



Introduction

This user manual explains how to use the USB HID (human interface device) demonstrator application. The objective of this application is to provide a Windows-based host software application and an easily understood example of how to exchange data using the HID class protocols.

1 Getting started

1.1 System requirements

In order to use the USB HID demonstrator with the Windows operating system, a recent version of Windows, such as Windows 98 SE, Windows Millennium, Windows 2000, Windows XP or Vista must be installed on your PC.

The version of the Windows OS installed on your PC may be determined by clicking on the "System" icon in the Control Panel.

1.2 Software installation

Run setup.exe to install the USB HID demonstrator, and follow the on-screen prompts to complete the installation.

2 User interface description

The user interface consists of four pages that provide device information, data transfer editors and a customizable graphical view of the input/output sources. The different pages are listed below.

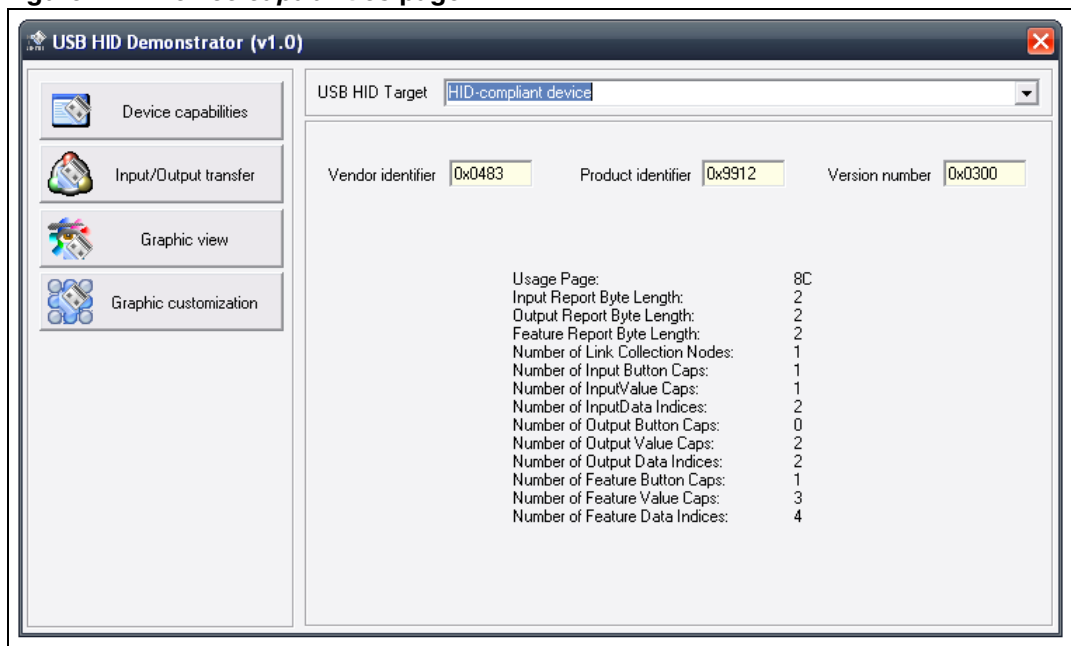
- *Device capabilities*
- *Input/Output transfer*
- *Graphic view*
- *Graphic customization*

The following sections describe these pages.

2.1 *Device capabilities page*

After the device enumeration, the device information is retrieved and displayed on the page as shown in [Figure 1](#). The vendor identifier (VID), product identifier (PID) and version number appear, and the capabilities of the implemented HID class are listed.

