Splicer Data Explorer

User manual

FURUKAWA ELECTRIC CO., LTD.

Contents

1. **Introduction**

Splicer Data Explorer is a support application of the fusion splicer. It remote control from PC, splice data management, and online update.

1.1. The fusion splicer Requirements

This application supports S178 series, S153 series and S123 series.
It is necessary for the fusion splicer to install a compliant program when use this application.
Check the fusion splicer software version.
If the software version is older th"Figure.1-2", update the fusion splicer by referring "6.1.2."

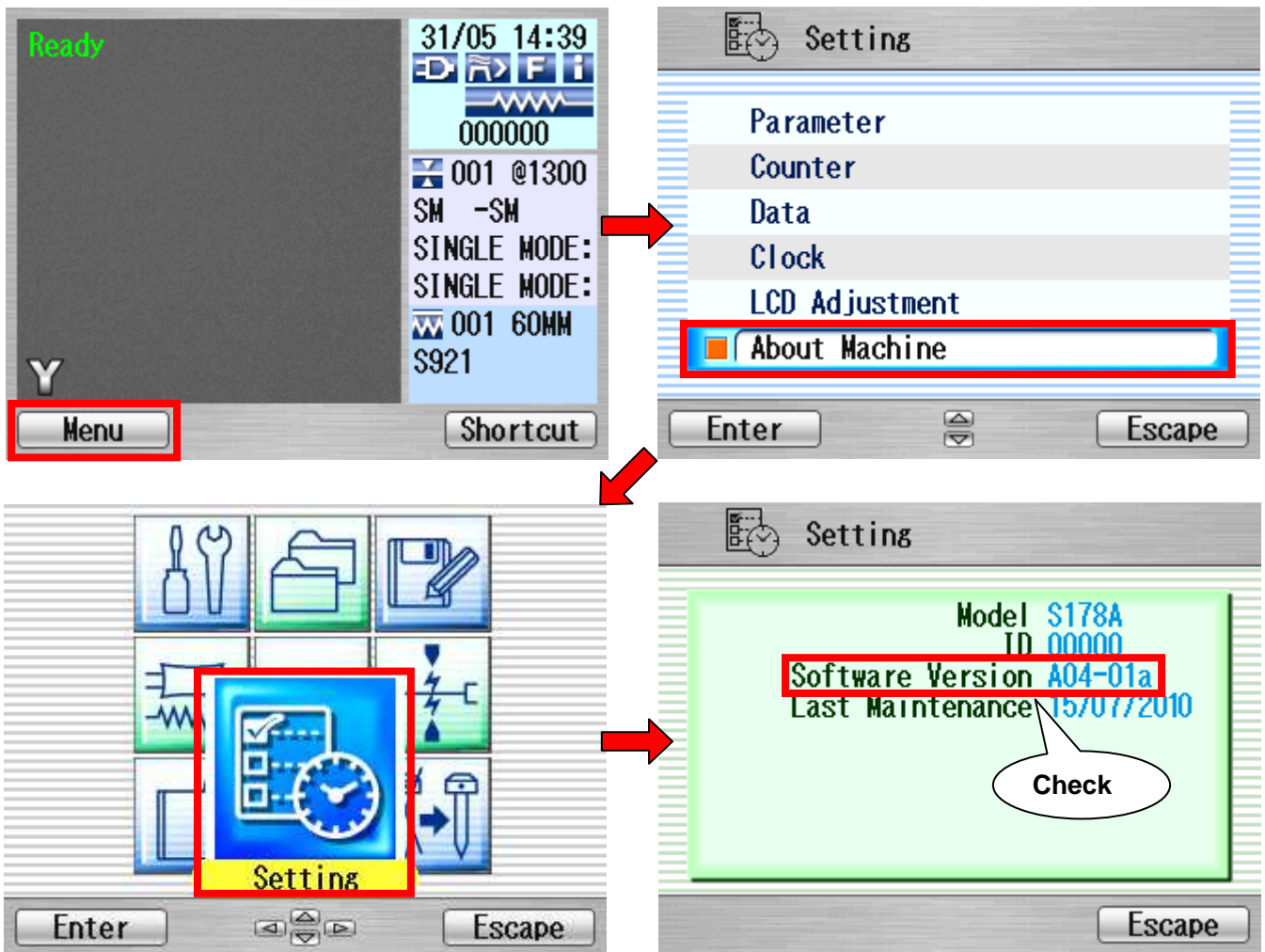Figue.1-1: Check the software version

Figue.1-2: Support software version

The fusion splicer	Software version
S178 A	A04 (or above)
S153 A	A04 (or above)
S123 C/M4	A05 (or above)
S123 M8/M12	A03 (or above)

1.2. PC Requirements

The following minimum configuration is required to run Splicer Data Explorer.

Figue.1-3: PC Requirements

| The fusion splicer	Software version
CPU	INTEL Pentium4® 2.0 GHz class system
MEMORY	256 MB (512 MB recommended)
HDD	50 MB
OS	Windows XP SP3 Windows Vista SP2 Windows 7 SP1 Windows 8
USB Port	USB 2.0
etc	Direct X: 9.0d .NET framework: 3.5 SP1 Microsoft Excel: 2000 (or above)

Refer to the following links for the latest update.

・Direct X End-user Runtime
  http://www.microsoft.com/downloads/en/details.aspx?FamilyID=2da43d38-db71-4c1b-bc6a-9b6652cd92a3

・.NET framework
  http://msdn.microsoft.com/en-us/netframework/cc378097.aspx

2. **Setting and Start**

This section describes how to install the Application and USB driver.
When you connect the fusion splicer to a PC for the first time, it is necessary to install the driver.
There are two kinds of USB modes, and it is necessary to perform installation for each.

