

Foot Switch Configuration Tool Specification

Ver 1.00

OLYMPUS IMAGING CORP.
Audio Business Dept.

Contents

■ 1 Introduction	4
1.1 Background	4
1.2 Summary	4
■ 2 Profile	5
2.1 Name	5
2.2 Version	5
2.3 Configuration tool profile	5
■ 3 Operation Environment	6
■ 4 Supporting Footswitches	7
4.1 New footswitches to be supported	7
4.2 USB product ID of the new footswitches	7
4.3 Serial number of footswitches	7
■ 5 Mode	7
■ 6 File Name and Folder Structure	8
■ 7 Operating Specification	9
7.1 First start	9
7.2 Start process	9
7.2.1 Language selection in starting	9
7.2.2 Behavior mode judgment	9
7.2.3 Footswitch connection confirmation	9
■ 8 User Interface	10
8.1 Setting mode	10
8.1.1 Main window (Layout tab is active / Advanced setting is not active)	10
8.1.2 Registering/Editing short cut key	11
8.1.3 Main Window (Layout tab is active / Advanced setting is not active)	12
8.1.4 Test tab	13
8.2 Menu list	14
8.2.1 File	14
8.2.2 Edit (for short cut setting)	14
8.2.3 Help	14
8.2.4 Language	15
8.3 Writing Mode	15
8.3.1 Starting message	15
8.3.2 Main window	16
8.3.3 At the end	16
■ 9 Help File	17
■ 10 Legal Information	17
10.1 Trademarks	17
10.2 Copyright	17
■ 11 Delivery Method	17

■ 12 Appendix	18
12.1 Footswitches Appearance	18
12.1.1 RS27H	18
12.1.2 RS28H	18
12.1.3 RS31H	18
12.2 Key behavior	19
12.2.1 Normal behavior	19
12.2.2 Unique Behavior	20
■ 13 Revision History	21

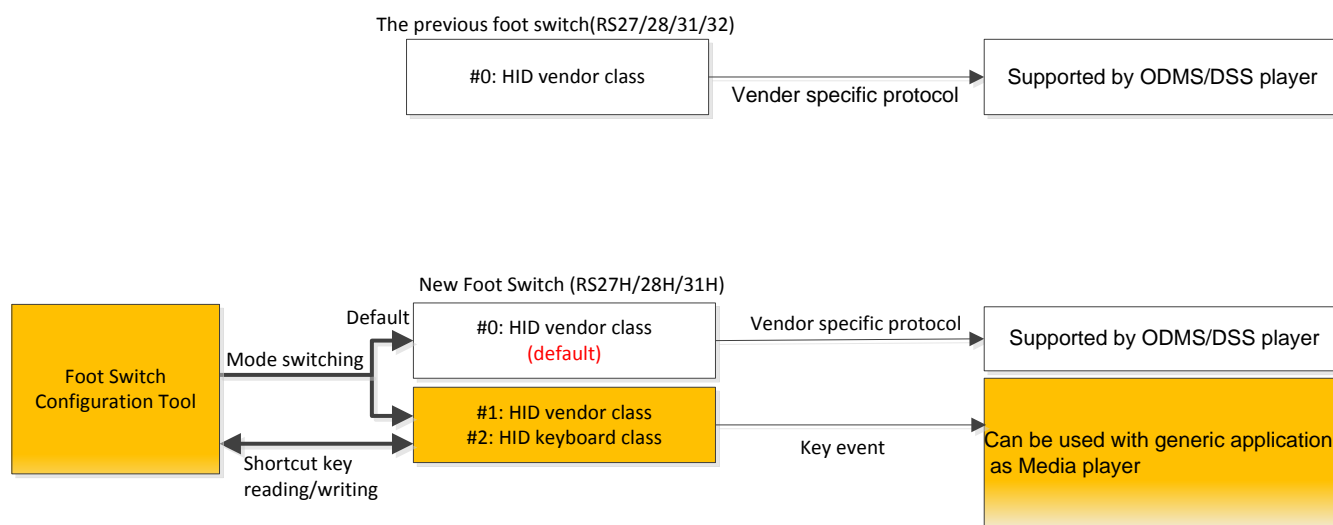
■ 1 Introduction

1.1 Background

The previous footswitches are USB HID class basis but use Olympus vender command for sending/receiving button events. This is why these footswitches can work only with Olympus applications as ODMS, DSS Player Pro, etc. and with the applications that Olympus SDK supports. However, some clients want to use Olympus footswitches with generic applications. Therefore we introduce new footswitches that have the operation mode for sending/receiving button events by a keyboard signal.

1.2 Summary

New footswitches have the operation mode that works as USB key board mode in addition to Olympus vender command mode. This enables a user to switch these two operation modes based on each application. With this improvement, a user can use Olympus footswitches with generic applications that support short cut key and hot key. The Footswitch Configuration Tool (hereafter “the tool”) is the solution to switch the operation modes of Olympus foot switches and also to apply keyboard signals (in keyboard mode) to each pedal of a footswitch. Besides, a user can apply an assigned keyboard signal to multiple foot switches consecutively in “Writing mode”. This feature is convenient for companies who need many units of footswitches that should be common setting.



■ 2 Profile

2.1 Name

Olympus Foot Switch Configuration Tool

2.2 Version

Version	Remark
Ver 1.0.0	New

2.3 Configuration tool profile

- Execution program without installer, just click “exe.” to start
- No license key required
- Compatible with new footswitches, RS27H/28H/31H
- Has the following features
 - Shortcut key setting for each pedal by template
 - Each template assignment for each application
 - Up/Down event assignment for each pedal
 - USB connection mode switching (HID class vender mode and HID class keyboard mode)
 - Key event displaying
 - Consecutive setting for multiple footswitches (Writing mode)
 - Eight Languages (See “[Operation environment \(Page 6\)](#)” for detailed information)
 - Help

NOTE: A key setting in vender mode can be processed only with Olympus applications as ODMS, DSSPlayer Standard, etc.