Figure 1. *Device capabilities page*

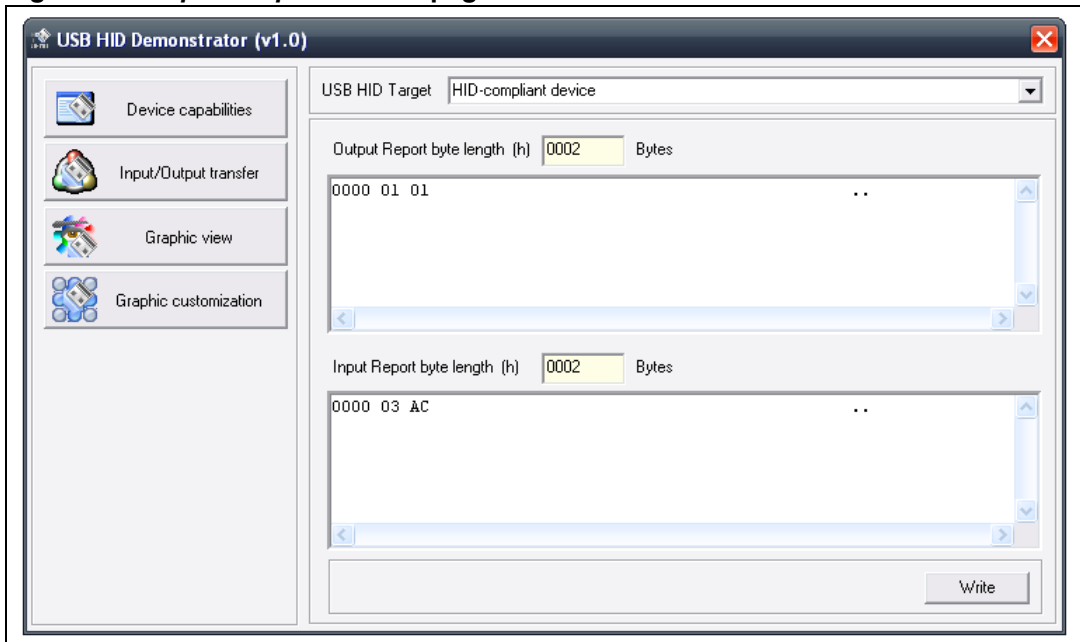


2.2 Input/Output transfer page

This page allows the transmission of the HID reports to and from a HID Class device. After the device enumeration, the length of the report buffer is fixed to the values extracted from the report descriptor (as shown in the *Device capabilities* page [Figure 1.](#)), two hexadecimal editors are available, the first is used to send reports, the second to display the received reports.

The first byte of each editor is reserved for the report ID.

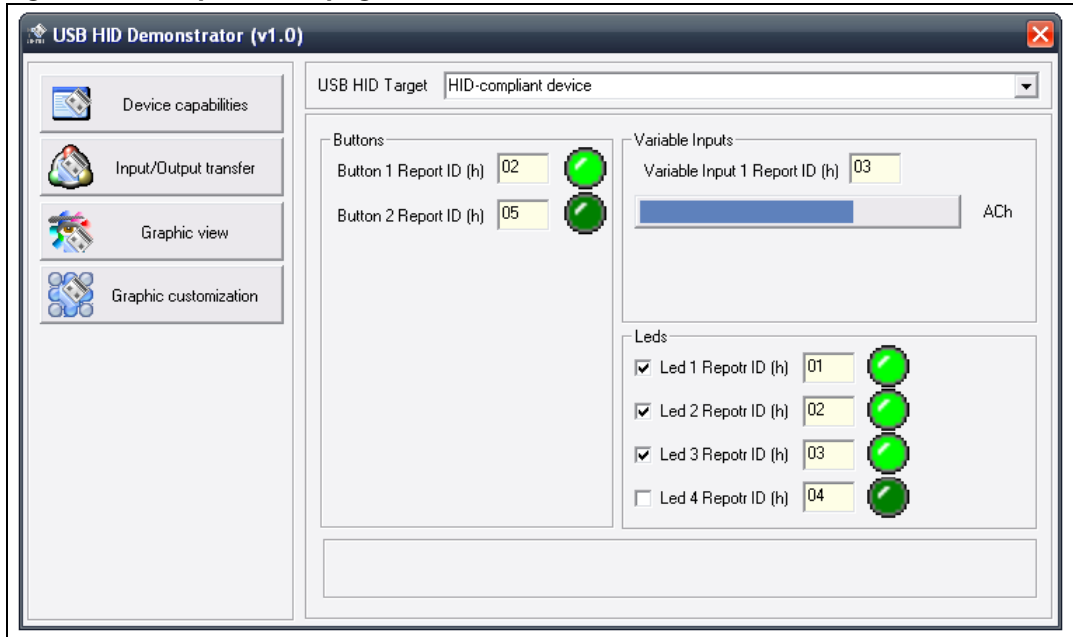
Figure 2. *Input/Output transfer page*



2.3 Graphic view page

The *Graphic view* page provides a customizable graphic view of the available inputs/outputs on the used device, it can display binary inputs (buttons), binary outputs (LEDs), variable inputs (trimmers) and variable outputs (gauges). The view of the page can be customized in the *Graphic customization* page. [Figure 4](#).