2.1. Install USB Driver

1. Download the USB drivers to your PC.

2. Execute downloaded file, the driver files are extracted.

3. Execute "**dpinst.exe**" in "x86 Driver" folder when 32-bit OS, in "x64 Driver" folder when 64-bit OS.

4. Click "Next" button. The USB driver will be installed.
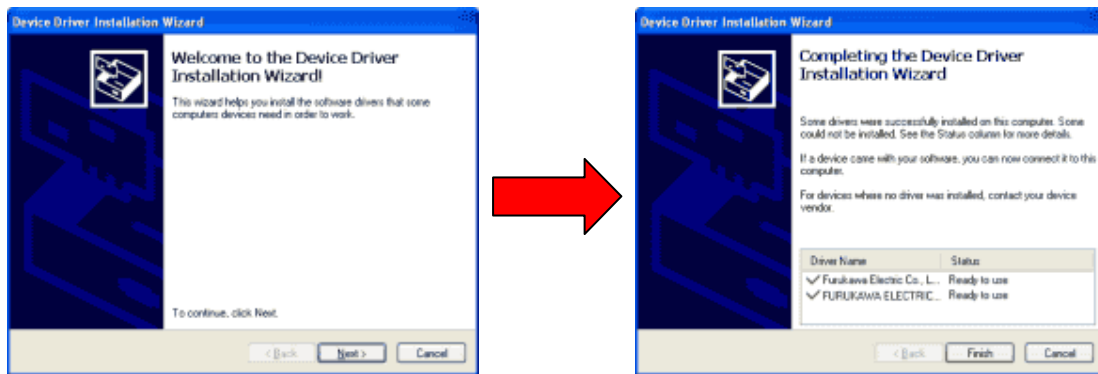
2.2. Application Install

Figue.2-2: Setup Wizard

1. Execute the installation file.
    Press **"Next"** Button, when installations start.
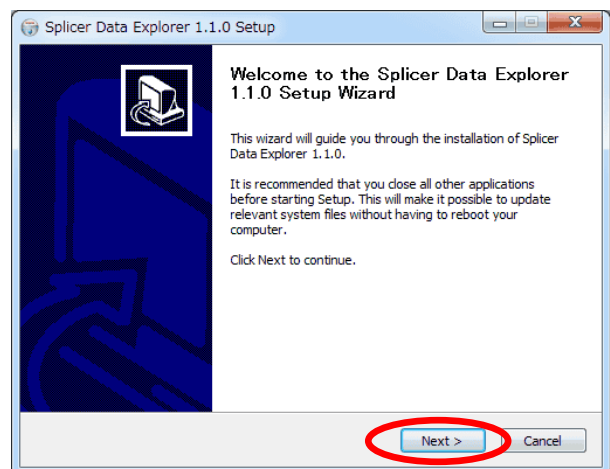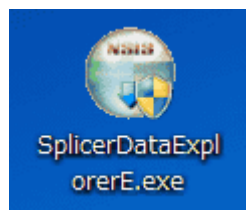
2. Press "**Next**" Button. If you change installation directory, Press "**Browse**" Button and select the directory.
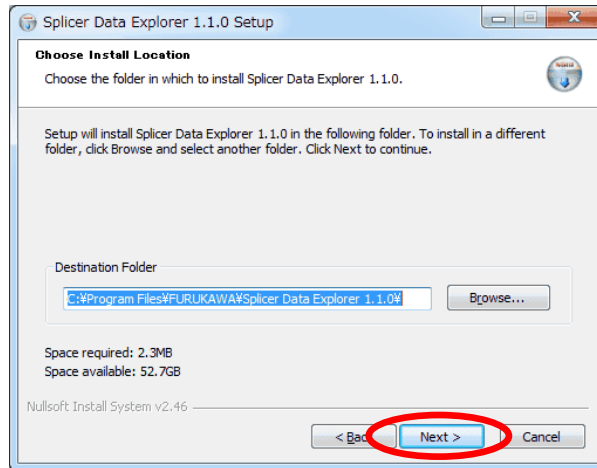
3. Press "**Install**" Button.If you change start menu name, rewrite name.
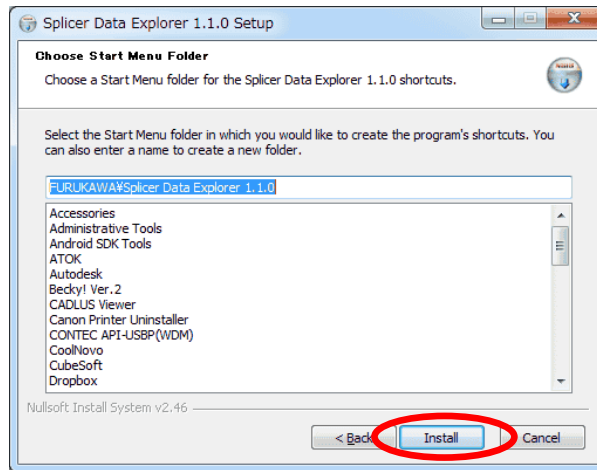
2.3. Running program

1. Connect the fusion splicer and a PC with a USB cable, after power supply of the fusion splicer is turned on.

2. To start the Application, click on the icon from desktop or running the "**SDE.exe**" from installed folder.
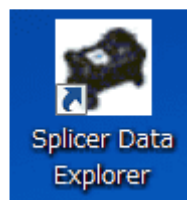
Figue.2-3: Shortcut application

It is necessary to install two USB drivers, when you first connect PC and the fusion splicer.

2.4. About USB mode

This application uses two USB modes, and each mode is automatically changed by a function.
Data-MODE is used when functions except Update are selected.
At the time, LCD screen of the fusion splicer is turned off.

Figue.2-4: About USB MODE

USB MODE	LCD display	Function
Normal-MODE	Light ON	・Update
Data-MODE	Light OFF	・Monitor ・Manual Capture Data ・Splice Information

Figue.2-5: Display of the each mode

a) Normal-MODE   b) Data-MODE
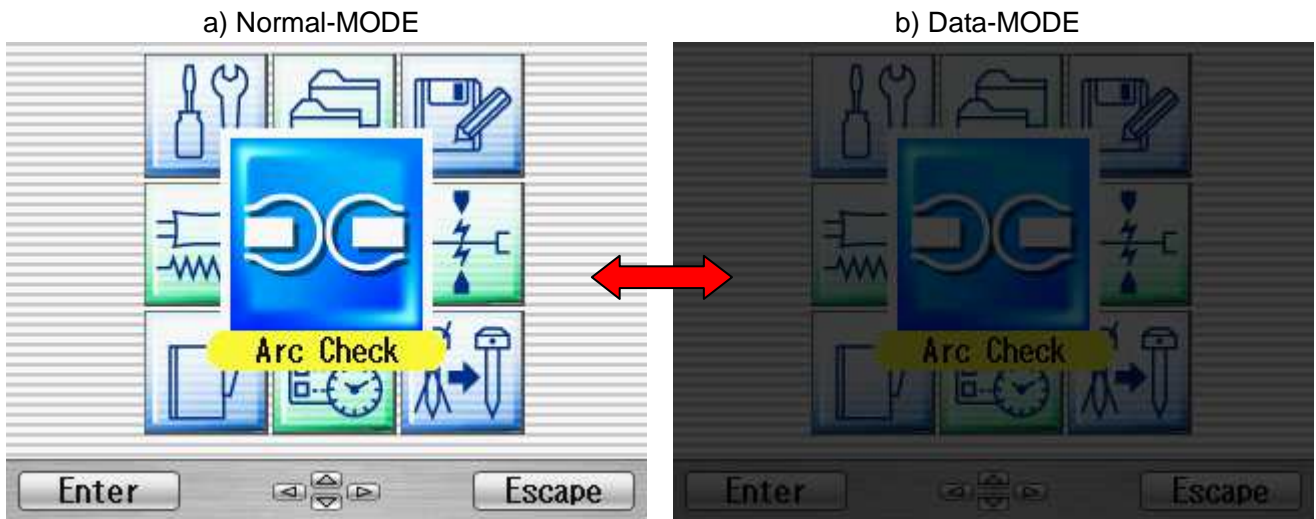
3. **Function -Monitor-**

