

HOW TO SIDE-LOAD BASE MAPS ONTO ANDROID DEVICES

Copying base map or user reference map files from a PC to an Android mobile device for use by the S1 Mobile Mapper application

S1 Mobile Help
2/26/2021

Overview

This document provides instructions on how to copy multi-scale Base Map products on to an Android mobile device for use with the S1 Mobile Mapper application.

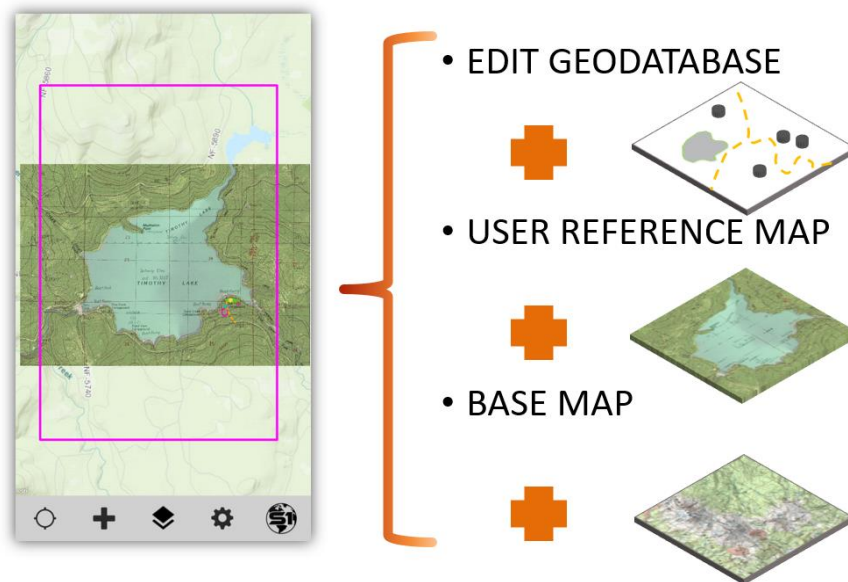
Base Maps often are large files that take considerable time and require adequate network speed to download over a cellular (4G) or WiFi network. For this reason, it may be faster to copy the Base Map from a networked PC to a connected mobile device via USB cable; this process is called side-loading.

Base Maps in the S1 Mobile Mapper Application

The S1 Mobile Mapper application for Android supports two kinds of maps: Base Maps and User Reference Maps.

The Base Map is the foundational map of the application; typically produced by an authoritative map source, like ESRI or a federal agency. The base map must be a Tile Package (.tpk) file, while the suggested, though not required, coordinate source of the file is WGS 1984 Web Mercator (auxiliary sphere).

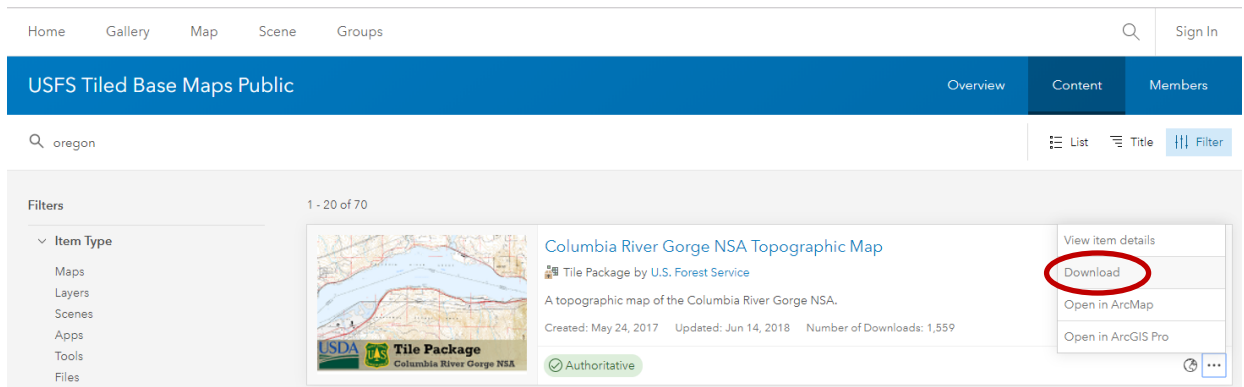
A User Ref Map is a supplement to the underlying base map. The area the map covers may be smaller than the Base Map, and can include content such as LiDAR or other reference data. The User Ref must be a GeoTIFF (.tif) or Tile Package (.tpk).