■ 3 Operation Environment

Windows

Items	Conditions
OS	<p>Microsoft® Windows Vista® Ultimate / Enterprise / Business / Home Premium / Home Basic SP2 (x86/x64) Excluding Starter Edition</p> <p>Microsoft® Windows® 7 Ultimate / Enterprise / Professional / Home Premium SP1 (x86/x64) Excluding Starter Edition</p> <p>Microsoft® Windows® 8 Enterprise / Pro / Windows 8 (x86/x64)</p> <p>Microsoft® Windows® 8.1 Enterprise / Pro / Windows 8.1 (x86/x64)</p>
.NET Framework	.NET Framework 3.5 or higher
Display	1024 x 768-pixel resolution or higher 65,536 colors or more (16.77 million colors or more recommended)
USB	One or more USB ports available
Supported Language	English, French, German, Spanish, Russian, Swedish, Czech and Japanese

No support for virtual environment.

Macintosh

Items	Conditions
OS	MacOS X 10.5 - 10.10
Display	1024 x 768-pixel resolution or higher 65,536 colors or more (16.77 million colors or more recommended)
USB	One or more USB ports available
Supported Language	English, French, German, Spanish, Russian, Swedish, Czech and Japanese

■ 4 Supporting Footswitches

4.1 New footswitches to be supported

RS27H, RS28H and RS31H

4.2 USB product ID of the new footswitches

The new footswitches have each PID for HID class vender mode and HID class keyboard mode.

- HID class vender mode
PID is same as the previous models (RS27/28/31) for the compatibility.
- HID class keyboard mode
Each footswitch has each PID so that it can be recognized when connected to PC.

Footswitch	The previous PID in HID class vender mode	New PID in HID class keyboard mode	Note
RS27H	0x218	<TBD>	The PID in HID class keyboard mode is different for RS27H and 28H
RS28H		<TBD>	
RS31H	0x25F	<TBD>	

4.3 Serial number of footswitches

The serial number of a connected RS27H/28H/31H can be confirmed by the tool.

■ 5 Mode

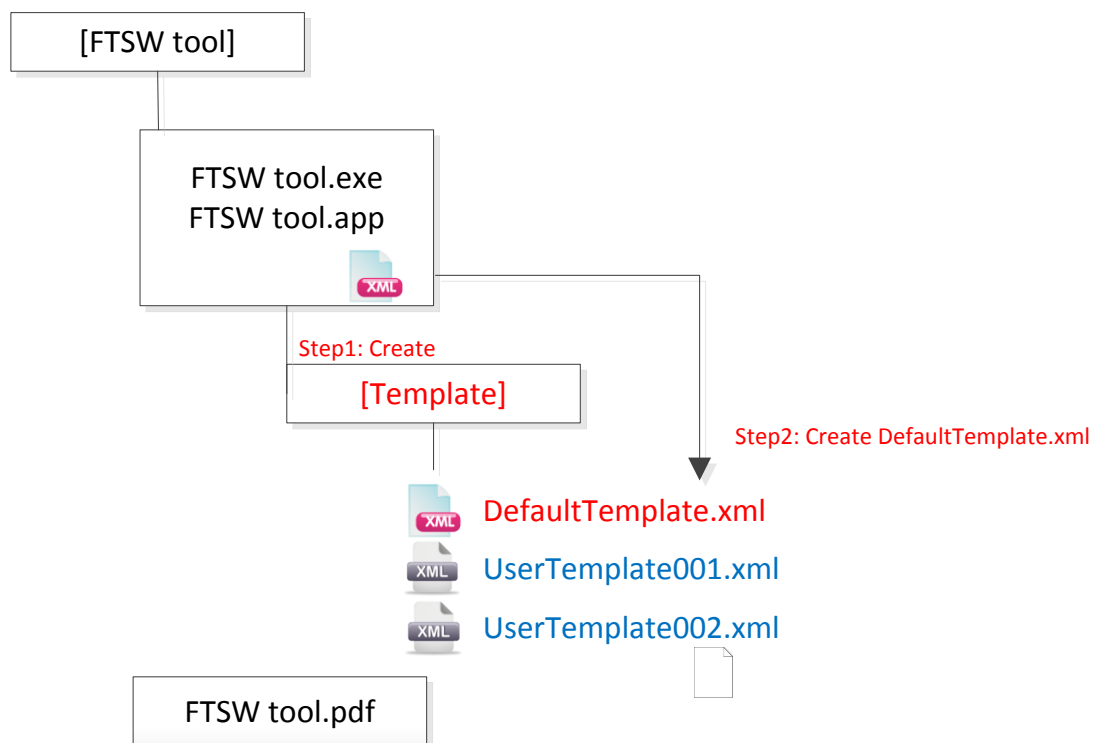
The tool has the following two modes.

No.	Mode	Description
1	Setting Mode	For setting and changing setting of a footswitch
2	Writing Mode	For transferring a setting to multiple footswitches consecutively. A setting (keyboard signal assignment) can be processed in Setting mode only.



■ 6 File Name and Folder Structure

The tool is supplied as a zip file. An execution file as FTSW tool.exe (Windows) or FTSE tool.app (Mac) will be saved after being unzipped.



■ 7 Operating Specification

7.1 First start

After starting the tool, a template folder will be created as same class as folder exe(app) then Defaulttemplate.xml will be also created inside there automatically.

7.2 Start process

7.2.1 Language selection in starting

A language for the tool is selected automatically based on OS language information. It will be English if the tool does not support a language of OS. See [3.Operation Environment](#) for details. A language can be selected from [File]-[Language Select] menu too.