This function performs remote control to the fusion splicer from PC.
It is necessary to be changed to Data-MODE.
The sub function is as follows.

① **Remote Display**
   Displayed screen from the fusion splicer. The screen is displayed in the whole of software.

② **Remote Panel**
   Control the fusion splicer from PC.

③ **Message Editor**
   The message is changed directly from PC.

④ **Image Capture**
   A favorite image is saved to PC.

Figue.3-1: Monitor

3.1.   Remote Display (Normal size)

1. Push **"Start"** button.

2. If USB mode is not Data-MODE,
   push **"OK"** after caution is displayed

3. A Screen of the fusion splicer is displayed.

4. If you want to stop the fusion splicer,
   push **"Stop"** bottom.

Figue.3-2: Remote Display
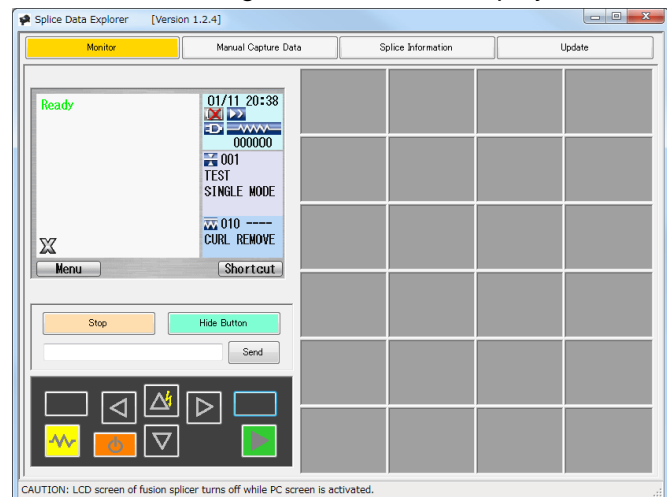
3.2.   Remote Display (Screen Size Change)

1. Push **"Maximize"** button or change window size. The screen of splicer changes in conjunction with the window size.

2. When **"Hide Button"** is pushed, the Remote Panel and the Message Editor are hidden.

Figue.3-3: Maximum size display
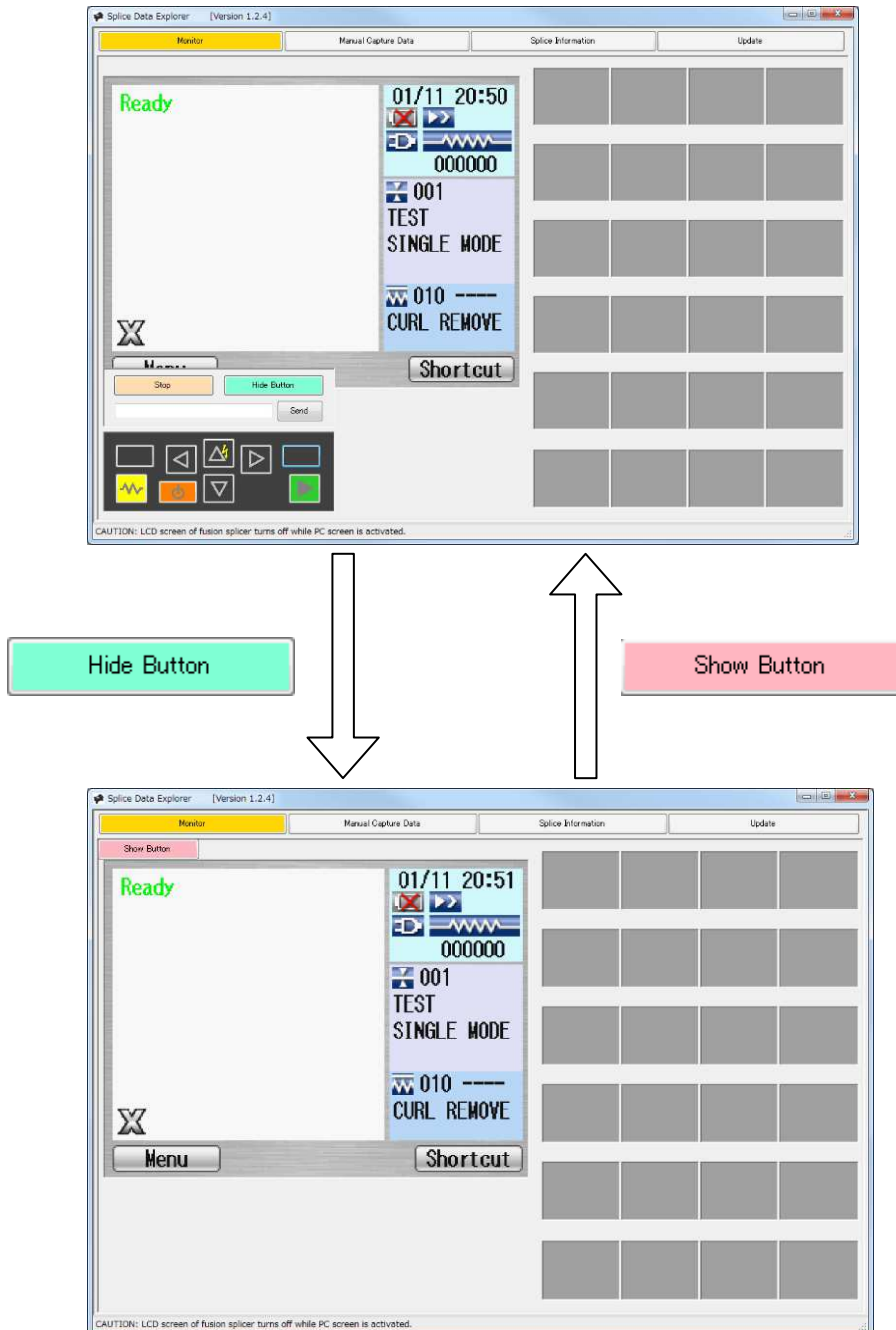
3.3. Remote Panel

1. It operates similarly as operating keys of the fusion splicer.

2. Refer to a manual of the fusion splicer about the function of keys.

Figue.3-4: Remote Display

| 💡 | **The power supply cannot be turned off from PC.** |

3.4. Message Editor

1. Move to the message input screen by operating the fusion splicer.
   (ex: "PREG Edit" → "Fusion" → "004:DS DS" → "Edit Comment")

2. Input a message into message box, after an edit target message was selected.
   Refer to a manual of the fusion splicer about the number of the input character.