Agency Basemaps

The US Forest Service (USFS) and Bureau of Land Management (BLM) both have authoritative Agency Base Maps that include reference data such as roads, rivers and streams, and land status information. These base maps are available for download from two publically available ArcGIS Online (AGOL) groups.

- USFS Agency Basemaps:
<https://usfs.maps.arcgis.com/home/group.html?id=1c9d890b197c4b2f9d72604b77ea43cb>
- BLM Agency Basemaps:
<https://blm-egis.maps.arcgis.com/home/group.html?id=a809e5714093455d8a7370bd08ffad4e>



The screenshot shows the ArcGIS Online interface for the 'USFS Tiled Base Maps Public' group. The search results for 'oregon' are displayed, showing a map titled 'Columbia River Gorge NSA Topographic Map'. The map is a topographic map of the Columbia River Gorge NSA, created on May 24, 2017, and updated on Jun 14, 2018. It has 1,559 downloads. The map is a Tile Package by U.S. Forest Service. The context menu is open, and the 'Download' button is circled in red.

Instructions on Side-Loading Maps

Below are two sets of instructions, one on where to copy the Base Maps onto the mobile device and the other is where to copy User Ref Maps.

Assumptions:

- Have an Android mobile device
- S1 Mobile Mapper application installed on mobile device
- USB or USB-C cable to connect mobile device to computer
- Base Map and/or User Ref Map saved on desktop computer

Base Map to Mobile Device

Follow the instructions below to copy a Tile Package (.tpk) file to the mobile device for use as a base map.

1. On the desktop computer, open the **File Explorer** app.



2. **Navigate** to the file location where the Base Map to be copied to the mobile device is saved.

3. **Select** the base map file(s) that will be side-loaded onto the mobile device. Right click and select **Copy**.
4. Connect the mobile device to the computer via USB or USB-C cable.
5. Using **File Explorer**, navigate to one of the following file locations on the mobile device:

Mobile Device with SD Card:

This PC\[Device Name]\Card\Android\data\gov.s1.s1mobile\Reference_Data

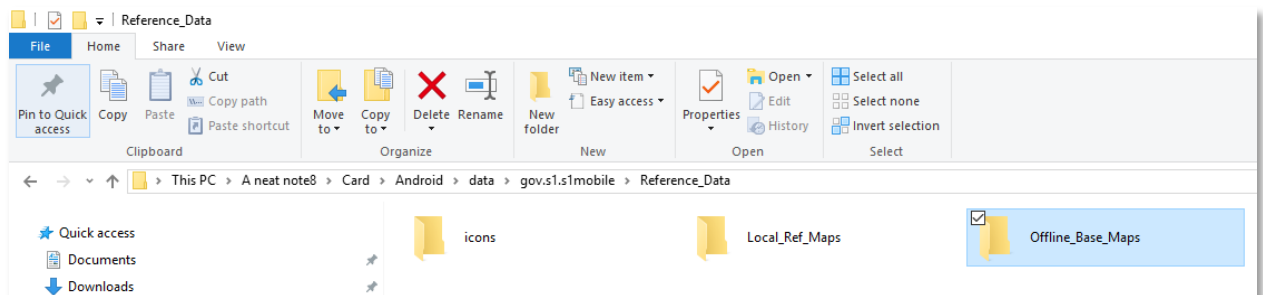
Mobile device without SD Card:

This PC\[Device Name]\Tablet\Android\data\gov.s1.s1mobile\Reference_Data

For Devices running Android 11 and greater:

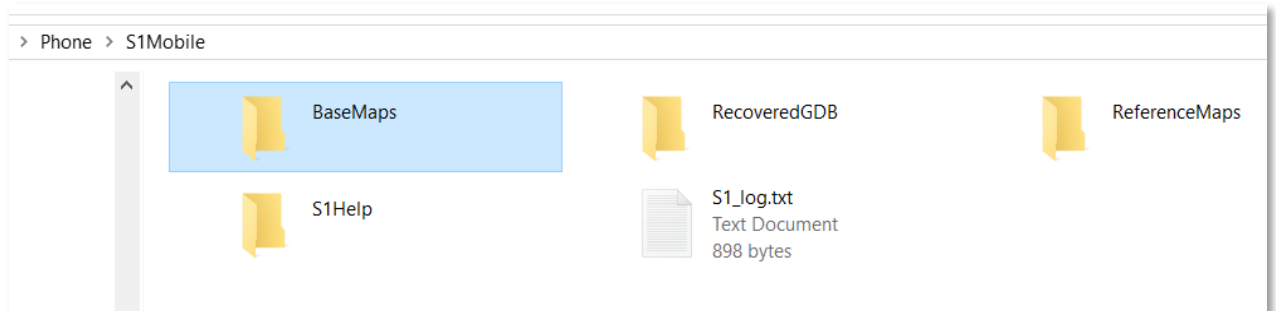
This PC\[YourDeviceName]\Phone\S1Mobile\BaseMaps

6. Double click on the folder **Offline_Base_Maps** to open it. This is the directory where all downloaded and side loaded Offline Base Maps must reside.



For Devices running Android 11 and greater:

Double click on the **BaseMaps** to open it.



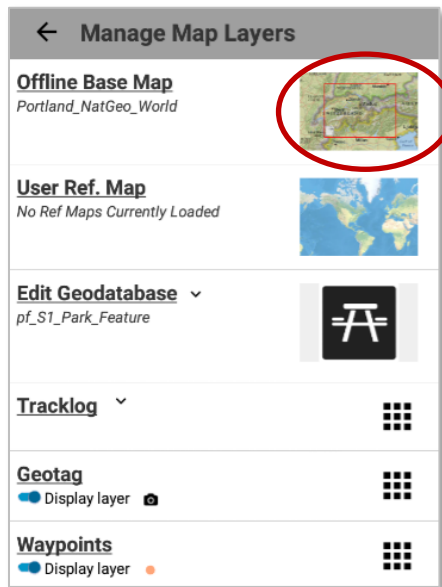
7. Right-click in the file window where the Base Maps will be saved, and select **Paste**.

8. On the mobile device, open S1 Mobile Mapper app.

9. Tap **Manage Map Layers** button



10. Tap on the thumbnail next to **Offline Base Map**



11. Tap the base map side-loaded to the device to display it in the map view.

User Ref Map to Mobile Device

Follow the instructions below to copy a GeoTIFF (.tif) or Tile Package (.tpk) file to the mobile device for use as a User Reference map.

1. On the desktop computer, open the **File Explorer** app.



2. **Navigate** to the file location where the TPK or GeoTIFF reside.
3. **Select** the Use Ref map(s) that will be side-loaded to the mobile device. Right click and select **Copy**.
4. Connect the mobile device to the computer via USB or USB-C cable.
5. Using **File Explorer**, navigate to one of the following file locations on the mobile device:

Mobile Device with SD Card:

This PC\[Device Name]\Card\Android\data\gov.s1.s1mobile\Reference_Data

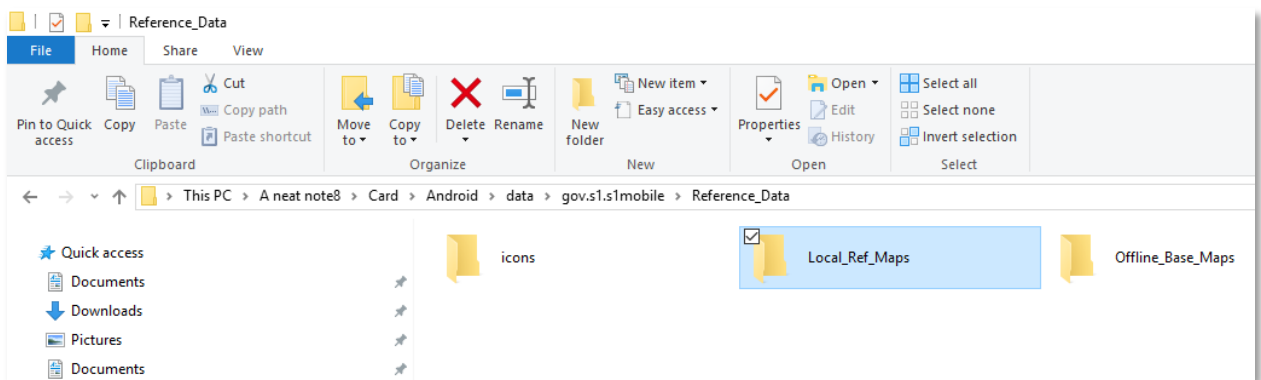
Mobile device without SD Card:

This PC\[Device Name]\[Device Type]\Android\data\gov.s1.s1mobile\Reference_Data

For Devices running Android 11 and greater:

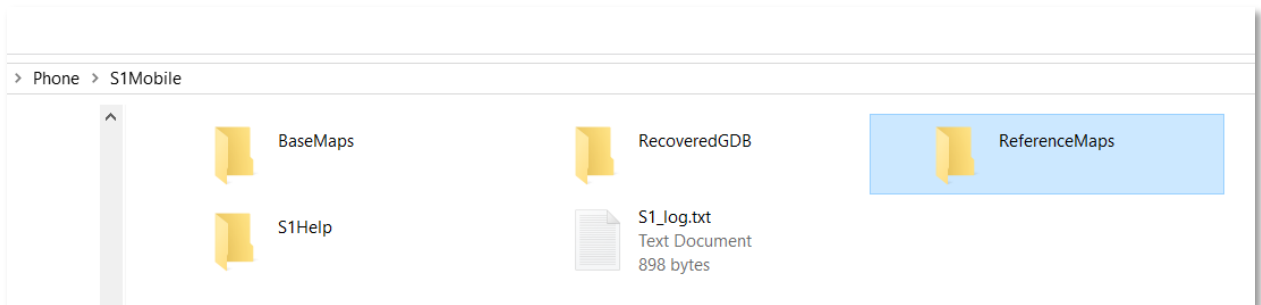
This PC\[YourDeviceName]\Phone\S1Mobile\ReferenceMaps

6. Double click on the **Local_Ref_Maps** folder to open it. This is the directory where all downloaded and side loaded User Reference Maps must reside.



For Devices running Android 11 and greater:

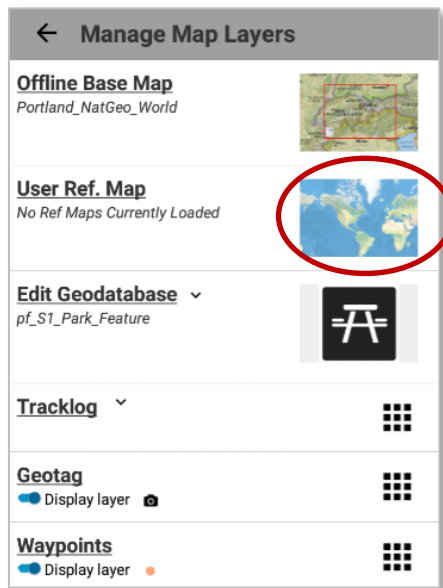
Double click on the **ReferenceMaps** to open it.



7. Right-click in the file window where the Use Ref Maps will be saved, and select **Paste**.
8. On the mobile device, open S1 Mobile Mapper app.
9. Tap **Manage Map Layers** button



10. Tap on the thumbnail next to **User Ref Map**



11. Tap the User Ref Map that was side-loaded to the device to display it in the map view.