

Microtube Manager ver.3.0 Manual

< Rev. 1.0 >

Issue date : March 22, 2011

Maxell Seiki, Ltd.

Contents

1. APPLICATION SOFTWARE SUMMARY	2
2. OPERATING ENVIRONMENT	2
3. FUNCTION	2
4. MAIN UNIT AND SUPPLIED ITEMS	2
5. RW	3
6. INSTALLATION	4
6.1 INSTALLATION OF APPLICATION SOFTWARE.....	4
6.2 INSTALLATION OF DEVICE DRIVER SOFTWARE	5
7. HOW TO USE APPLICATION SOFTWARE	9
7.1 SCREEN.....	9
7.2 SETUP DATA TITLE (SET UP)	10
7.3 SETUP TUBE ID AND INITIALIZE DATA (INITIALIZE).....	11
7.4 READ DATA (READ)	14
7.5 WRITE DATA (WRITE).....	16
7.6 SEARCH MICROTUBES (SEARCH).....	18
7.7 EXPORT DATA (EXPORT).....	19
7.8 IMPORT DATA (IMPORT).....	20
7.9 EXIT AN APPLICATION SOFTWARE (EXIT).....	21
8. UNINSTALL AN APPLICATION SOFTWARE	21

1. Application Software Summary

“Microtube Manager ver.3.0” is an application software for the Intelligent Microtube Management System that it is possible to manage data on max. 48 made-by-Maxell_Seiki Intelligent Microtubes (extra-cost option, hereafter microtube) in a rack through a Personal Computer (hereafter PC).

2. Operating Environment

<Hardware>

PC with ports more than USB1.1

CPU: PC with 1.6 gigahertz (GHz) or higher processor clock speed recommended;
Intel Pentium/Celeron family or AMD K6/Athron/Duron family

RAM: 1.0 gigabytes (GB) or higher recommended

HDD: 4.0 gigabytes (GB) or higher of available space

<OS>

Windows XP SP3 / Vista / 7 (32bit version)

3. Function

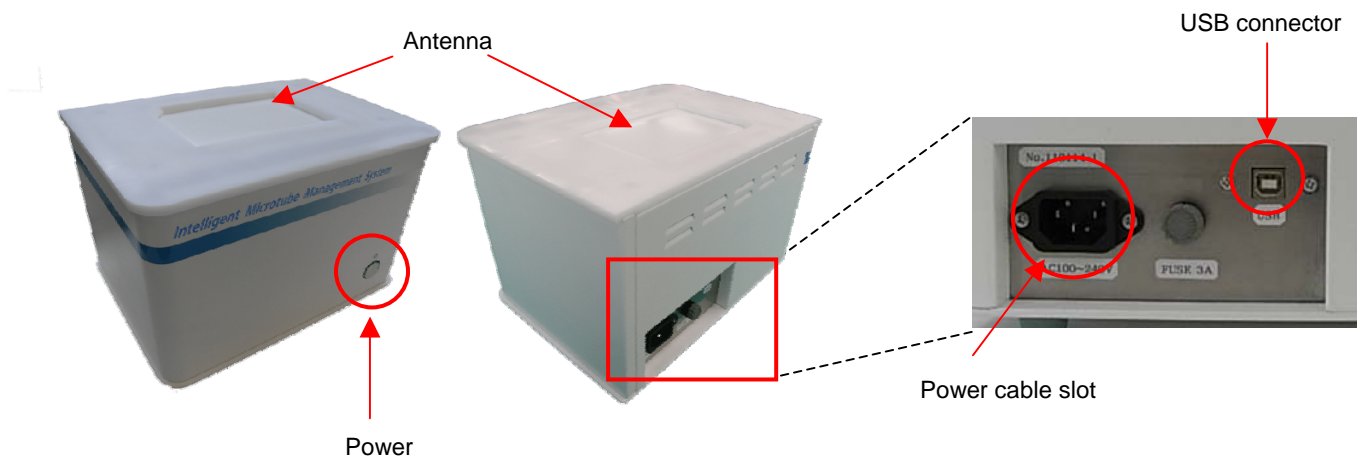
- Reads/Writes data on microtubes
- Setups TUBE ID
- Exports data on microtubes to a CSV file
- Imports a CSV file data to microtubes
- Searches microtubes in a rack by a keyword
- Customizes data titles

4. Main unit and supplied items

- | | |
|---|---------|
| ● Reader/Writer unit for Intelligent Microtube (hereafter RW) | 1 piece |
| ● Power cable | 1 piece |
| ● USB cable | 1 piece |
| ● Installation CD-ROM | 1 piece |
| - Application software | |
| - Device driver software | |
| - Manual (this document) | |



5. RW



6. Installation

When installing “Microtube Manager ver.3.0” and device drivers of RW, follow these steps.

- * Please login as Administrator.
- * Images are Windows 7.

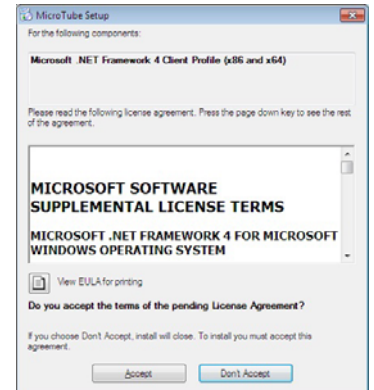


Install an application software before connecting RW to PC.

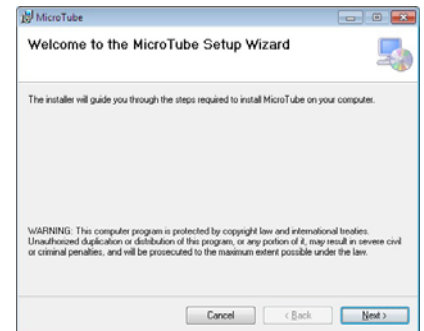
6.1 Installation of application software

1. Set an installation CD-ROM on PC.
2. Double-click “setup.exe”.
3. When “Microsoft .NET Framework 4 Client Profile” is not installed on your PC, installer installs “Microsoft .NET Framework 4 Client Profile”. Read the terms of the pending License Agreement and then click [Accept].