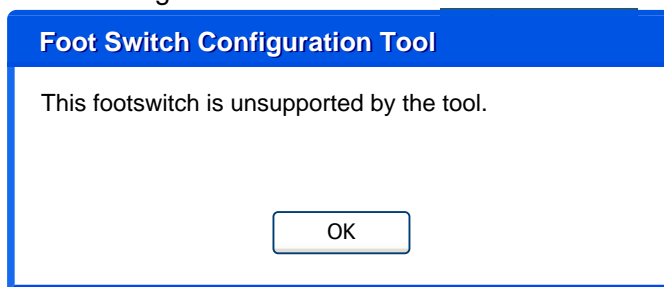
7.2.2 Behavior mode judgment

A mode will be Writing mode by pressing the [ESC] key when starting the tool. Otherwise, it will be Setting mode.

7.2.3 Footswitch connection confirmation

The tool judges if a connected footswitch is previous or new series. The error message A will be displayed in case of previous footswitches. The error message B will displayed if more than two footswitches are connected to PC.

Error message A



Error message B

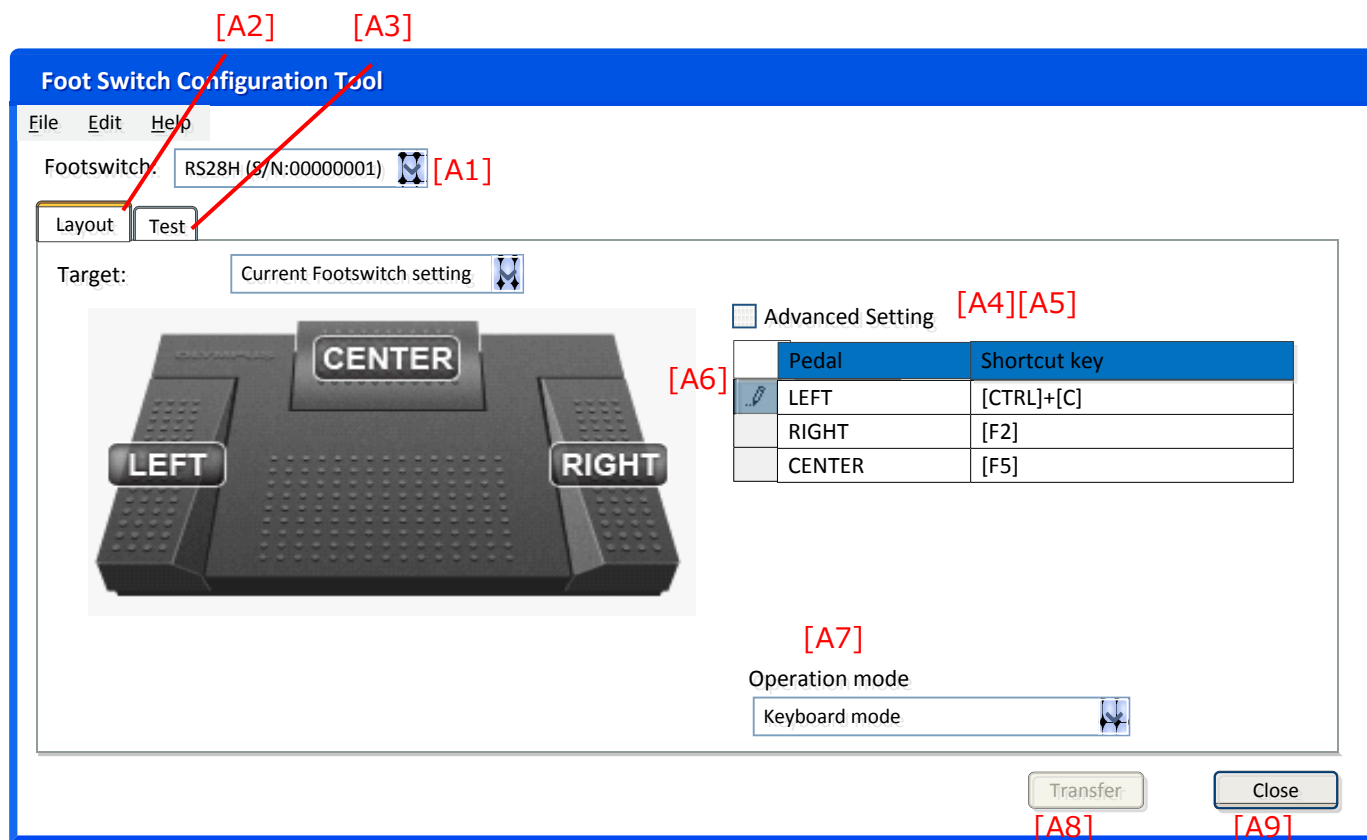



■ 8 User Interface

8.1 Setting mode

8.1.1 Main window (Layout tab is active / Advanced setting is not active)

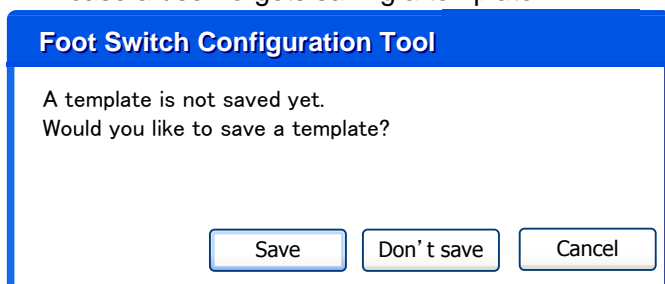
The layout tab [A2] is active whenever the tool is started. See each name and role in the window as below.