3. Push **"Send"** button.

4. If editing is completed, you can edit the next message.

5. When you finish editing, push "**Escape**" button in the fusion splicer.
   And select "Over Write" or "Cancel".

Figue.3-5: Message Edit
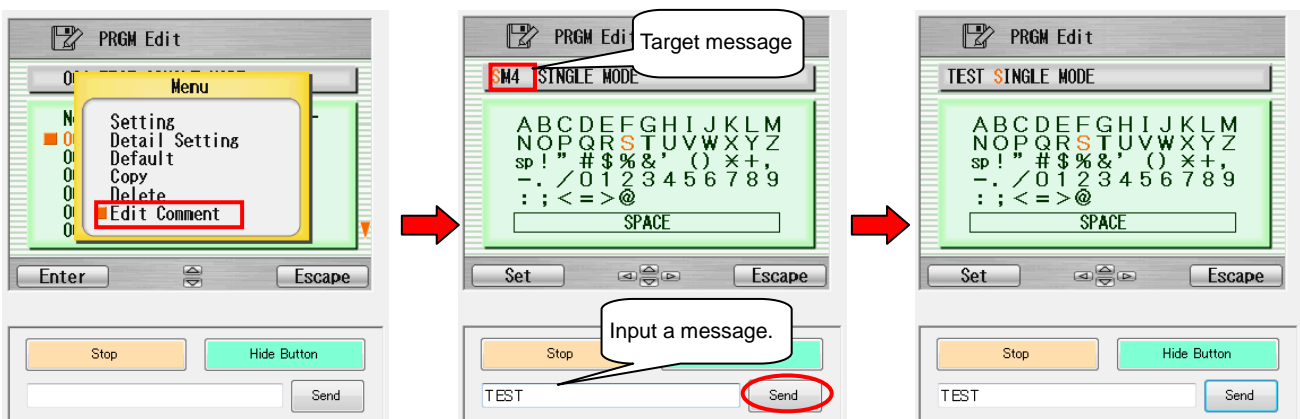
| 💡 | **It cannot send the character which does not support.**
Use the character displayed by a screen of the fusion splicer. |

3.5.   Image Capture

1. Active "Remote Display" in reference to "3.1.".

2. Display the screen which you want to store, and click "**Left-click**" button in the space of the right side.

3. The image stored temporarily is displayed.

4. When you choose the image and click "**Right-click**", a menu is displayed.

5. When you save PC the image, select **"Save As…"** from a menu.

Figue.3-5: Image Capture

Image stored here, you can drag and drop directly into Excel
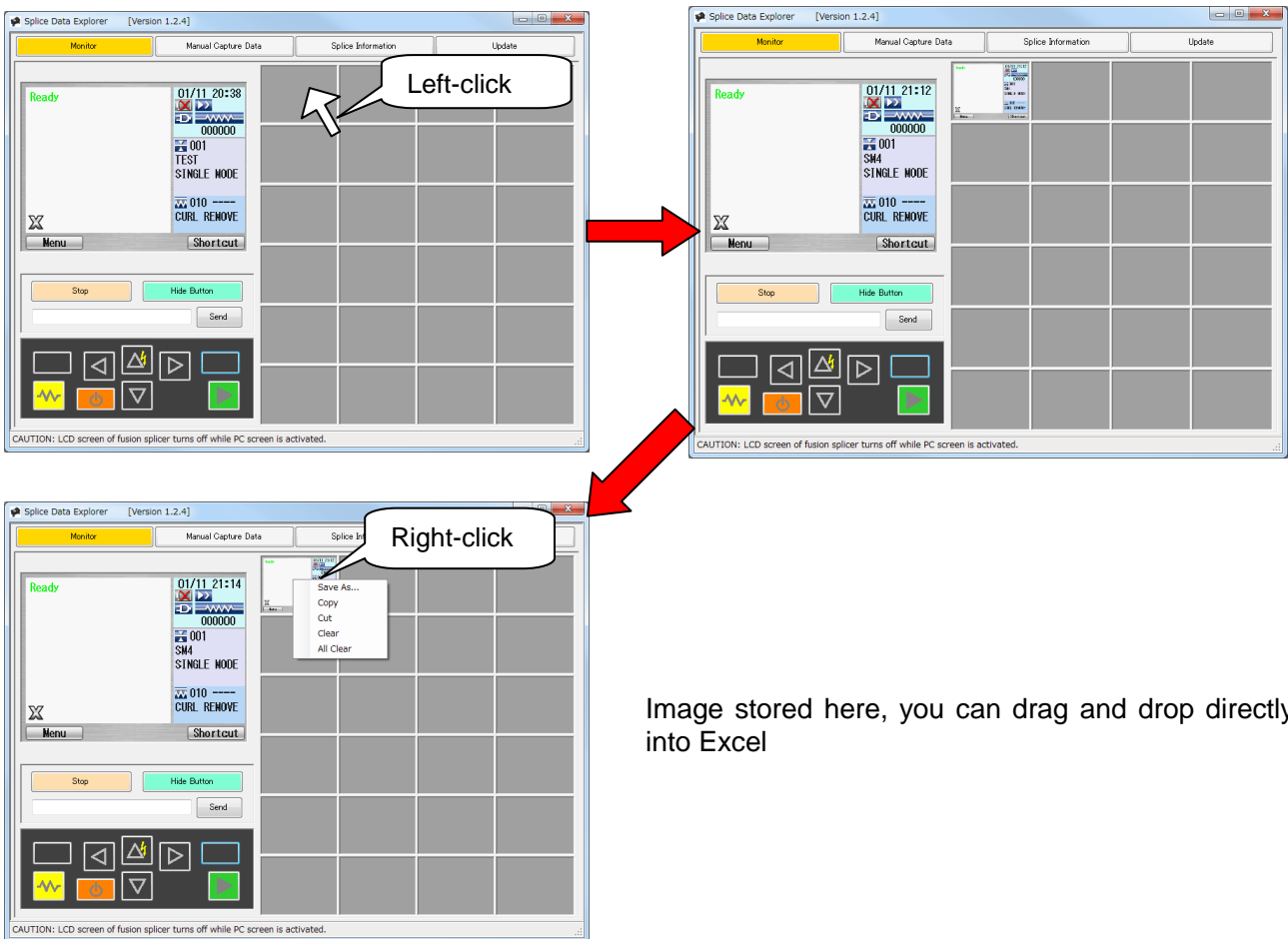
Figue.3-6: Right-click menu