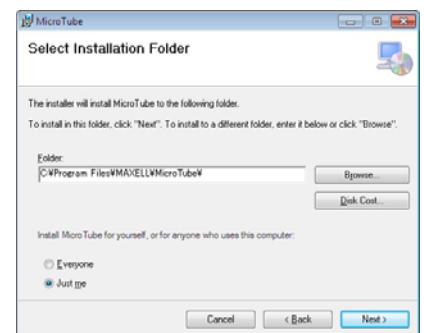
* When “Microsoft .NET Framework 4 Client Profile” is installed on your PC, go to step 5.



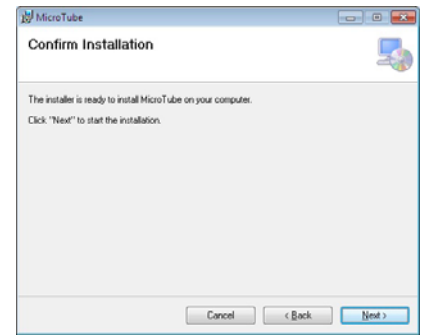
4. Click [YES] because “User Account Control” is displayed.
 - * Except Windows XP.
 - * Windows may require a restart of the PC. In that case, restart and then double-click “setup.exe” again.
5. Click [Next] because “MicroTube Setup Wizard” is displayed.



6. When installing to a different folder, enter it or click [Browse]. Select whether install this application software for yourself or for anyone who uses the PC, and then click [Next].



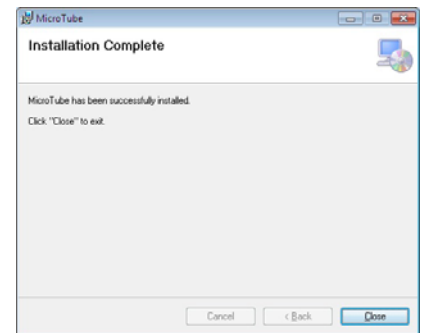
7. Click [Next].



8. Click [YES] because “User Account Control” is displayed.


* Except Windows XP.

9. Click [Close]. Confirm that “Microtube Management.exe” icon is displayed on desktop.



6.2 Installation of device driver software

Firstly, Plug a power cable and a USB cable into RW. Next, plug a power cable into an outlet and then plug a USB cable into PC after turning front-mounted power button on.

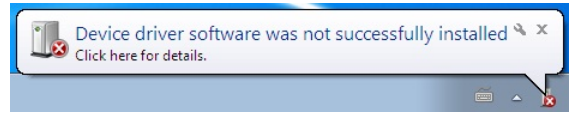
 **Install an application software before connecting RW to PC.
Don't launch an application software.**



Power on: Green light

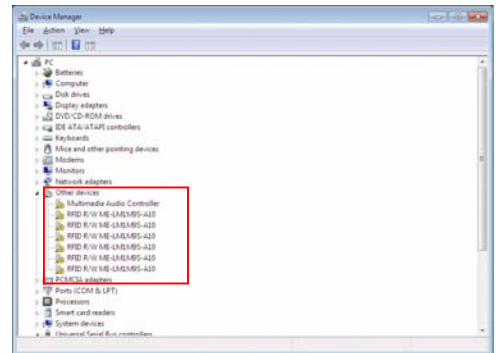
< Windows Vista / 7 >

1. When RW is connected with PC with USB cable for the first time, the driver software is automatically installed. Perform the following steps after the message “Device driver software was not successfully installed” in the right image is displayed.

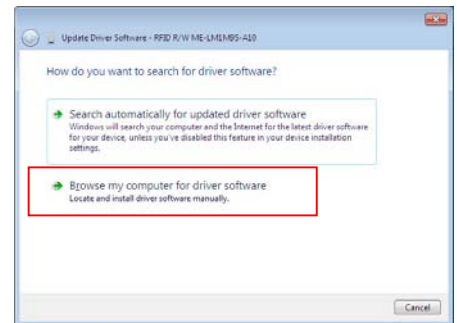


 **PC cannot install the driver software automatically because RW controls 6 parts by USB hub.**

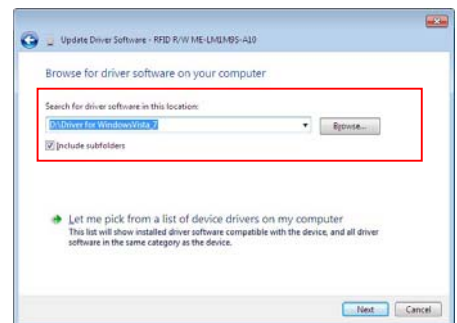
2. Click in the following order:
<Control Panel> -> <Hardware and Sound> -> <Device Manager>
3. RW is recognized as “Other devices”.
Name: “RFID R/W ME-LM1M9S-A10” with “!” mark
Quantity: 6 pcs



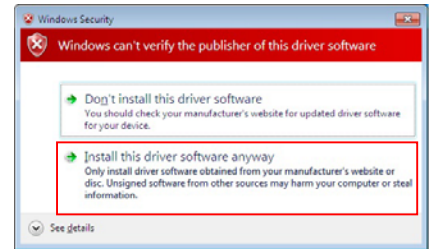
4. Right-click on “RFID R/W ME-LM1M9S-A10” and then select “Update Driver Software”.
5. Click “Browse my computer for driver software”.



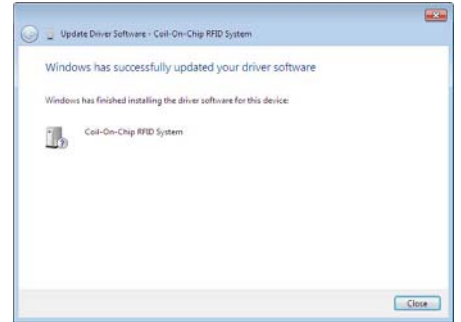
6. Supply “Driver for WindowsVista_7” in the Installation CD-ROM and then click [Next].



