's Guide (Appendixes)* for details on the input specifications for additional TEI.

**3** Additional information TEI type selection radio buttons

These radio buttons are used to select the type of the additional information TEI to be added.

- **CSDD**: Select this radio button to add a TEI listed in "ATA Common Support Data Dictionary (CSDD)".
- **Prop**: Select this radio button to add a TEI that the user can define freely.

**4** **OK** button

Clicking this button adds the TEI that has been entered in the addition information TEI input field.

## ■ Operating procedure

- (1) In the additional information TEI editing screen, select the record to which an additional information TEI is to be added.
- (2) Click the **Add** button in the additional information TEI editing screen.
- (3) Use the additional information TEI type selection radio button to select the type of the additional information TEI to add.
- (4) Enter the TEI to be added in the additional information TEI input field.
- (5) Click the **OK** button. The TEI that has been added will be displayed in the additional information TEI display area of the additional information TEI editing screen. If **Prop** has been selected using the additional information TEI type selection radio button, an underscore ("\_") will be prepended to the TEI name when it is displayed.

---

### ! Caution

- In order to enter values for additional TEIs, the additional TEIs must be set up for each handheld device.
  - The information for additional TEIs is saved in the "additional-setting.xml" file. By copying the "additional-setting.xml" file to another handheld device, the additional information TEI settings can be inherited on the other handheld device.  
The "additional-setting.xml" file must be located in the installation folder.  
Copy the "additional-setting.xml" file and then start this tool.
  - The "additional-setting.xml" file must be read and written.
-

## 3.7 AIT File Manager

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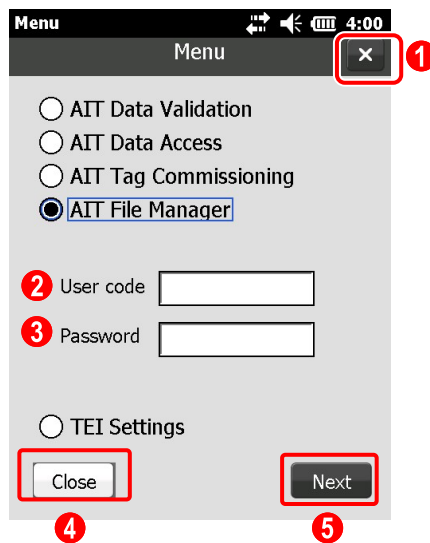
This function is used to manage files in the custom user area.

- ! Caution**
- The AIT File Manager function supports only 8Kbyte tag. Please make an inquiry to Fujitsu support service if using it.
- 

### 3.7.1 Entering the User Code

---

Selecting **AIT File Manager** in the menu screen displays the **User code** and **Password** input fields. Enter the user code and password that have been registered on the tag in the **User code** and **Password** input fields.



- 1**  button

This button is used to close this tool.

- 2** **User code** input field

This field is used to enter the user code that has been registered on the tag.

- 3** **Password** input field

This field is used to enter the password corresponding to the user code that has been registered on the tag.

- 4** **Close button**

This button is used to close this tool.

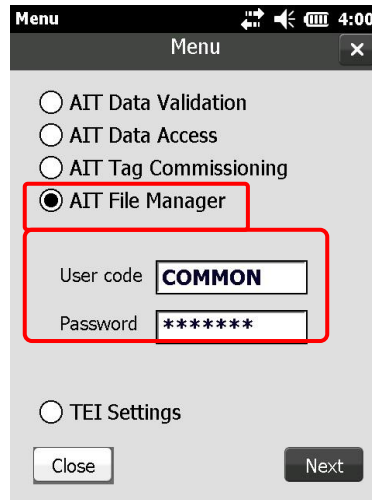
- 5** **Next button**

The button is used to move to the tag detection screen.

## ■ Operating procedure

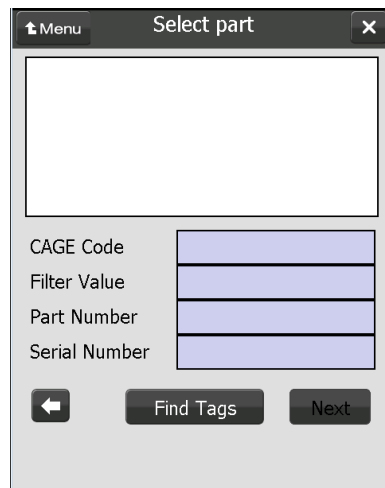
- (1) Clicking the **AIT File Manager** radio button displays the **User code** and **Password** input fields.