Name	Functions
Save As…	It saves a select image to PC. (PNG format)
Copy	It copies a select image, and you can paste to the paint etc.
Cut	It cuts a select image, and you can paste to the paint etc. The selected image clears from space.
Clear	The selected image is cleared.
All Clear	All images are cleared.

4. **Function -Manual Capture Data-**

This function can refer to the Manual Capture Data stored in the fusion splicer.
It is displayed with "Image Data" in the fusion splicer.
Refer to a manual of the fusion splicer about how to use Image Capture.
It is necessary to be changed to Data-MODE.

4.1. **Get Manual Capture Data**

1. Push **"Manual Capture Data"** button.

2. If images are stored in the fusion splicer,
   push **"Yes"** button after the message is displayed.

Figue.4-1: message
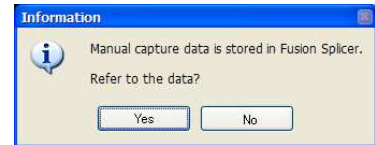
4.2. **The view of a function**

The stored images can be confirmed. The view of the screen is as follows.

① **The list of data**
   It displays the list of saved data.
   The maximum saving number is 24.

② **Detailed data**
   Details of the selected data are displayed.

③ **Images**
   The image of the saved data is displayed.
   The stored image becomes either one of X or Y.

④ **Save As…**
   The selected data is saved in PC.

Figue.4-2: Manual Capture Data
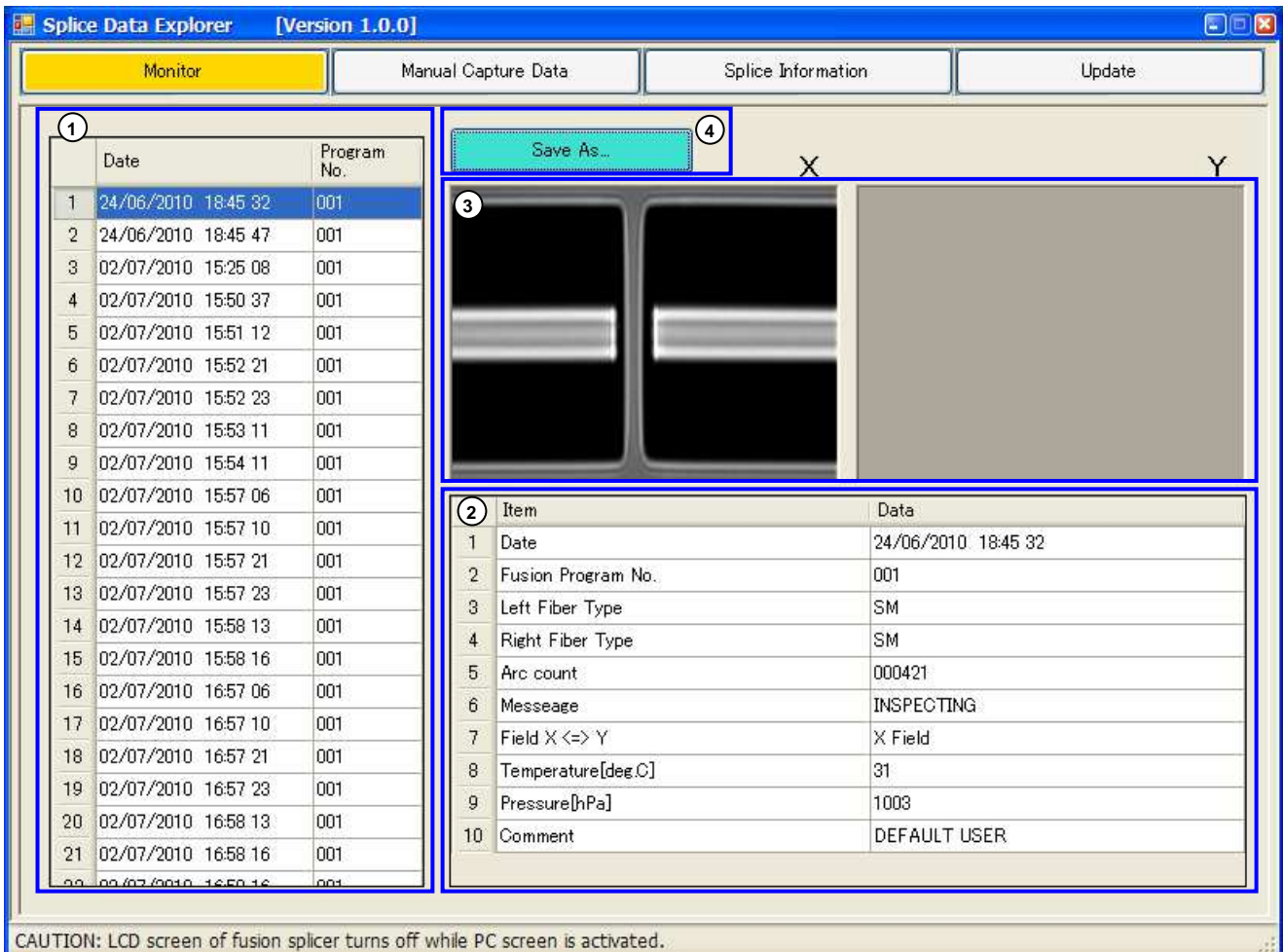
5. **Function -Splicer Information-**

This function can refer to the Splice Information stored in the fusion splicer.
"Splice Information" is automatically saved when fusion splice succeeded.
It is necessary to be changed to Data-MODE.