7. "Windows Security" is displayed, but click "Install this driver software anyway".



8. Click [Close].



9. Repeat installation of driver software 6 times.

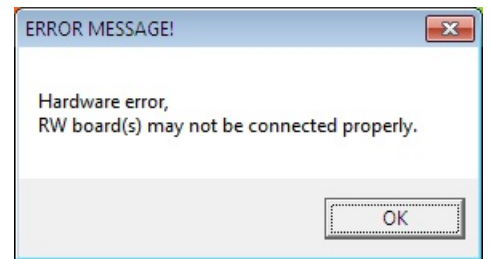
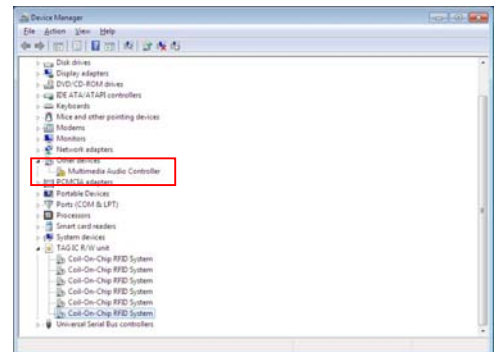


1) When completing installation of driver software, "TAG IC R/W unit" is displayed on Device Manager.

2) When opening "TAG IC R/W unit", 6 "Coil-on-Chip RFID System" are displayed. "?" mark is displayed, but RW works normally.

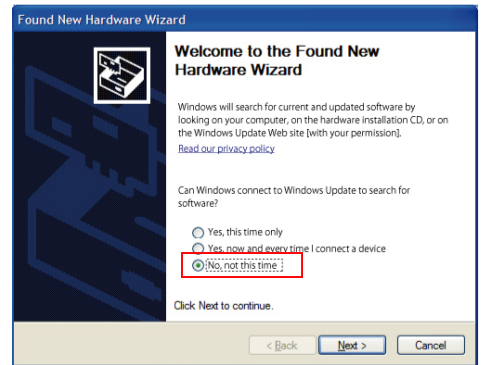
* Part of Windows Vista PC and Windows 7 PC may not work normally.

3) When launching application software in a state of not completing installation of driver software correctly, error message is displayed. Make sure the driver software is correctly installed in 6 RW.

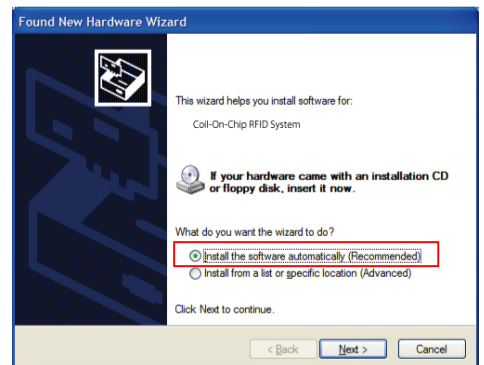


< Windows XP >

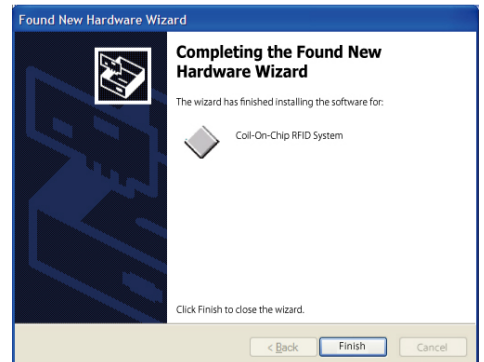
1. When RW is connected with PC with USB cable for the first time, "Found New Hardware Wizard" is displayed. Select "No, not this time" and then click [Next].



2. Select "Install the software automatically (Recommended)" and then click [Next].



3. Click [Finish].



4. Repeat above steps 6 times.



1) "Found New Hardware Wizard" is displayed 6 times. Repeat above steps 6 times.

- 2) When launching application software in a state of not completing installation of driver software correctly, error message is displayed. Make sure the driver software is correctly installed in 6 RW.



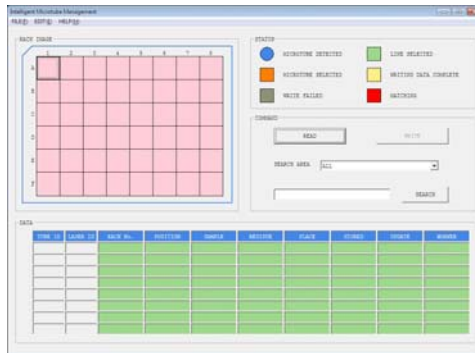
7. How to use application software

Double-click Microtube Manager icon on desktop.

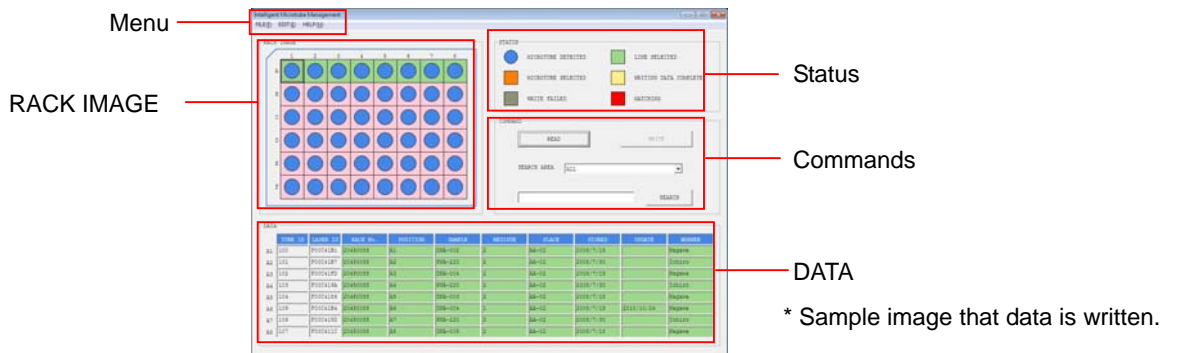
- ⚠ Set optional microtubes in a rack for microtube before operating and then set a rack on RW antenna.