Enter the user code and password that have been registered on the tag.



- (2) Click the Next button.

- The tag detection window will be displayed.



- 
- ! Caution** • To register user codes and passwords, use the fixed reader version of the RFID Data Management Pro.
- 

### 3.7.2 Detecting Tags

Refer to Section 3.2.1 Detecting Tags for information on how to perform tag detection operations.

### 3.7.3 File Operations

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This section explains how to operate on the selected file.

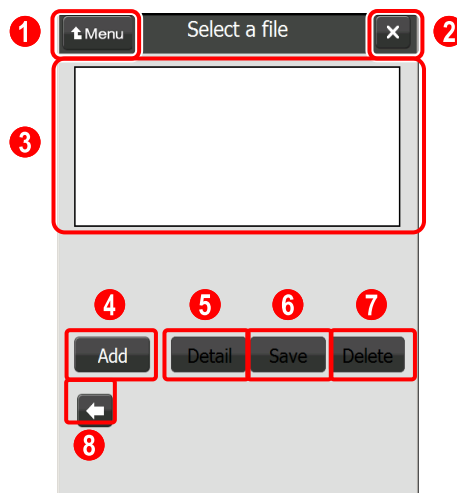
Only those files associated with the user code that has been entered will be displayed in the file list.

Select the target file from the list, and then perform one of the following operations: detailed display, add, delete, or save.

- 
- ! Caution**
- With this tool, the space remaining in the custom user area and the total size of the custom user area are not displayed.
  - The files added using this tool are unlocked.
  - With this tool, the locked/unlocked status of files is not displayed.
- 

#### 3.7.3.1 Displaying a List of Files

If the files corresponding to the entered user code have not been saved, only the **Add** button and the Back button will be enabled, as shown in the following screen.



**1 Menu button**

This button is used to move to the menu screen.

**2 X button**

This button is used to return to the previous screen.

**3 Select a file area**

This area displays a list of the files in the custom user area that correspond to the user code that has been entered.

**4 Add button**

This button writes the files stored on the handheld device to the tag.

This button displays the **Open** dialog box and writes the selected file to the tag.

If a file with the same name as the selected file exists on the tag, the newly written file will be renamed automatically (e.g., "Sample(1).txt") before written to the tag. It is normally better to write files with different names to the tag.

**5 Detail button**

This button displays the contents of the files that are stored on the tag.

This button displays the selected file by automatically executing the appropriate program based on the extension of the file.


**6 Save button**

This button saves the files stored on the tag to the handheld device.

The file that is selected will be saved to the folder selected in the **Save As** dialog box.

**7 Delete button**

This button deletes the selected file from the tag.

**8  (Back) button**

This button is used to return to the previous screen.

**■Operating procedure**

- (1) Select a file. (For the **Add** operation, there is no need to select a file.)

Click the button corresponding to the operation to perform.

### 3.7.3.2 Adding Files

This section explains how to write the files stored on the handheld device to the tag.

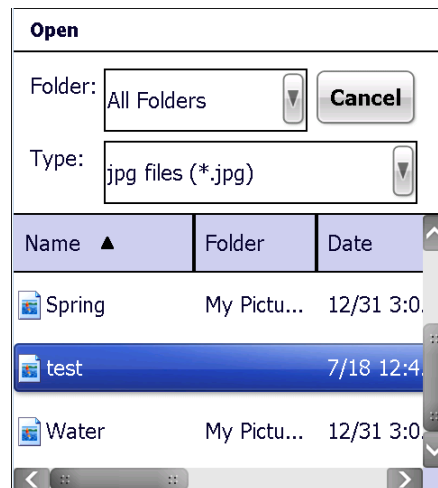
The file selected in the **Open** dialog box can be written to the tag.

#### ■ Operating procedure

- (1) Click the **Add** button.



- (2) Select and double click on the target file in the **Open** dialog box that is displayed. Clicking the **Cancel** button returns to the previous screen.