5.1.   Get Splicer Information

1. Push **"Splice Information"** button.

Figue.5-1: message

2. If images are stored in the fusion splicer,
   push **"Yes"** button after the message is displayed.

Information
ⓘ Splice Information is stored in Fusion Splicer. Refer to the data?
[Yes] [No]

5.2.   The view of a function (List)

The stored images can be confirmed. The view of the screen is as follows.
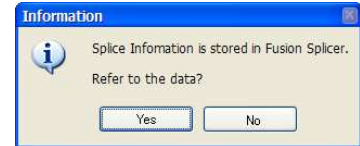
① **The list of data**
   It displays the list of saved data. The number of the data which it can save is different
   by a model of the fusion splicer.

② **Detail**
   Details of the selected data are displayed.
   Refer to "5.3.".

Figue.5-2: List of data

The fusion splicer	Save data	Image data
S178 A	2000	100
S153 A	2000	100
S123 C/M4	1500	100
S123 M8/M12	1000	100

③ **Save As…**
   The list of data is saved in PC.

Figue.5-3: Splice Information (List)

	Comment	Date	Temperature	Pressure[hP	Fusion Program No.	Left Fiber Mode	Right Fiber Mode	Left Fiber Comm
1	DEFAULT USER	02/07/2010 15:54 05	35	998	001	SM	SM	SINGLE MODE:G6
2	DEFAULT USER	02/07/2010 15:43 15	35	998	001	SM	SM	SINGLE MODE:G6
3	DEFAULT USER	02/07/2010 15:37 21	34	998	001	SM	SM	SINGLE MODE:G6
4	DEFAULT USER	02/07/2010 15:33 32	34	998	001	SM	SM	SINGLE MODE:G6
5	DEFAULT USER	24/06/2010 18:45 42	31	1004	001	SM	SM	SINGLE MODE:G6
6	DEFAULT USER	24/06/2010 18:42 37	31	1004	001	SM	SM	SINGLE MODE:G6
7	DEFAULT USER	24/06/2010 18:23 52	30	1004	001	SM	SM	SINGLE MODE:G6
8	DEFAULT USER	24/06/2010 18:21 50	30	1004	001	SM	SM	SINGLE MODE:G6
9	DEFAULT USER	24/06/2010 18:18 54	29	1003	001	SM	SM	SINGLE MODE:G6
10	DEFAULT USER	18/06/2010 21:42 06	39	774	001	SM	SM	SINGLE MODE:G6
11	DEFAULT USER	18/06/2010 21:32 03	39	766	001	SM	SM	SINGLE MODE:G6
12	DEFAULT USER	18/06/2010 21:29 00	39	777	001	SM	SM	SINGLE MODE:G6
13	DEFAULT USER	18/06/2010 21:18 50	39	763	001	SM	SM	SINGLE MODE:G6
14	DEFAULT USER	18/06/2010 21:08 30	39	774	001	SM	SM	SINGLE MODE:G6
15	DEFAULT USER	18/06/2010 20:57 55	38	769	001	SM	SM	SINGLE MODE:G6
16	DEFAULT USER	18/06/2010 20:35 11	38	772	001	SM	SM	SINGLE MODE:G6
17	DEFAULT USER	18/06/2010 20:32 26	38	1000	001	SM	SM	SINGLE MODE:G6
18	DEFAULT USER	18/06/2010 20:29 42	38	1000	001	SM	SM	SINGLE MODE:G6
19	DEFAULT USER	18/06/2010 20:26 29	38	1001	001	SM	SM	SINGLE MODE:G6
20	DEFAULT USER	18/06/2010 20:22 45	38	768	001	SM	SM	SINGLE MODE:G6

Splice Data Explorer   [Version 1.0.0]

Monitor | Manual Capture Data | Splice Information | Update

Detail ②   The item is sorted clicking.   ③ Save As…

CAUTION: LCD screen of fusion splicer turns off while PC screen is activated.

5.3.　The view of a function (Detail)

Details of the selected data can be confirmed. The view of the screen is as follows.

① **Detailed data**
Details of the selected data are displayed.

② **Scrollbar**
Detailed information and splice images are scrolled.
The information is scrolled in sorting order.

③ **Images**
The image of the saved data is displayed.

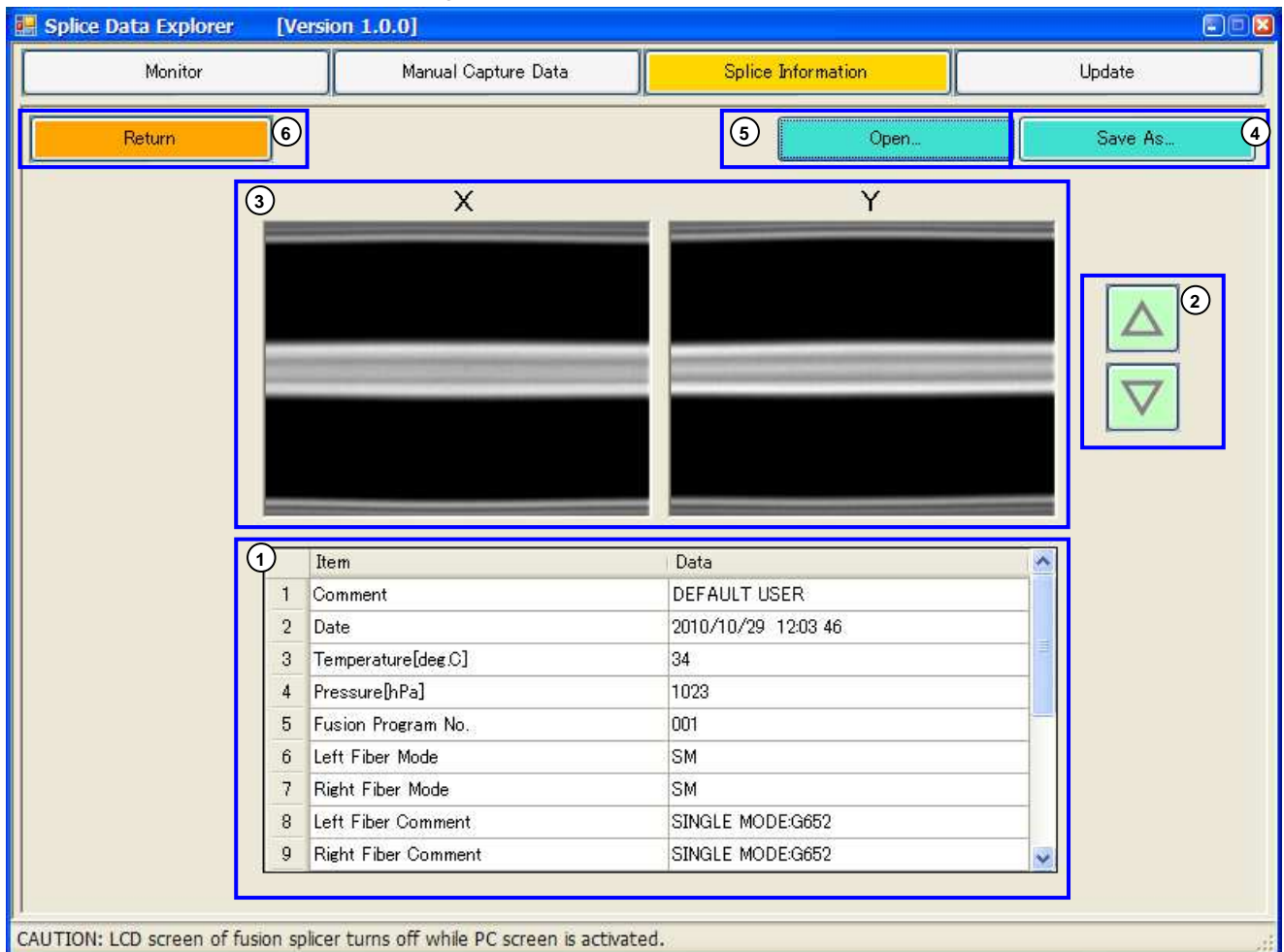### ④ **Save As…**
The selected data is saved in PC.