7.1 Screen



Startup



After reading data



<Front>



<RACK IMAGE zoom>

TUBE ID	LASER ID	RACK NO.	POSITION	SAMPLE	RESIDUE	PLACE	STORED	UPDATE	WORKER

Unwritable area

Writable area

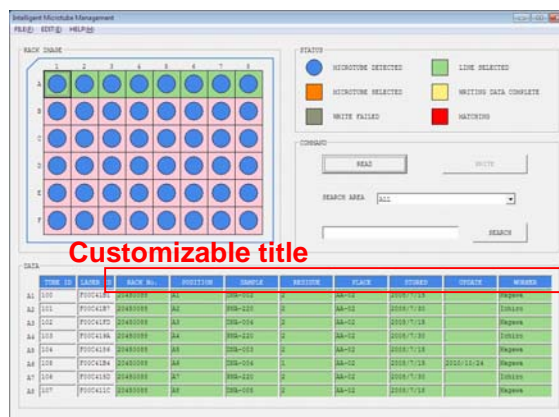
< DATA zoom >

7.2 Setup data title (SET UP)

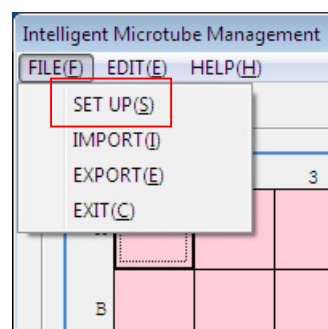
Able to setup titles of writable area.

Default is as follows:

- Uncustomizable title : TUBE ID / LASER ID
- Customizable title : RACK No. / POSITION
SAMPLE / RESIDUE
PLACE / STORED
UPDATE / WORKER



1. Click FILE(F) from the menu and then select SET UP(S).

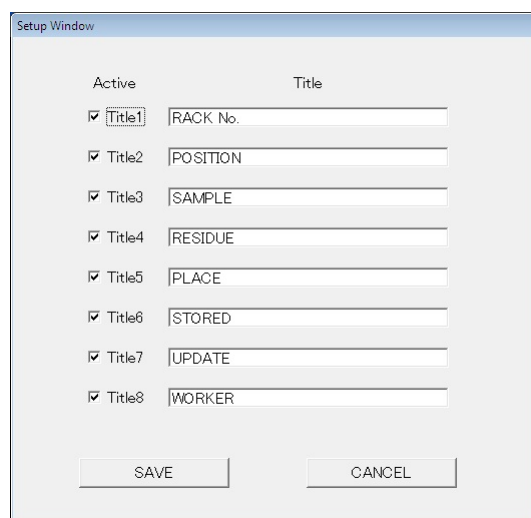


2. Change titles because "Setup Window" is displayed. The number of available characters is up to 10 characters in the single-width and the sign. When cutting the number of active titles, click the left-box to remove the check mark.

* Kinds of sign: -, ., ,, /, :, *, (and)



Even if the displayed titles are cut, the number of characters that can be input to the title column does not increase. (Max. 10 characters)



7.3 Setup TUBE ID and Initialize data (INITIALIZE)

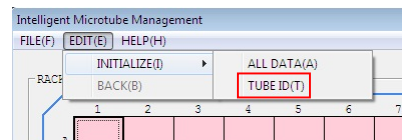
Use this function when managing serial numbers by yourself.

Able to select operation from the following 2 patterns.

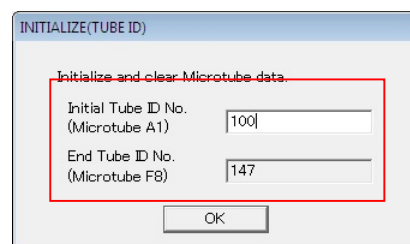
- ALL DATA(A) : TUBE ID setting + Data initialization
- TUBE ID(T) : TUBE ID setting

< TUBE ID(T) >

1. Click EDIT(E) from the menu and then select TUBE ID(T) from INITIALIZE(I).



2. Input the first serial number on "Initial Tube ID No.(Microtube A1)" and then click [OK]. Serial number of "End Tube ID No.(Microtube F8)" that adds 47 to the first serial number is set automatically.



EX) Microtube A1: 100 -> Microtube F8: 147

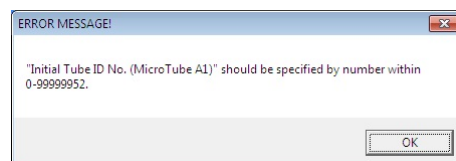
- 1) TUBE ID is serial numbers. Order is as follows:

A1, A2, ->, A8, B1, B2, -> F7, F8

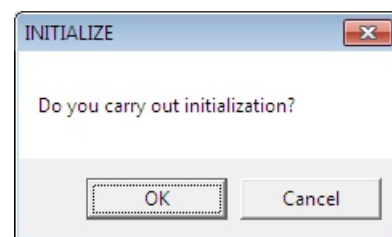
- 2) Input a serial number by the decimal number.