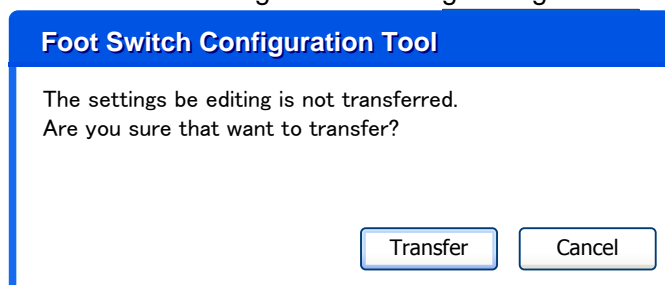
No	Name	Description
[A1]	Footswitch List Box	For displaying a footswitch that is connected to PC.
[A2]	Switching Tab *Layout Tab *Test Tab	For switching the main window *Layout Tab: Displays short cut key setting window for a footswitch. *Test Tab: Displays a key event that a connected footswitch issues.
[A3]	Target List Box	For selecting an object to be displayed in the main window. "Current Footswitch Setting", "Default Template", "Template", etc. will be here.
[A4]	Advanced Setting	ON (Check in the box): For setting each event to be applied to "pushing timing" and "releasing timing" of a footswitch. OFF (Default, uncheck in the box): For setting event to be applied to "pushing timing" of a footswitch. This is same as a general keyboard.
[A5]	Shortcut Key Setting	For setting a short cut key.
[A6]	Edit  Button	For editing a short cut key. This button needs to be clicked before starting edit.
[A7]	Operation mode	For selecting an operation mode of a footswitch to be connected. The default is "HID keyboard mode".
[A8]	Transfer Button	For transferring short cut key setting to a footswitch
[A9]	Close Button	For closing the tool. The warning messages will be displayed when a user forgets saving a template and/or transferring setting to a footswitch. See examples next page.

The warning messages when the tool is closed.

In case a user forgets saving a template




In case a user forgets transferring setting to a connected footswitch




8.1.2 Registering/Editing short cut key

Registration: A shortcut key can be assigned by clicking cell and press keyboards that a user want to assign.

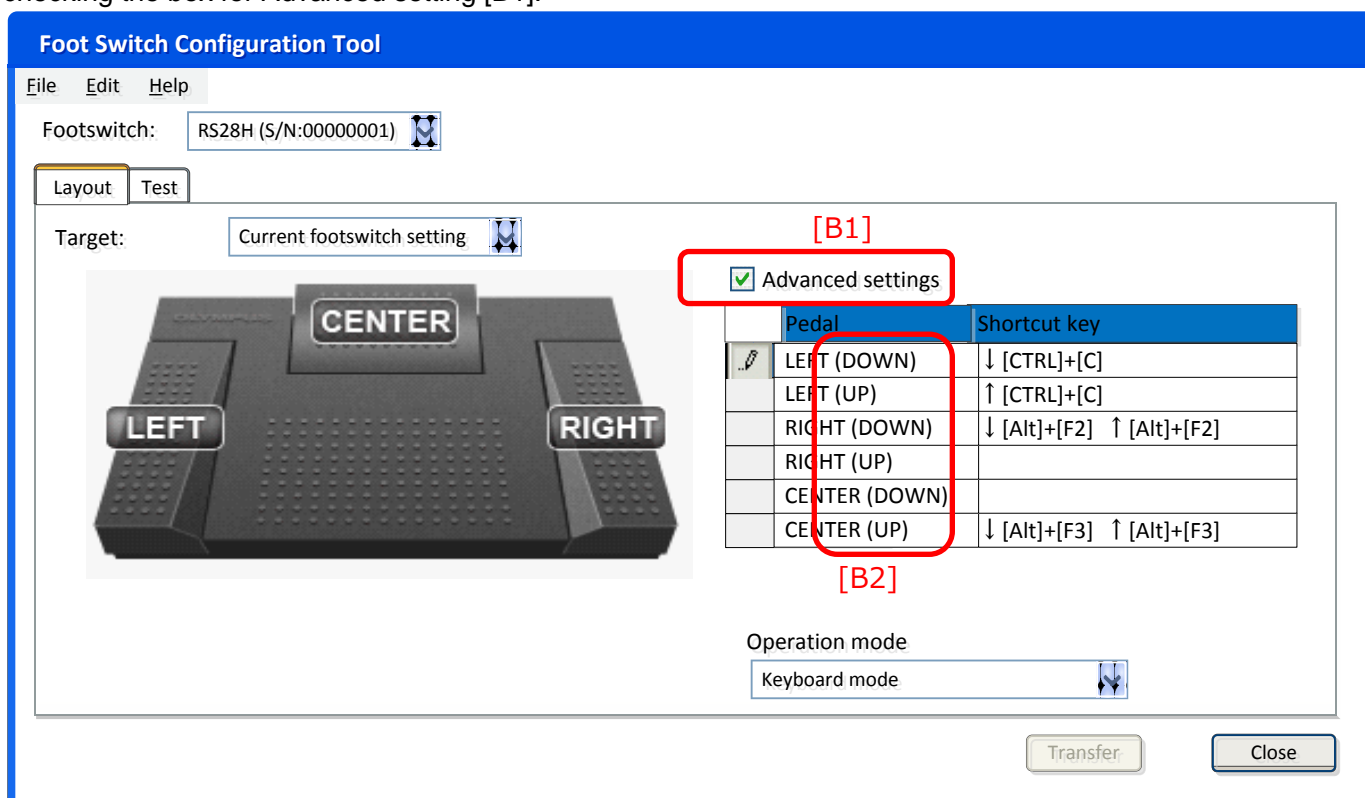
Edit: A shortcut key (text) can be edited by clicking  icon.

☐ Advanced settings

	Pedal	Shotcut key▼
	LEFT(DOWN)	[CTRL]+[C]
	CENTER(DOWN)	
	RIGHT(DOWN)	

8.1.3 Main Window (Layout tab is active / Advanced setting is not active)

Each even for pushing (down) timing and releasing (up) timing of a footswitch pedal [B2] can be assigned by checking the box for Advanced setting [B1].



