

Keyboard Emulation MSR Keyboard Mapping

Overview

There are two methods for programming the Magtek Keyboard Emulation MSR's to a foreign keyboard map.

One method is to download prepared scripts which are available for the following keyboards:

- English (United States) Keyboard (Default Keyboard)
- French (France) Keyboard
- German (Germany) Keyboard
- Italian (Italy) Keyboard
- Spanish (Spain) Keyboard

The second method is to program each ASCII character to correspond with that countries keyboard.

Method 1 - Using Prepared Scripts

When using prepared scripts to program the MSR, the following will be needed:

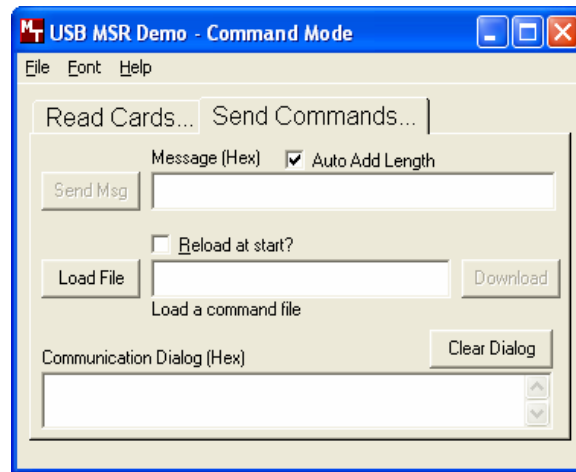
- Magtek's USB MSR demo program:
http://www.magtek.com/support/software/demo_programs/usb_swipe_insert.asp
- Appropriate language script. Available language scripts are:
 - English (United States) Keyboard (Default Keyboard)
 - French (France) Keyboard
 - German (Germany) Keyboard
 - Italian (Italy) Keyboard
 - Spanish (Spain) Keyboard

Installation Instructions:

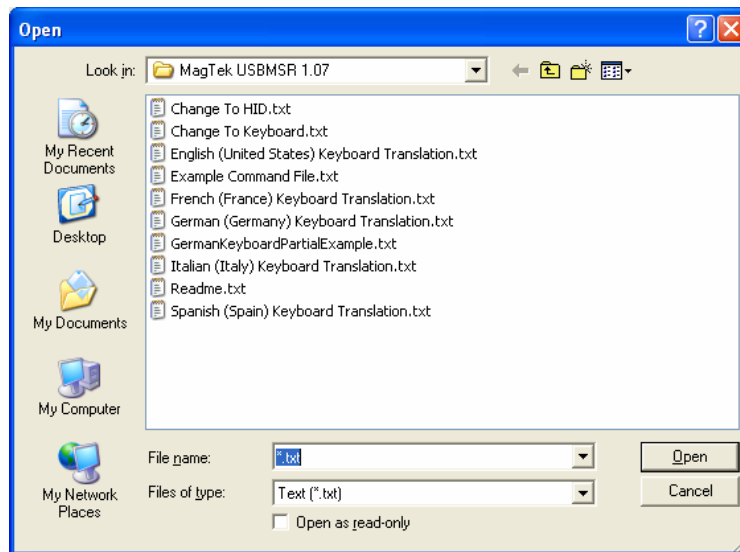
- Download and install Magtek's USB MSR demo program.
- Save the appropriate language script to:
 - o C:\Program Files\MagTek\MagTek USBMSR 1.07

Operating Instructions:

- Plug the Magtek USB MSR into a USB port on the host.
- Run the demo program (USBMSR.exe).
- To send commands to the device, click on the “Send Commands” tab.
- Click on “Load File” tab.



- The default location for the “Load File” tab is:
 - o C:\Program Files\MagTek\MagTek USBMSR 1.07



- Select the appropriate language script.
 - Select the “Open” tab.
 - Wait for the command to load, and the device to reset.
 - Click on the “Read Cards” Tab to swipe a card to test.
- The MSR has now been remapped to custom keyboard map.

Method 2 – Manual Programming

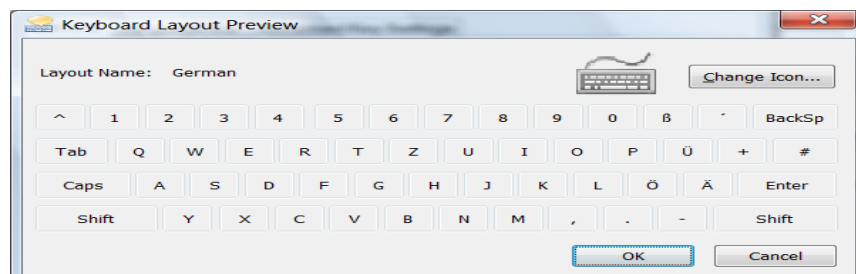
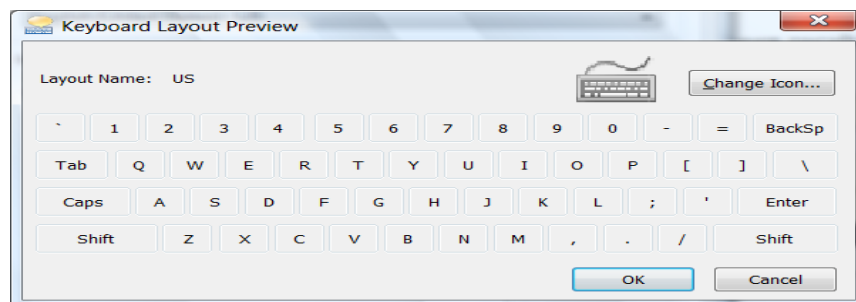
For manual programming of the MSR, the following will be needed:

- Magtek's USB MSR demo program:
http://www.magtek.com/support/software/demo_programs/usb_swipe_insert.asp
- Magtek's technical reference manual which includes a Keyboard\Keypad table for USB key codes (Appendix A) and Modifier Byte Definitions (Appendix B):
<http://www.magtek.com/documentation/public/99875206-13.01.pdf>
- ASCII HEX conversion table
- The MSR must be in keyboard emulation to map keyboard changes. Change Mode Utility to toggle MSR's between HID and keyboard emulation can be downloaded here:

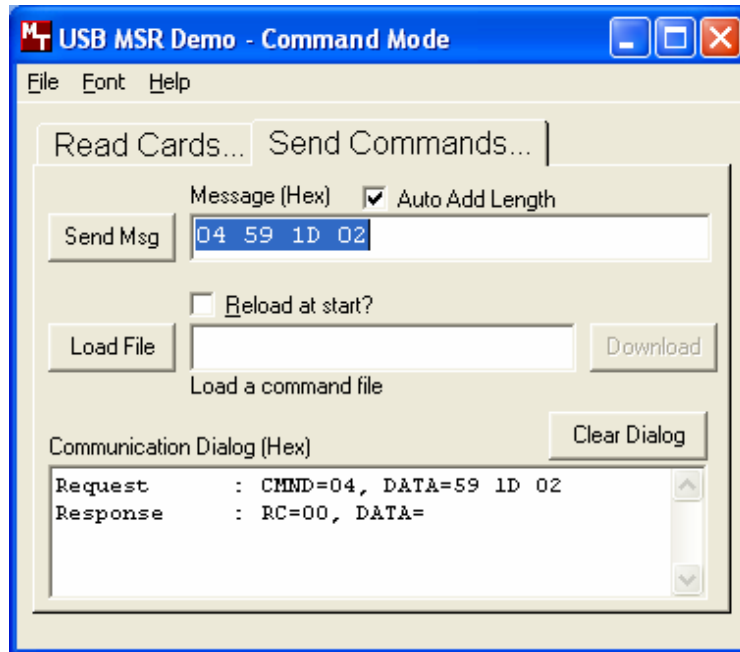
<http://www.elotouch.com/Support/Downloads/dnld.asp#utilities>

To remap a USB keyboard emulation MSR from its default United States keyboard map to a foreign keyboard map, you must remap every ASCII character that the reader might send to its correct foreign keyboard USB usage ID and USB key modifier.

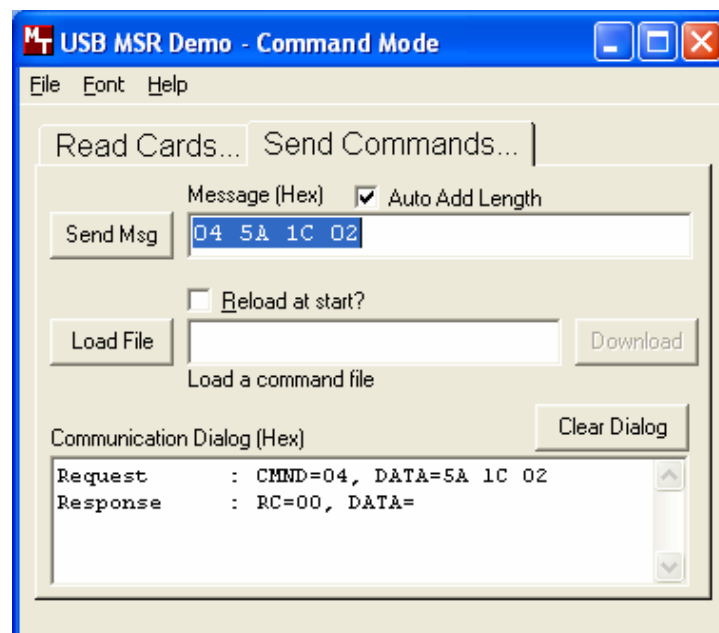
To remap a United States keyboard map to a German keyboard map, you need to determine what the differences are:



For example, the German keyboard has a Z in the Y location of the United States Keyboard, and a Y in the Z location of the United States Keyboard. To modify the United States Y key to reflect the Z key for the German keyboard, we must modify the readers key map to map ASCII “Y” (59 hex) to USB usage ID “Z” (1D hex) and key modifier left shift (02 hex) using the 04 Set Key map Item command:



To modify the United States Z key to reflect the Y key for the German keyboard, we must modify the readers key map to map ASCII “Z” (5A hex) to USB usage ID “Y” (1C hex) and key modifier left shift (02 hex) using the 04 Set Key map Item command:

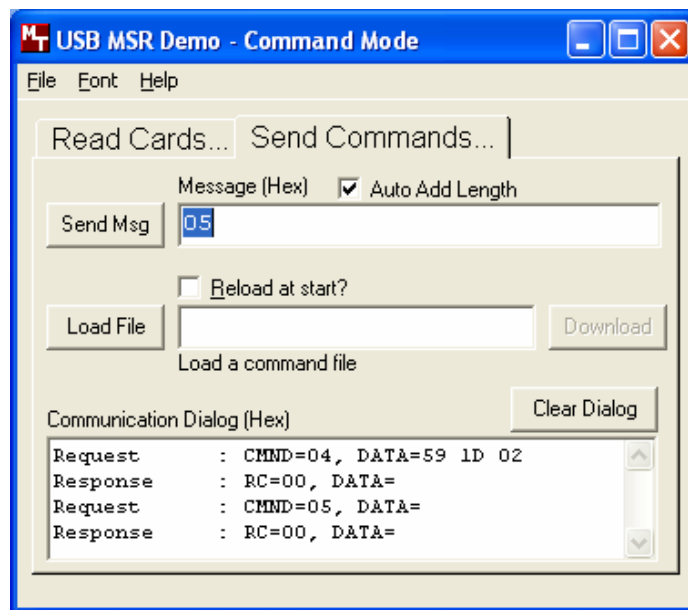


The following are some other examples of the set key map item command for remapping other characters to behave like a German keyboard:

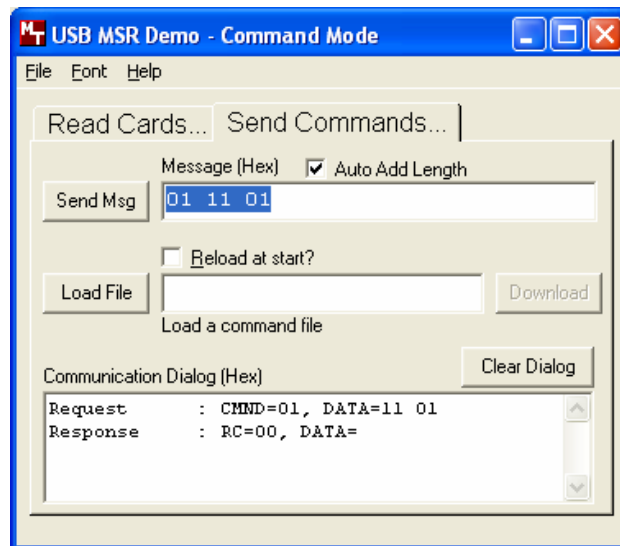
04 79 1D 00 (Makes the reader send a “y” character like a German keyboard would.)

04 5A 1C 00 (Makes the reader send a “z” character like a German keyboard would.)

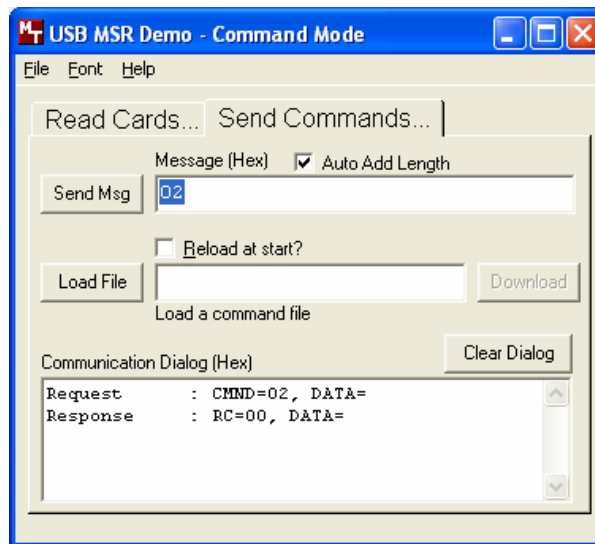
To make these changes still active after a power cycle, the save custom key map item command must be sent: 05



The Active Keymap Property must also be set to custom. The default value is 0 for the United States key map and the value for the custom key map is 1. Send 01 11 01 to set the Keymap property to custom:



You will then need to send the 02 command to cycle power to the MSR.



Click on the “Read Cards” Tab to swipe a card to test.

The MSR has now been remapped manually to a custom keyboard map.