- 
- ◆ **Reference:**
    - Specify the file name using no more than 15 ASCII characters, including the file extension. If the source file name is more than 15 characters long, take appropriate action such as changing the file name before specifying it.
    - If a file with the same name as an existing file is written for the same user, then the newly written file will be renamed automatically (such as "Sample(1).txt"). Note that in this case the characters that are added as part
-

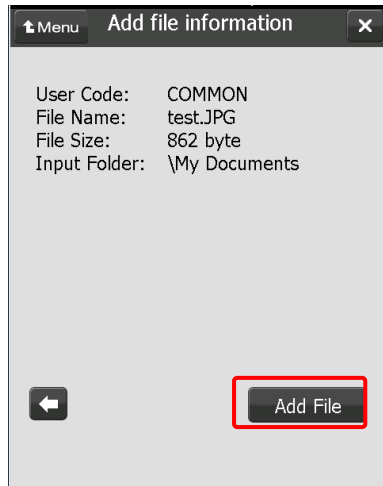


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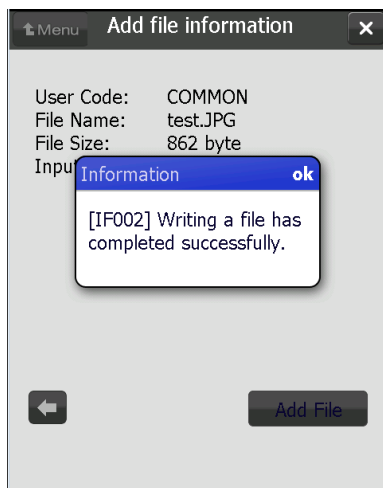
of the renaming process are also included within the 15 character limit for the length of the file name.

---

- (3) Check the file information in the confirmation screen that is displayed, and then click the **Add File** button



- (4) If the file is successfully written to the tag, the following message will be displayed. Clicking on the message returns the display to the file list screen.

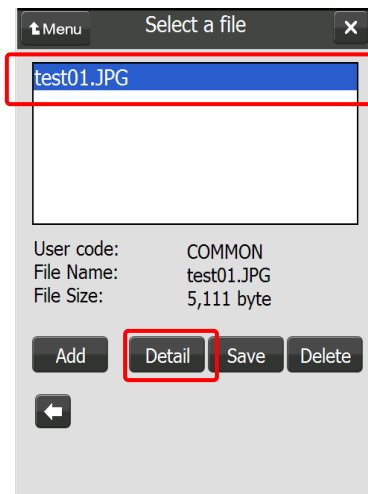


### 3.7.3.3 Displaying File Details

This section explains how to display the contents of the files that are stored on the tag. The selected file will be displayed with the appropriate application.

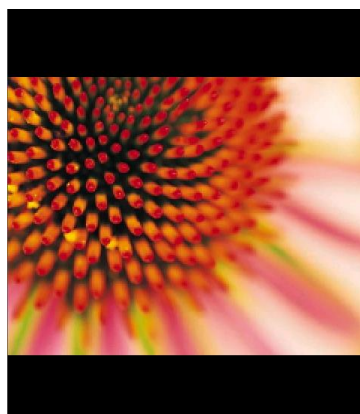
#### ■Operating procedure

- (1) Select a file and then click the **Detail** button.



- (2) The selected file will be displayed by automatically executing the appropriate program based on the extension of the file.

Sample window displayed when an image file has been selected

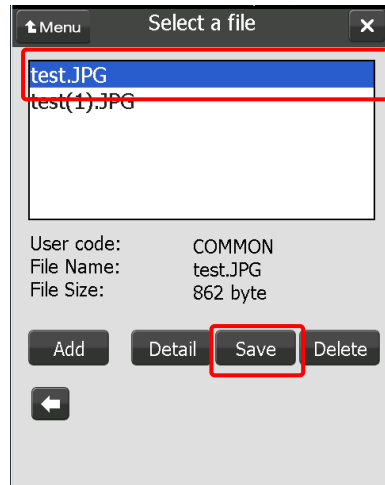


### 3.7.3.4 Copying Files

This section explains how to save the files stored on the tag to the handheld device. A file on the tag can be saved to the folder selected in the **Save As** dialog box.