For example, “LEFT: [CTRL]+[C]” setting will be “[LEFT(DOWN): ↓ [CTRL]+[C]” & [LEFT(UP): ↑ [CTRL]+[C]” as below in case a user checks the box for Advanced setting.

Advanced Setting OFF (Default)

☐ Advanced Settings

Pedal	Shortcut key
LEFT(DOWN)	[CTRL]+[C]
CENTER(DOWN)	
RIGHT(DOWN)	

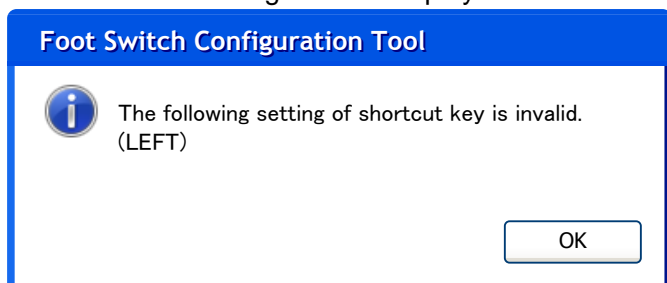


Advanced Setting ON

☒ Advanced Settings

Pedal	Shortcut key
LEFT(DOWN)	↓ [CTRL]+[C]
LEFT(UP)	↑ [CTRL]+[C]
CENTER(DOWN)	
CENTER(UP)	
RIGHT(DOWN)	
RIGHT(UP)	

The error message will be displayed when a user attempts to set up invalid and non-regulated shortcut key.



See “[Unique Behavior](#)”

A same signal is not repeated even if a pedal is being pressed for long time.

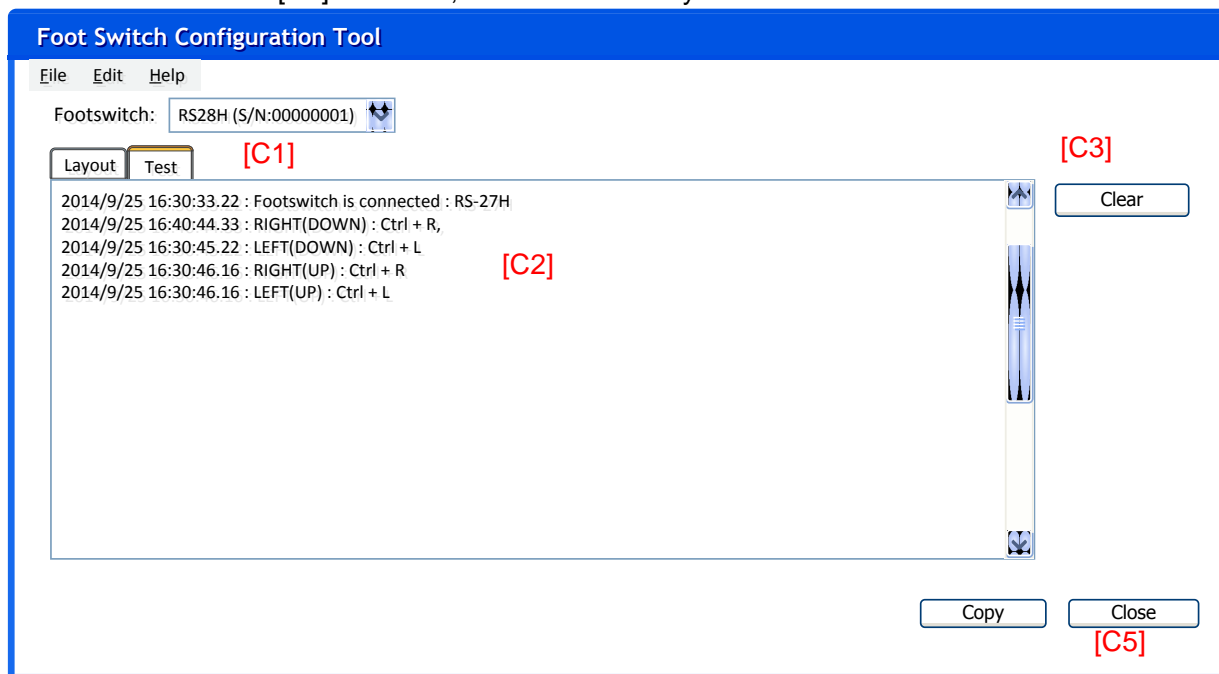
A released signal [F2] is issued (as if a pedal is released but not released yet actually) right after a pressed signal [F1] is issued so that the tool avoids a repeating signal which is explained in the previous page (12.2.1).

When a pedal is released actually, a pressed signal [F3] and a released signal [F4] are issued.

(Page 19)" for details.

8.1.4 Test tab

After Test tab [C1] is clicked, the tool shows key events that a connected footswitch issued [C2].



No	Control name	Description
[C1]	Test tab	For activating the key event display. It will become Non-active automatically when Layout tab is selected.
[C2]	Key event display area	For displaying key events. This area can not be edited but "Ctrl+A (select all)" and "Ctrl+C (copy)" can be processed.
[C3]	Clear button	For clearing a result of key events.
[C4]	Copy button	For copying a result of key events in clip board.
[C5]	Close button	For closing the tool.

All key events are detected when a footswitch is connected/disconnected and its pedal is pressed/released then displayed as real time output. The format is as follows.

{Date}" {Time}" : "{Item}" : "{Value}"

e.g.