- 3) **Writable serial number range on Microtube A1:**
0 - 99999952

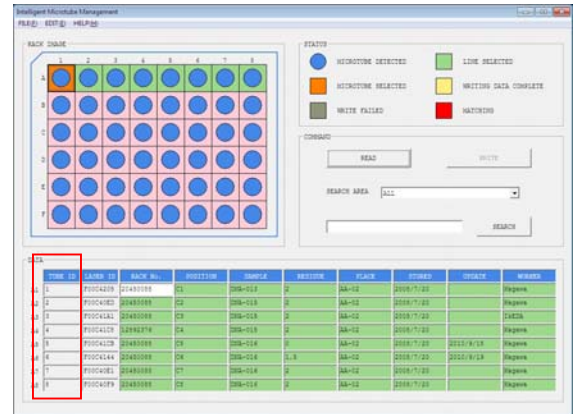
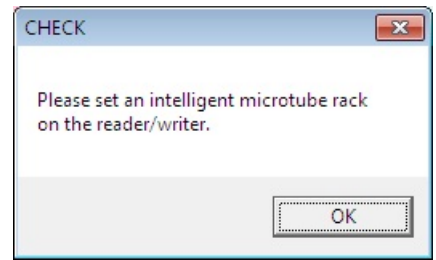
When an out-of-serial number is input, the error message is displayed.



3. Click [OK].

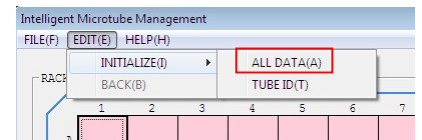


- Confirm that a rack is set on the antenna of RW. When clicking [OK], RW writes TUBE ID. Able to confirm data because RW reads data automatically after completing INITIALIZE.

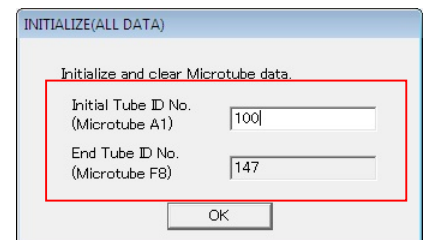


< ALL DATA(A) >

- Click EDIT(E) from the menu and then select ALL DATA(A) from INITIALIZE(I).



- Input the first serial number on “Initial Tube ID No.(Microtube A1)” and then click [OK]. Serial number of “End Tube ID No.(Microtube F8)” that adds 47 to the first serial number is set automatically.



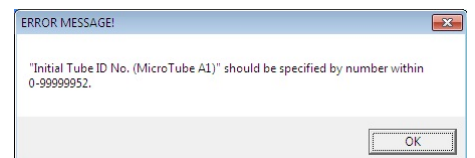
EX) Microtube A1: 100 -> Microtube F8: 147

- 1) TUBE ID is serial numbers. Order is as follows:
A1, A2, ->, A8, B1, B2, -> F7, F8

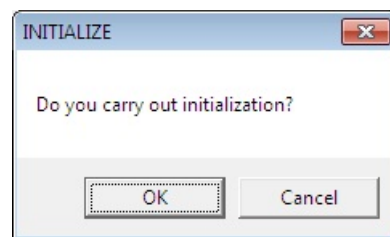
- 2) Input a serial number by the decimal number.

- 3) **Writable serial number range on Microtube A1:**
0 - 99999952

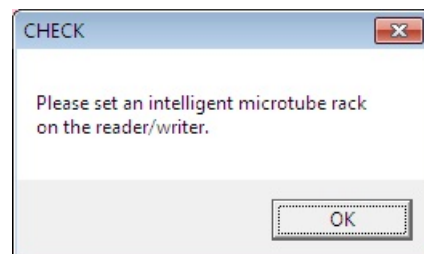
When an out-of-serial number is input, the error message is displayed.




3. Click [OK].



4. Confirm that a rack is set on the antenna of RW. When clicking [OK], RW writes TUBE ID and initializes data. Able to confirm data because RW reads data automatically after completing INITIALIZE.

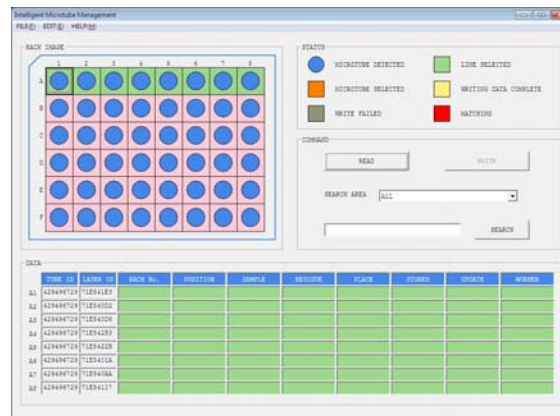


 Only TUBE ID and LASER ID are displayed on "DATA".



7.4 Read data (READ)


When reading Intelligent Microtube data for the first time, the following window is displayed.

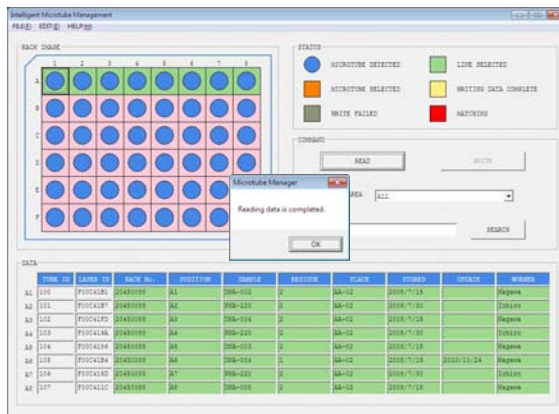


* Only TUBE ID and LASER ID are displayed.

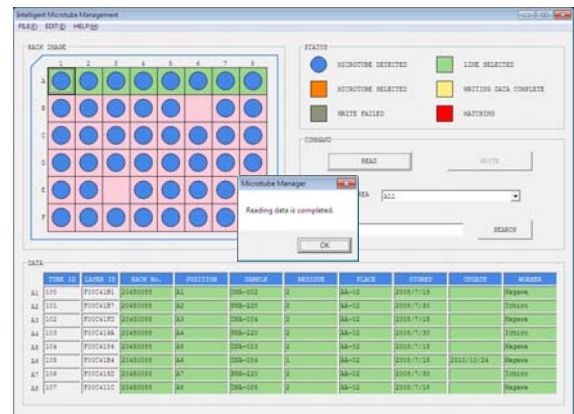
1. Reads data by clicking [READ].