⑤ **Open…**
Splice information that is stored in PC is opened.

⑥ **Return**
It returns to the display of the list of Splice Information.

Figue.5-4: Splice Information (Detail)

6. **Function -Update-**

This function can update the fusion splicer and this application.
The update file gets from the internet.
It is necessary to be changed to Normal-MODE.

① **Update Fusion Splicer**
It updates software of the fusion splicer.

② **Update Splicer Data Explorer**
It updates software of this application.

③ **Current Software Version in Fusion Splicer**
A version of connected the fusion splicer
is displayed.

④ **Software information from Internet**
The version that you can download is displayed
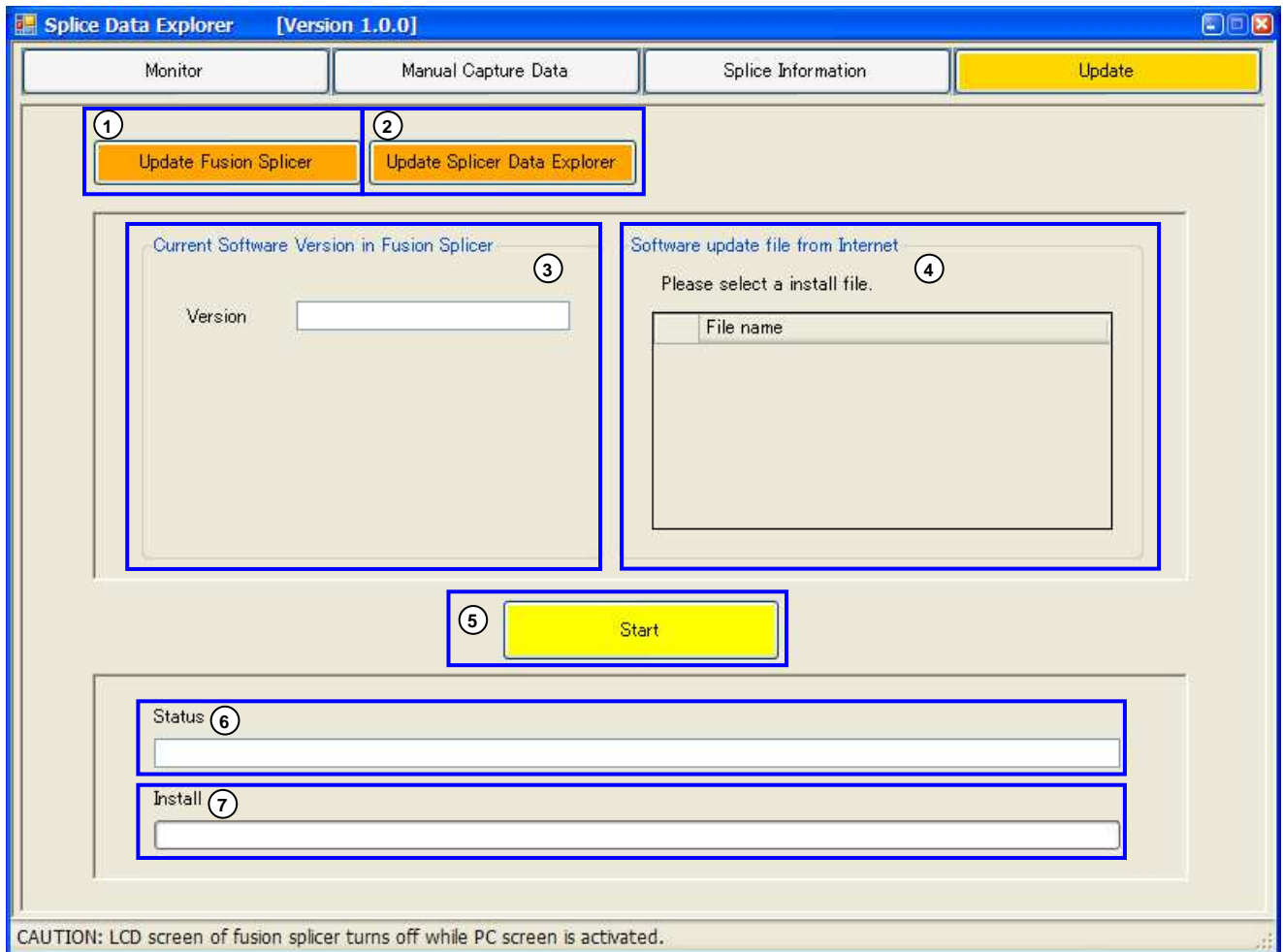by the Internet.

⑤ **Start**
It starts installation.

