Setting Mobile Device to Mass Storage Mode Using S1 USB Toggle

The S1 USB Toggle application is an executable that allows Windows Mobile 5 and later devices to switch between connecting to PC via ActiveSync /Windows Media Device Center (WMDC) mode and connecting the device’s removable storage card to the PC via Mass Storage Mode. In the latter option, there is no need for ActiveSync or Windows Media Device Center (WMDC) to be installed on the PC. When Mass Storage Mode is initiated on the mobile device via S1 USB Toggle, the application will make the mobile device’s removable storage card appear as a lettered removable storage drive, similar to a USB thumb drive. Users can then copy files using Windows Explorer to/from the Mobile Device’s removable storage card. You cannot access the internal hard drive storage of the mobile device while the device is in this Mass Storage Mode.

You must have a removable storage card (SD, micro-SD, etc) inserted into your device for this functionality to work.

This app is automatically installed onto mobile devices when users install the Service First (S1) Toolbar for ArcPad 10 version 3.20 or later using the S1 Mobile Installer package. The latest version of the S1 Mobile Installer can be downloaded from here:


Configuring the Application

To start the application on the mobile device, go to Start Menu - > Programs - > S1 USB Toggle.

![Programs Menu](image)

By default, the application is set to keep the device in ActiveSync or WMDC mode. Users will want to have their devices set to this mode whenever they need to re-install software onto the device, or if they
need to copy data to/from the device’s internal storage (main memory). You can tell which mode you are in by noting which button is greyed out (below we are currently in ActiveSync/WMDC Mode). If you have not given your device a unique name, you may need to tap Change Device Name and enter a name for the device. This can be whatever name works best for you, but avoid the use of spaces in the name. Tap Submit to save the name of the device. If you are trying to put a device into USB Mass Storage Mode and are requested to supply a name for your device, you will need to re-initiate option to enter USB Mass Storage Mode after successfully submitting the device’s name.

Screen capture of where the "Change Device Name" button is located.

**Enabling Mass Storage Mode**

When the device is switched to Mass Storage Mode, the device will no longer connect to the PC via ActiveSync or WMDC. Instead when the device is plugged into the PC, its removable storage card will appear as lettered drive in Windows Explorer.

Prior to enabling this functionality, make sure that none of the files on the removable storage card are being used by applications on the mobile device (like open data in ArcPad or TerraSync). To enable Mass
Storage Mode functionality, tap USB Mass Storage Mode.

Depending on the vintage of your device, it may need to perform a soft reset in order to activate Mass Storage Mode, so if you receive a message about restarting, tap ok. Once enabled, you should be able to open Windows Explorer (or My Computer) and see your device’s removable storage area when connected via USB cable. If your device does not automatically appear, try unplugging the device from the cable and then reconnecting.
If you browse the contents of the device’s removable storage in Windows Explorer, you will see an number of system generated files, do NOT delete these files:

![Image of Windows Explorer window showing system generated files]

**Returning to ActiveSync/WMDC Mode**

To switch back to ActiveSync or WMDC mode, simply return to the S1 USB Toggle application on the mobile device and tap **ActiveSync/WMDC Mode**. The device may need to automatically soft reset in order to switch back to this mode. You may need to unplug and plug back in the device in order for ActiveSync/WMDC to recognize the device.

**Currently Supported Devices**

This tool has been tested to work with the following devices:

- Trimble Geo 2005, 2008, 6000 Series
- Trimble Juno SB, SC, SD Series
- Trimble 3B, 3D Series
- Trimble Nomad 800G
- Trimble Recon
- Juniper Archer
- Other WM5 & above Trimble devices may be supported but have not been fully tested

**Troubleshooting**

- **Always makes sure that no files are in use by the mobile device prior to plugging device into PC.** Data corruption can occur if the file is in use by the mobile device, but it is then taken over by the PC in Mass Storage mode.
- When the device is in Mass Storage Mode and connected to the PC, you will not be able to see or browse the removable storage card from the mobile device itself. This is because the card is in use by the PC. When you disconnect the device from the PC, the removable storage card is
once again visible to the mobile device itself. If this does not occur, soft reset the device and the removable card should be available again to the mobile device.

- Do not remove the removable storage card from the device while the device is plugged into PC via Mass Storage Mode. If you do so, the device will not recognize the card when it is plugged back in. To resolve, put card back in device and soft reset the device.
- Do not put device into Mass Storage Mode without a removable card inserted into device. The app will tell you that Mass Storage Mode is not possible without a removable storage card and will remain in ActiveSync Mode.
- You cannot see the hard drive of the mobile device while in Mass Storage Mode. Do not save data to the \My Documents of the mobile device if you intend to use Mass Storage Mode to copy data.
- When toggling settings on older WM5 devices, you may temporarily see a window with some other user settings. Do NOT attempt to change any of these settings. The only settings you can adjust are from within the main S1 USB screen: Mass Storage Mode & ActiveSync/WMDC Mode.
- You cannot install applications onto mobile devices while in Mass Storage Mode.
- Once a SD card has been configured to use Mass Storage Mode via S1 USB Toggle application, it is possible to make PC connections to the card when it is connected via SD card reader instead of inside of the mobile device. This might be desirable for field staff who simply want to hand off a card vs. the entire handheld. If you do this, make sure that the card gets put back into the device that it came from. The device name is stored in a folder on the SD card.