* As for the following images, data is written on Intelligent Microtube.

 When failing in reading Intelligent Microtube data, MICROTUBE DETECTED mark “●” is not displayed on failed Intelligent Microtube. Please confirm that Intelligent Microtubes are set in a rack exactly and click [READ] again.

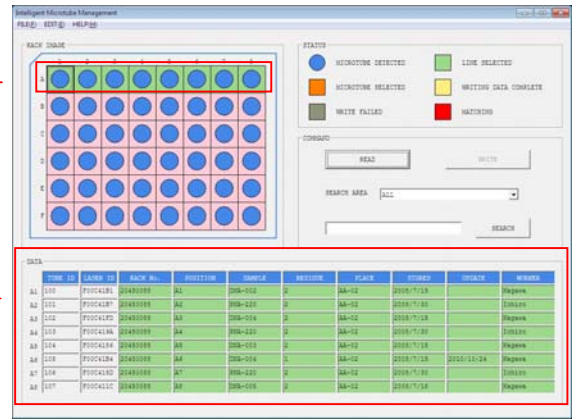


Success

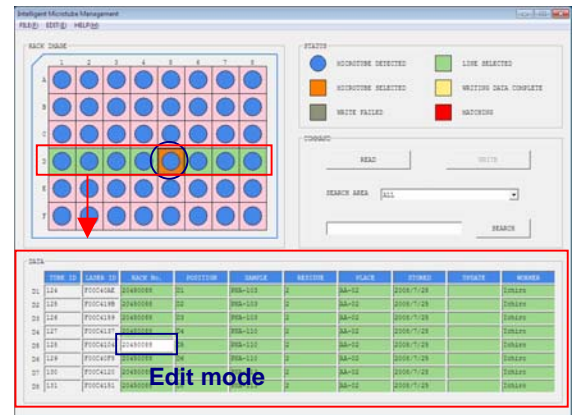


Failure

- After reading data, the result is displayed on “RACK IMAGE”. Data of 8 Intelligent Microtubes on A line is displayed on “DATA”.
* Selected line is displayed in light green.



- When clicking an any mark “●” in “RACK IMAGE”, the background color is displayed in orange and data of 8 Intelligent Microtubes in same line is displayed in “DATA”. At the same time, a selected data changes to the Edit mode.



Default of “DATA” title:

TUBE ID / LASER ID / RACK No. / POSITION / SAMPLE / RESIDUE / PLACE / STORED / UPDATE / WORKER

7.5 Write data (WRITE)

1. When selecting the Intelligent Microtube on "RACK IMAGE" that you would like to write data on with the mouse, an applicable line is displayed on "DATA".

2. When clicking a cell on "DATA" that you would like to edit data, the background color of cell is displayed in white, and changes to DATA EDIT MODE. The available characters is **up to 13 characters in the single-width and the sign.**

* Kinds of sign: -, ., ,, /, :, *, (and).

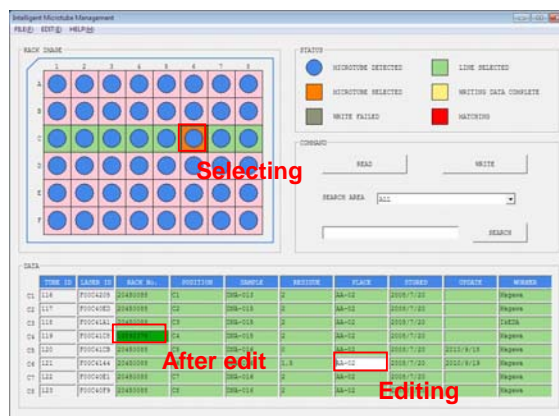
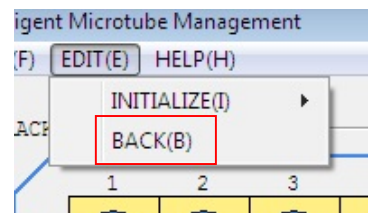


Image of edit

3. Finishes the edit of data by typing the Enter key, and the background color of cell is displayed in green. When resetting the change of data, select BACK(B) from EDIT(E). Able to return to previous data by one by clicking BACK(B).



- 1) When editing some items of data, repeat step 2 and 3.
- 2) Able to control step of cell with the mouse and the keyboard.

Control with keyboard is as follows:

Up-and-down: Up-and –down arrow

Right: TAB or ENTER

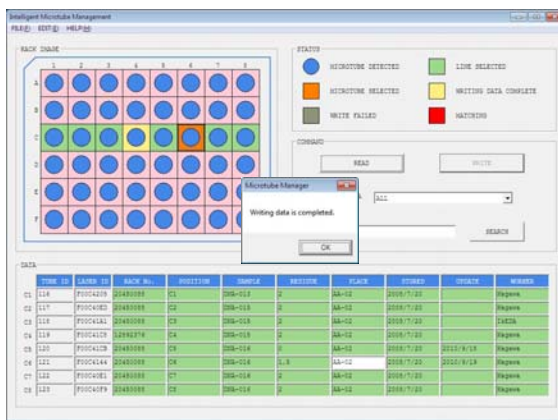
Left: SHIFT and TAB

- 3) To complete WRITE, perform next step.

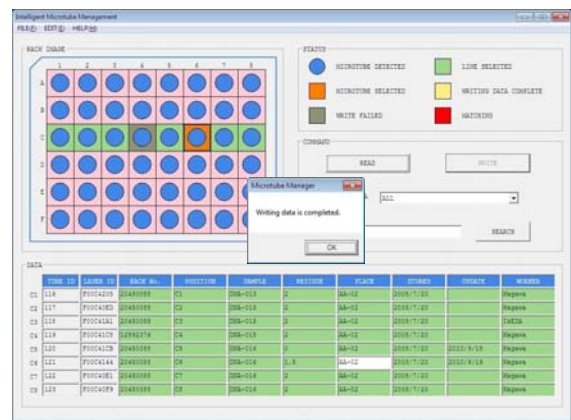
4. When clicking [WRITE], RW writes data on the Intelligent Microtubes. When completing WRITE correctly, the background color on “RACK IMAGE” of Intelligent Microtube that data has been written is displayed in yellow. When failing in writing data, the background color of Intelligent Microtube is displayed in gray. In that case, check whether a rack is correctly set on the antenna of RW or the Intelligent Microtube is correctly put into a rack and then click [WRITE] again.