2014/9/25 16:30:33.22 : Connected: RS-27N
 2014/9/25 16:40:44.33 : RIGHT(DOWN): ↓[Ctrl]+[R]
 2014/9/25 16:30:45.22 : LEFT(DOWN): ↓[Ctrl]+[L]
 2014/9/25 16:30:46.16 : RIGHT(UP): ↑[Ctrl]+[R]
 2014/9/25 16:30:46.16 : LEFT(UP): ↑[Ctrl]+[L]
 2014/9/25 16:30:33.22 : Disconnected: RS-27N

8.2 8.2 Menu list

8.2.1 File

Item	Description
New Template	For creating new template.
Save	For saving template.
Save Template as...	For saving template with a name.
Delete Template	For deleting a selected template.
Select Language...	For selecting language to be displayed.
Read from	For reading short cut setting from the connected footswitch.
Transfer to Footswitch	For transferring short cut setting to the connected footswitch.
Reset Footswitch	For resetting short cut setting (returning to default)
Exit	For closing the tool.

8.2.2 Edit (for short cut setting)

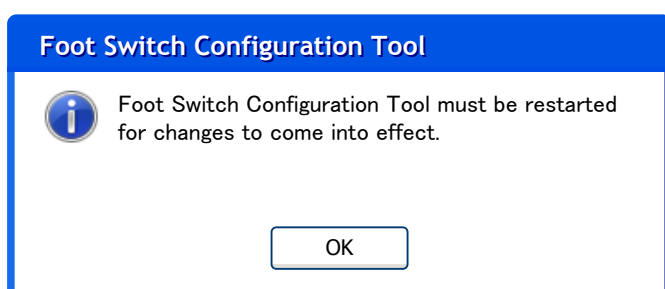
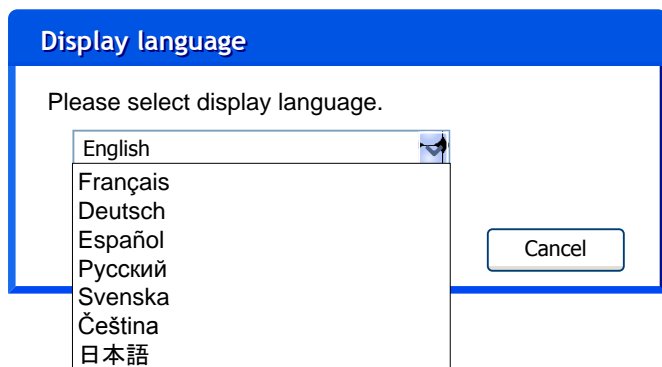
Item	Description
Cut	For cutting a selected key
Copy	For copying a selected key
Paste	For pasting a selected key.
Select All	For selecting all.

8.2.3 Help

Item	Description
Contents	For displaying Help.
Legal information	For displaying the legal information.
About	For displaying the version information of the tool.

8.2.4 Language

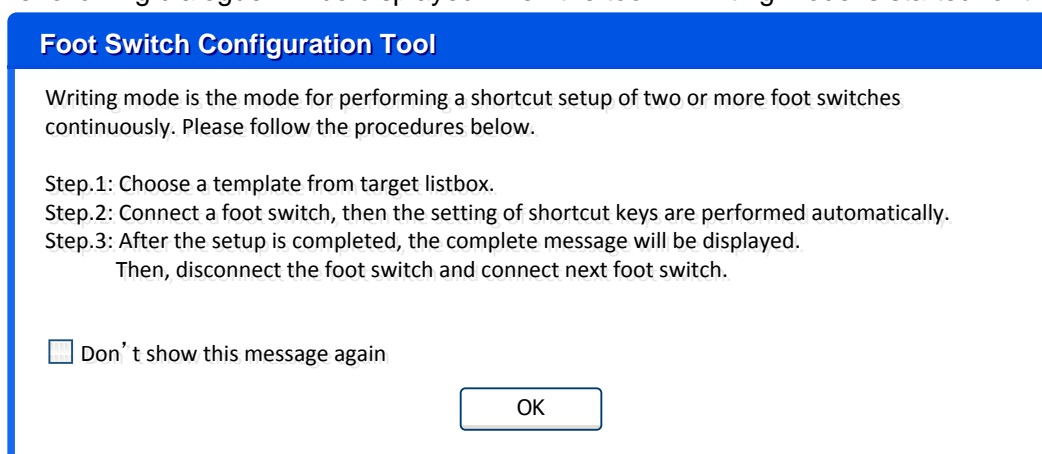
A user can select a language to be displayed from the [File]-[Select Language...] dialogue. A selected language will be active after the tool is restarted.