#### ■Operating procedure

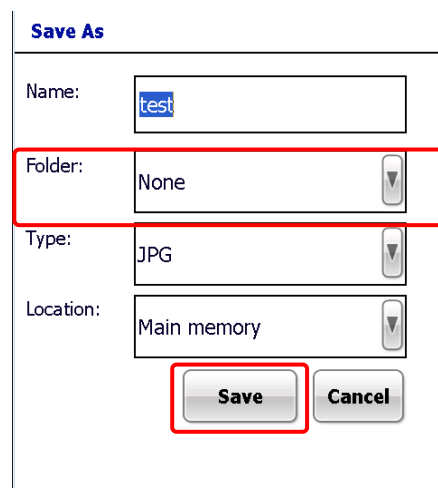
- (1) Select a file and then click the **Save** button.



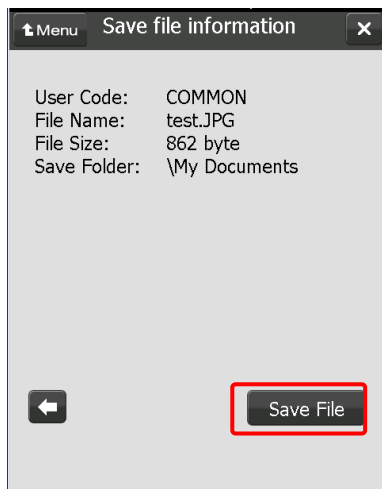
- (2) Select a folder in the **Save As** dialog box that is displayed, and then click the **Save** button.

Clicking the **Save** button displays the confirmation screen.

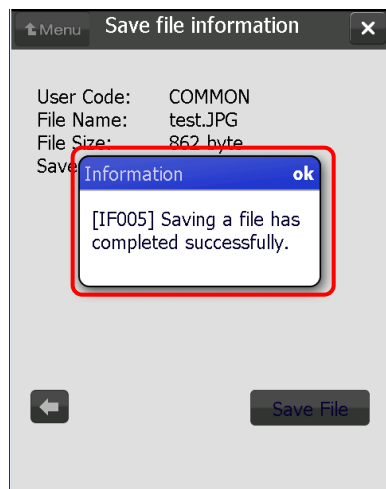
Clicking the **Cancel** button returns to the previous screen.



- (3) Check the file information in the confirmation screen that is displayed, and then click the **Save File** button.



- (4) A message will be displayed if the file is saved successfully.  
Clicking on the message returns the display to the file list screen.

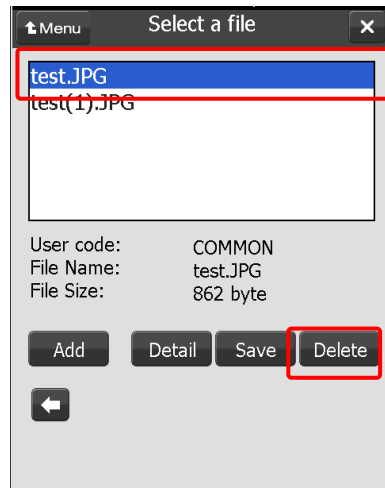


### 3.7.3.5 Deleting Files

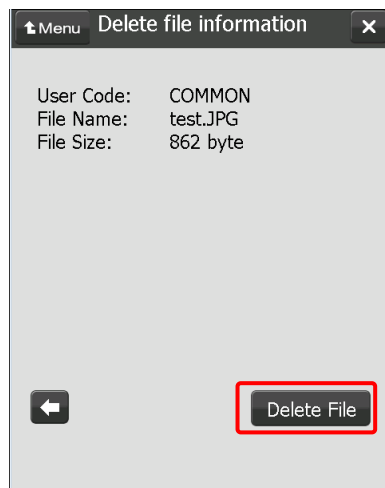
This section explains how to delete the selected file from the tag.

#### ■Operating procedure

- (1) Select a file and then click the **Delete** button.



- (2) Check the file information in the confirmation screen that is displayed, and then click the **Delete File** button.



- (3) If the file is successfully deleted, the following message will be displayed.  
Clicking on the message returns the display to the file list screen.