⑥ **Status**
The update situation is displayed.
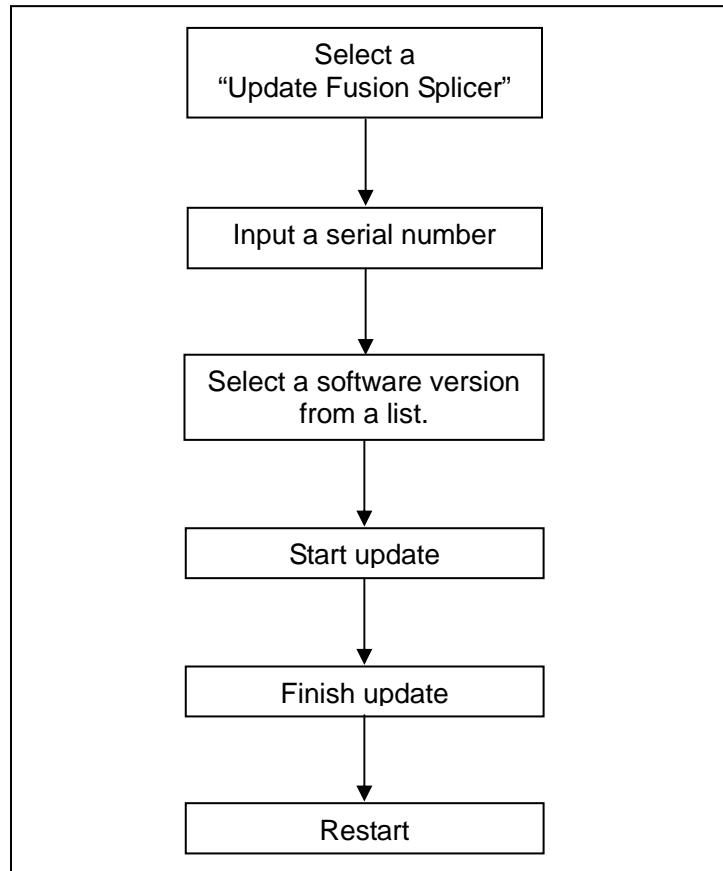
⑦ **Install**
A progress meter is displayed during update.

Figue.6-1: Update

6.1. Software Update

The fusion splicer is updated by the following flows.

Figue.6-2: flowchart of Update Fusion Splicer

```
┌─────────────────────────────────────┐
│        ┌──────────────────────┐      │
│        │      Select a        │      │
│        │ "Update Fusion Splicer" │   │
│        └──────────────────────┘      │
│                   │                  │
│                   ▼                  │
│        ┌──────────────────────┐      │
│        │  Input a serial number │     │
│        └──────────────────────┘      │
│                   │                  │
│                   ▼                  │
│        ┌──────────────────────┐      │
│        │ Select a software version │  │
│        │      from a list.      │     │
│        └──────────────────────┘      │
│                   │                  │
│                   ▼                  │
│        ┌──────────────────────┐      │
│        │     Start update      │      │
│        └──────────────────────┘      │
│                   │                  │
│                   ▼                  │
│        ┌──────────────────────┐      │
│        │    Finish update      │      │
│        └──────────────────────┘      │
│                   │                  │
│                   ▼                  │
│        ┌──────────────────────┐      │
│        │       Restart         │      │
│        └──────────────────────┘      │
└─────────────────────────────────────┘
```

⚠	**Fusion programs and heater programs are returned to default when it update of the fusion splicer.**

6.1.1. Update from supported software version

1. Push **"Update Fusion Splicer"** button.

2. Input the serial number into the message box.
   If you confirm the serial number, check the bottom case or the setting of the fusion splicer.

> 💡 | **The serial number is a figure of five digits.**
> **・Serial number is "09999".　→　Input "09999"**
> **・Serial number is "9999".　　→　Input "09999"**

3. If your PC is connected with the Internet, a version of software is displayed.

4. Push **"Start"** button, after select a software version from list.

5. It automatic starts update after download ends.

6. The cautions during update are displayed. Push **"Yes"** button when you confirm cautions.

7. When the update starts, it is displayed in Status as "Sending…"

8. When update succeeds, a message is displayed.
   And the fusion splicer automatically reboots after push **"OK"** button.

> ⚠ | **If it was disconnected communication during update,**
> **the fusion splicer might suffer serious damage.**

6.1.2. Update from unsupported software version

1. Start the application after a USB cable pull out. And select **"Update"**.

2. Push **"Update Fusion Splicer"** button, after connecting a PC and the fusion splicer with a USB cable.

3. Input the serial number into the message box.
   If you confirm the serial number, check the bottom case or the setting of the fusion splicer.

4. When update succeeds, a message is displayed.
   And reboot the fusion splicer manual operation after push **"OK"** button.

> **The serial number is a figure of five digits.**
> **・Serial number is "09999". → Input "09999"**
> **・Serial number is "9999".   → Input "09999"**
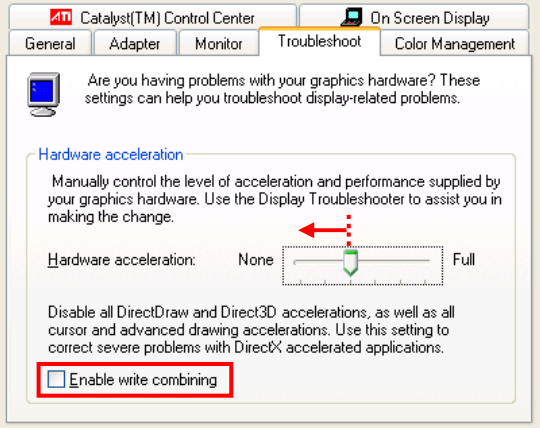
6.2.   Application Update

1. Push **"Update Splicer Data Explorer"** button.

2. It automatic starts installer after download ends.
   Exit the application, after start installer.

> **This function needs to connect an internet to download a setup file.**

7. **Troubleshooting**

Problem	PC doesn't recognize the fusion splicer.
Answer	**Check a COM port number.** 1. The port of COM16 or more cannot be recognized in Splicer Data Explorer. 2. Run a device manager to change a USB port number. http://technet.microsoft.com/en-us/library/cc754755%28WS.10%29.aspx

Problem	An error is displayed when operate "Remote Display".

Answer	**Change setting of the PC display.**
	
	1. Open a setting page.
	  ("Control panel → Appearance and Themes → Display →Settings →
	   Advanced → Troubleshoot")
	
	2. Move the "Hardware acceleration secondary" from the left.
	
	3. Remove the check from "Enable write combining".

Problem	The application doesn't respond.
Answer	**Reconnect a USB cable after pull out from PC.** If the error pop up is displayed, reconnect a USB cable after select "Continue" button.

Problem	It was connected to the Internet, but cannot acquire file information.
Answer	**Check a setting of firewall on your PC.** ・Splicer Data Explorer cannot connect with the Internet depending on PC environment of the use it may become the security setting. ・Check Splicer Data Explorer is set by the setting of the fire wall by "permission". http://www.microsoft.com/windowsxp/using/security/internet/sp2_wfintro.mspx

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