8.3 Writing Mode

8.3.1 Starting message

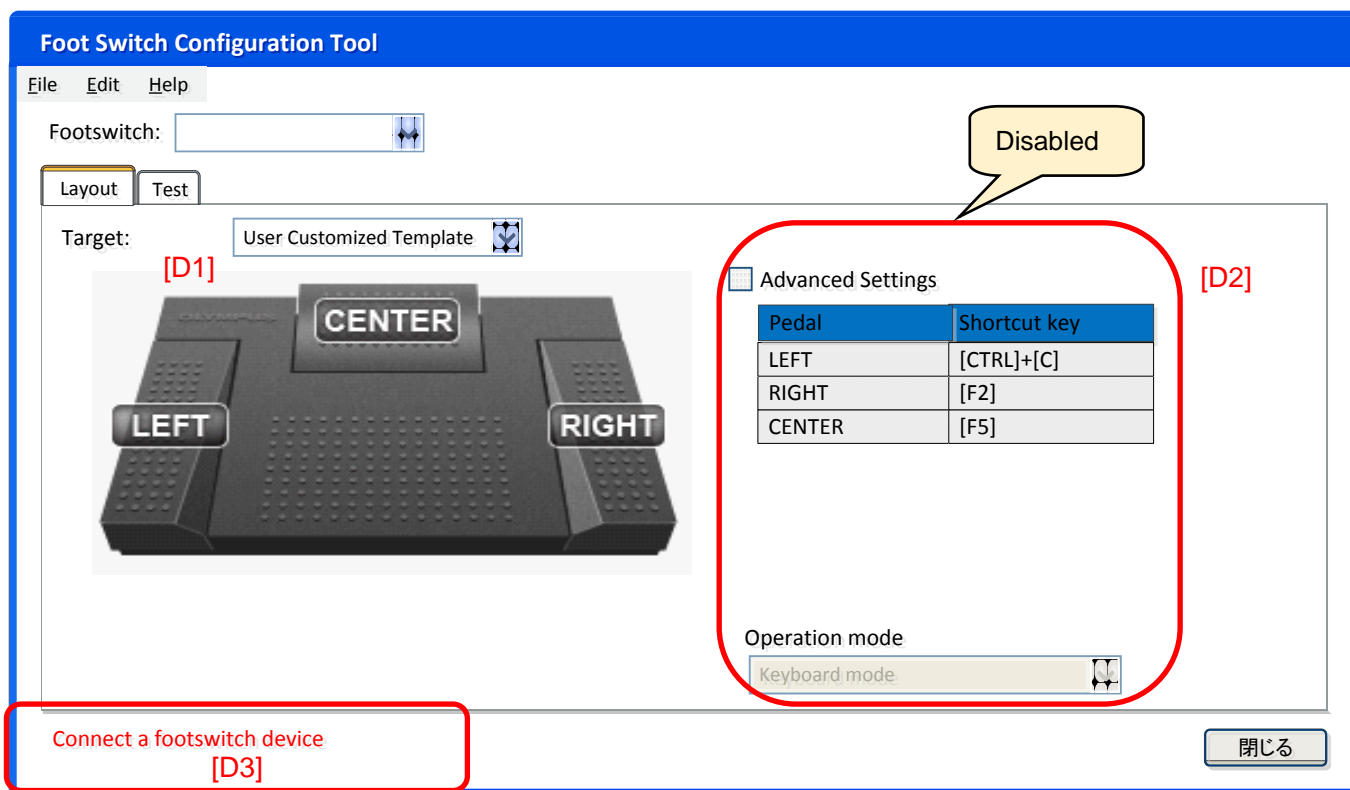
The following dialogue will be displayed when the tool in Writing mode is started for the first time.



8.3.2 Main window

A user needs to select a template from Target list box [D1] in Writing mode but can not change setting [D2]. The message [D3] will be displayed to prompt a user to connect a footswitch if not connected yet. Setting will be transferred to a footswitch automatically after it is connected to PC.

Main Window for Writing mode



8.3.3 At the end

The following message will be displayed when a transaction is completed.

The set up for the footswitch is completed.
Please remove the footswitch from PC.

■ 9 Help File

The quick guide in PDF file is available from [Help] – [Contents] menu.

■ 10 Legal Information

The legal information can be viewed from [Help]-[Legal Information] menu. The contents are displayed as Notepad(Windows) or TextEdit(Macintosh).

10.1 Trademarks

Windows:

Microsoft, Windows, Windows Media, Windows Media Player, Windows Server, Outlook, DirectX, Active Directory, and DirectShow are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.

Other company and product names mentioned in this document are trademarks or registered trademarks of their respective owners.

Macintosh:

Macintosh is a registered trademark of Apple Computer, Inc in the US and/or other countries.

Other company and product names mentioned in this document are trademarks or registered trademarks of their respective owners.

10.2 Copyright

Copyright (C) 2015 OLYMPUS CORPORATION All rights reserved.

■ 11 Delivery Method

The tool is downloadable from the website (Location is TBD).