Figure 3. Graphic view page

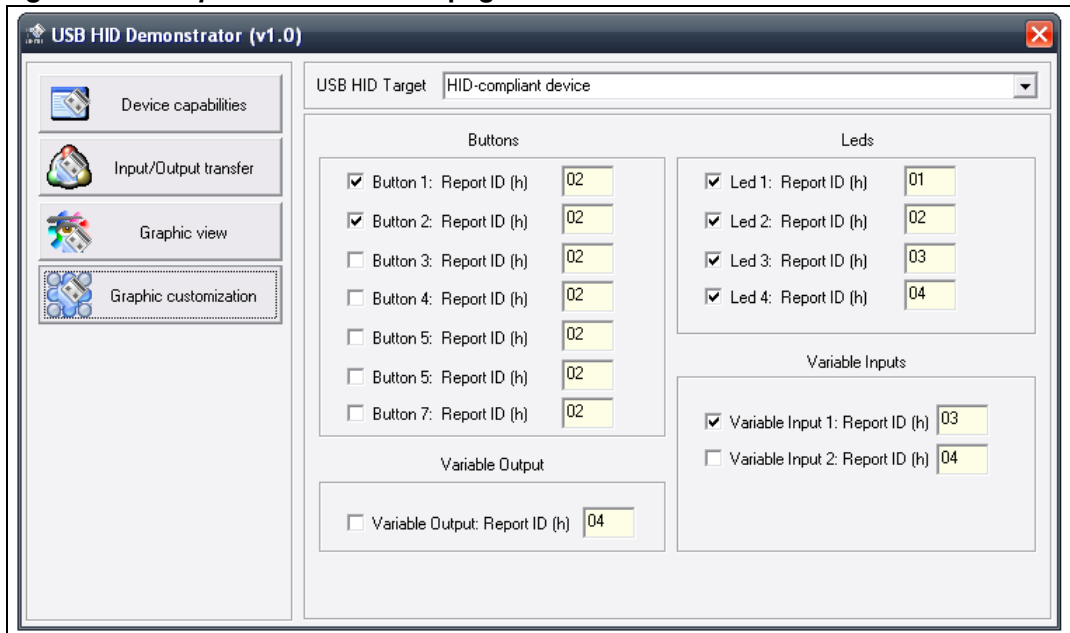


2.4 Graphic customization page

This page provides the available components to be displayed on the *Graphic view* page. *Figure 3*. Each component is characterized by a check box and an edit field. The check box is used to show or hide the component in the *Graphic view* page, the edit field is used to assign a report ID to the component.

Each modification in this page is saved and applied to the *Graphic view* page even if the application is closed.

Figure 4. Graphic customization page



3 Revision history

Table 1. Document revision history

Date	Revision	Changes
22-May-2008	1	Initial release.

Please Read Carefully:

Information in this document is provided solely in connection with ST products. STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All ST products are sold pursuant to ST's terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the ST products and services described herein, and ST assumes no liability whatsoever relating to the choice, selection or use of the ST products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by ST for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

UNLESS OTHERWISE SET FORTH IN ST'S TERMS AND CONDITIONS OF SALE ST DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND/OR SALE OF ST PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

UNLESS EXPRESSLY APPROVED IN WRITING BY AN AUTHORIZED ST REPRESENTATIVE, ST PRODUCTS ARE NOT RECOMMENDED, AUTHORIZED OR WARRANTED FOR USE IN MILITARY, AIR CRAFT, SPACE, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS, NOR IN PRODUCTS OR SYSTEMS WHERE FAILURE OR MALFUNCTION MAY RESULT IN PERSONAL INJURY, DEATH, OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE. ST PRODUCTS WHICH ARE NOT SPECIFIED AS "AUTOMOTIVE GRADE" MAY ONLY BE USED IN AUTOMOTIVE APPLICATIONS AT USER'S OWN RISK.

Resale of ST products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by ST for the ST product or service described herein and shall not create or extend in any manner whatsoever, any liability of ST.

ST and the ST logo are trademarks or registered trademarks of ST in various countries.

Information in this document supersedes and replaces all information previously supplied.

The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners.

© 2008 STMicroelectronics - All rights reserved

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

www.st.com