- 1) When confirming written data, click [READ] again.
- 2) Data is written in each line.
- 3) Able to setup titles of “DATA” with SET UP(S). Regarding the details of SET UP(S), please refer to “7.2 Setup data title (SET UP)”.
- 4) Unable to change LASER ID.



Success




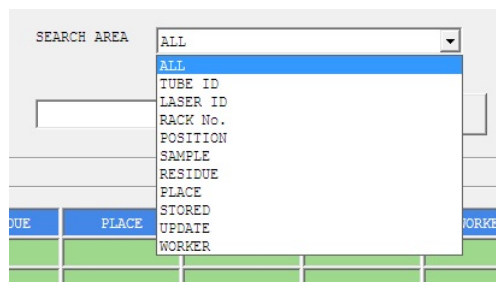
Failure

7.6 Search microtubes (SEARCH)

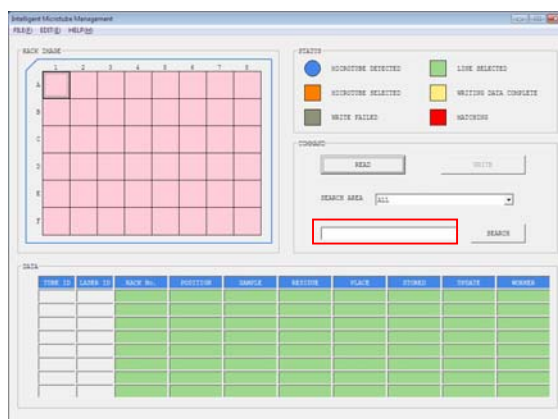
Able to search the positions of microtube in a rack by selecting a title from «SEARCH AREA».

1. Select a title from «SEARCH AREA».

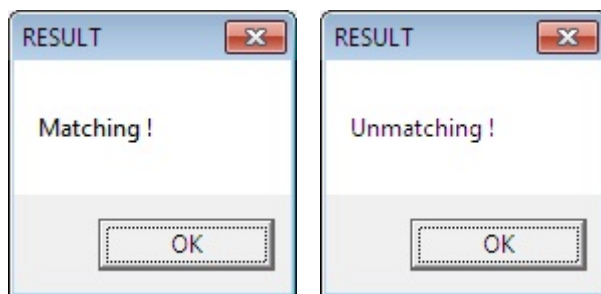
 Edited titles are displayed. “ALL” searches a keyword from all titles.



2. Input a keyword into a search box.
EX) When inputting “DNA” as a keyword, both of DNA-1 and DNA-2 match “DNA” as the result.



3. When clicking [SEARCH], application software searches a keyword and displays the result.



Match

Unmatch

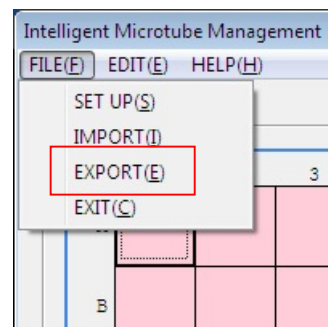
4. When data matches, the background color of microtube in “RACK IMAGE” is displayed in red.



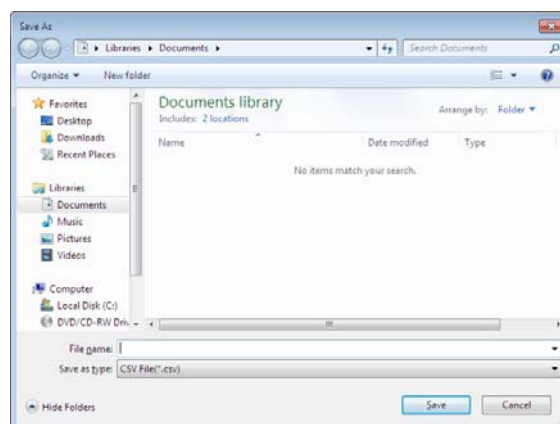
7.7 Export data (EXPORT)

Exports all microtube data in a rack as a CSV file.

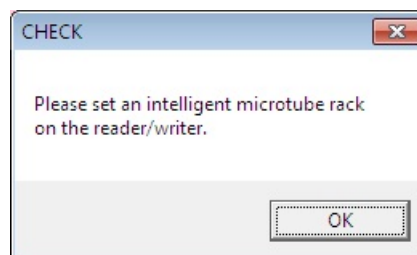
1. Click FILE(F) from the menu and then select EXPORT(E).




2. Supply a destination folder, input a file name and then click [Save].



3. Confirm that a rack is set on the antenna of RW. When clicking [OK], RW reads data and exports the data.



 Able to open the data with software such as Microsoft Excel or Notepad.

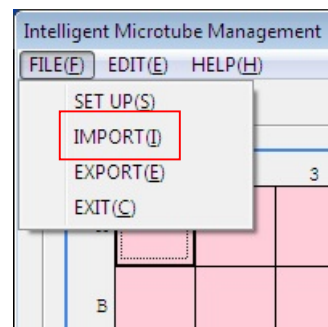
EX) CSV file image when opening data with Excel.