■ 12 Appendix

12.1 Footswitches Appearance

12.1.1 RS27H



- LEFT
- RIGHT
- CENTER

12.1.2 RS28H



- LEFT
- RIGHT
- CENTER

12.1.3 RS31H

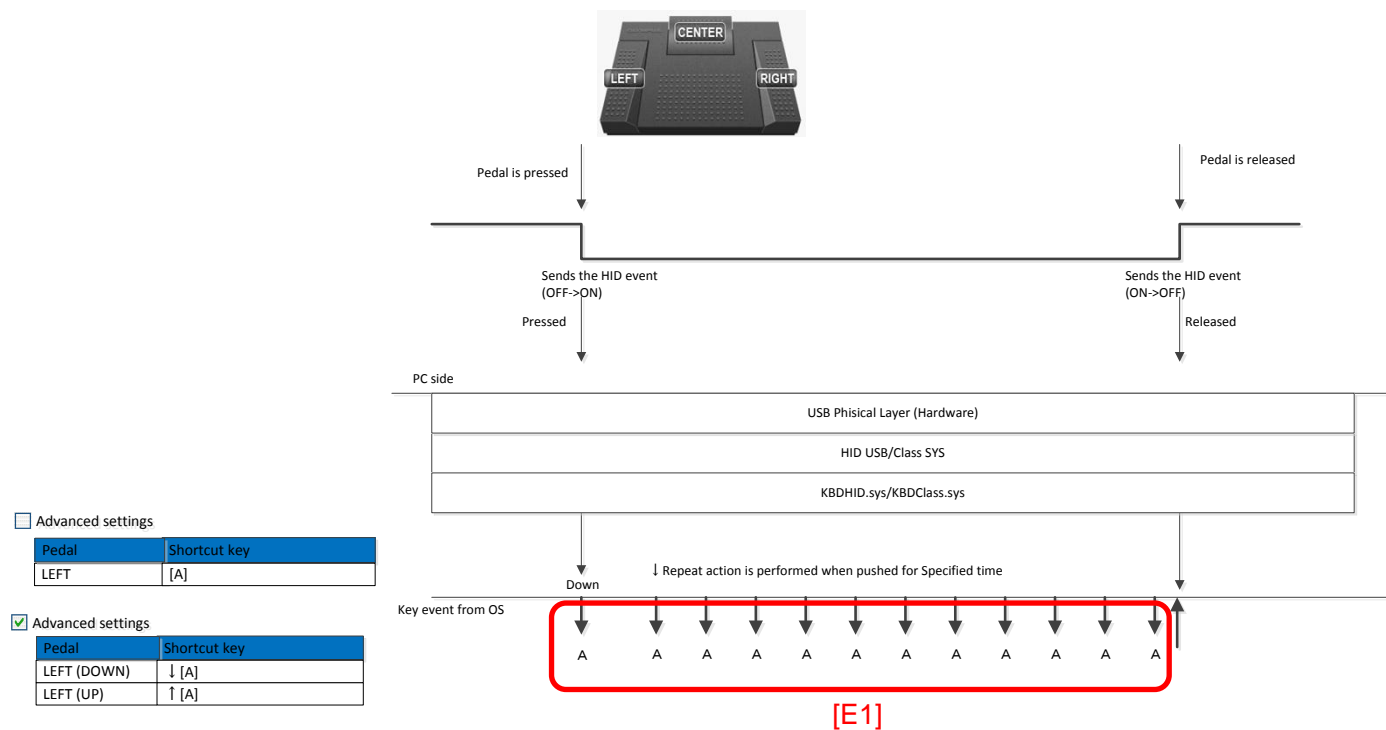


- LEFT
- RIGHT
- CENTER
- TOP

12.2 Key behavior

12.2.1 Normal behavior

A same signal [E1] will be issued repeatedly during a pedal is being pressed.

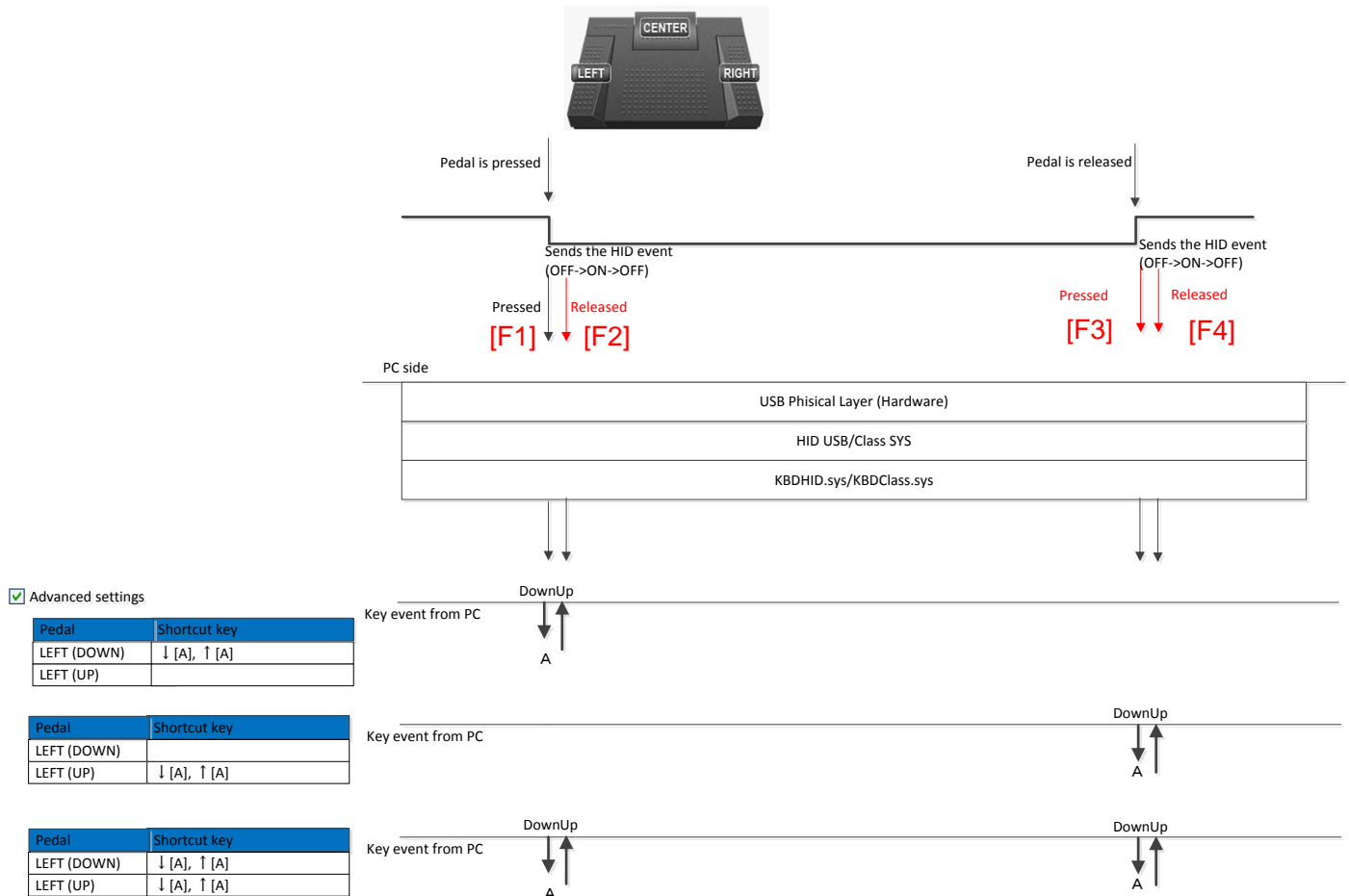


12.2.2 Unique Behavior

A same signal is not repeated even if a pedal is being pressed for long time.

A released signal [F2] is issued (as if a pedal is released but not released yet actually) right after a pressed signal [F1] is issued so that the tool avoids a repeating signal which is explained in the previous page (12.2.1).

When a pedal is released actually, a pressed signal [F3] and a released signal [F4] are issued.



[EOF]

■ 13 Revision History

Version	Page	Update	Date
1.00	-	New	2015/2/26