POSITION	TUBED	LASERID	RACK No.	POSITION	SAMPLE	RESIDUE	PLACE	STORED	UPDATE	WORKER
A1	100	FOOC41B1	20450088	A1	DNA-002	2	AA-02	2008/7/10		Kagawa
A2	101	FOOC41E7	20450088	A2	PNA-220	2	AA-02	2008/7/30		Ichiro
A3	102	FOOC41FD	20450088	A3	DNA-004	2	AA-02	2008/7/15		Kawasaki
A4	103	FOOC419A	20450088	A4	PNA-220	2	AA-02	2008/7/30		Matsuzaki
A5	104	FOOC4196	20450088	A5	DNA-001	2	AA-02	2008/7/15		Kagawa
A6	105	FOOC4194	20450088	A6	DNA-004	1	AA-02	2008/7/15	2010/10/20	Kagawa
A7	106	FOOC415D	20450088	A7	PNA-220	1	AA-02	2008/7/30	2011/2/10	Ichiro
A8	107	FOOC411C	20450088	A8	DNA-005	2	AA-02	2008/7/15		Kagawa
B1	108	FOOC416F	20450088	B1	PNA-122	2	AA-02	2008/7/27		Ichiro
B2	109	FOOC4173	20450088	B2	DNA-002	1	AA-02	2008/7/15	2010/12/8	Kagawa
B3	110	FOOC41FF	20450088	B3	DNA-005	2	AA-02	2008/7/18		Kagawa
B4	111	FOOC4119	20450088	B4	DNA-002	2	AA-02	2008/7/15		Kagawa
B5	112	FOOC418F	20450088	B5	DNA-006	2	AA-02	2008/7/18		Kagawa
B6	113	FOOC41E4	20450088	B6	DNA-006	2	AA-02	2008/7/18		Kagawa
B7	114	FOOC41AF	20450088	B7	DNA-006	2	AA-02	2008/7/18		Kagawa
B8	115	FOOC4253	20450088	B8	DNA-013	1.5	AA-02	2008/7/20	2010/9/10	Kagawa
C1	116	FOOC4205	20450088	C1	DNA-013	2	AA-02	2008/7/20		Kagawa
C2	117	FOOC40ED	20450088	C2	DNA-015	2	AA-02	2008/7/20		Kagawa
C3	118	FOOC41A1	20450088	C3	DNA-015	2	AA-02	2008/7/20		IKEDA
C4	119	FOOC41CB	12892376	C4	DNA-015	2	AA-02	2008/7/20		Kagawa
C5	120	FOOC410B	20450088	C5	DNA-016	0	AA-02	2008/7/20	2010/9/18	Kagawa
C6	121	FOOC4144	20450088	C6	DNA-016	1.5	AA-02	2008/7/20	2010/9/18	Kagawa

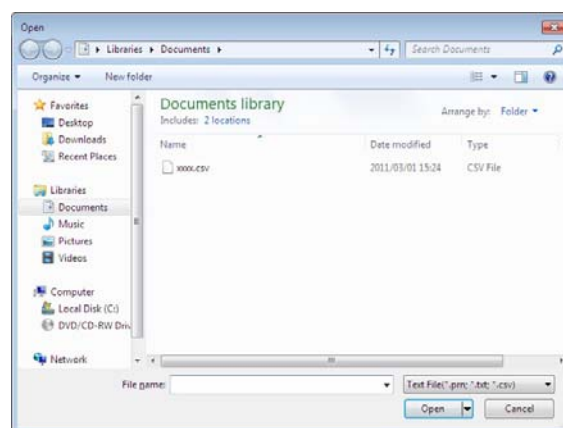
7.8 Import data (IMPORT)

Able to write data of a prepared CSV file in one pass.

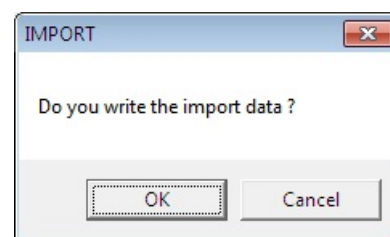
1. Click FILE(F) from the menu and then select IMPORT(I).



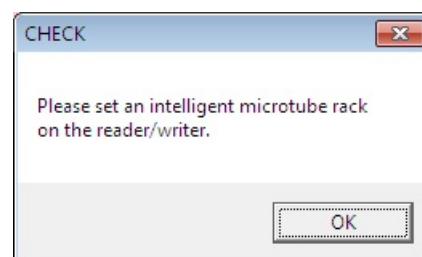
2. Supply a data file and then click [Open].




3. Click [OK].




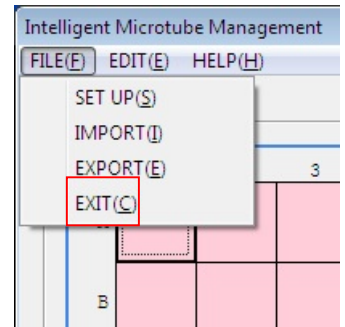
4. Confirm that a rack is set on the antenna of RW. When clicking [OK], RW imports data.



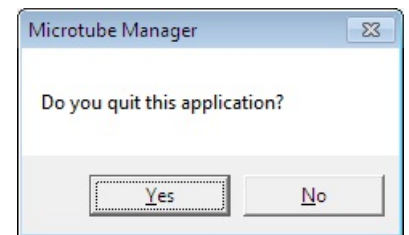
- 1)  Imputable data must follow same data format as exported CSV file .
- 2) We recommend using a file that is saved in “7.7 Export data (EXPORT)” as a CSV data format.
- 3) Don’t delete the title written in the first line in CSV data format. Moreover, even if titles are changed, these are not updated with imported data. Regarding the change of title, please refer to “7.2 Setup data title (SET UP)”.

7.9 Exit an application software (EXIT)

1. Click FILE(F) from the menu and then select EXIT(C) or then click  button on screen.



2. Click [Yes].



8. Uninstall an application software

< Windows Vista / 7 >

1. Click in the following order.
<Control Panel> -> <Uninstall a program>
2. Select "MicroTube" from the list, right-click on it and then click [Uninstall].

< Windows XP >

1. Double-click "Add or Remove Programs" in "Control Panel".
2. Select "MicroTube" from the list and then click [Remove].

~~* Windows, Excel and Notepad are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.~~

For inquiries about Microtube Manager ver3.0, please contact authorized distributor for assistance.