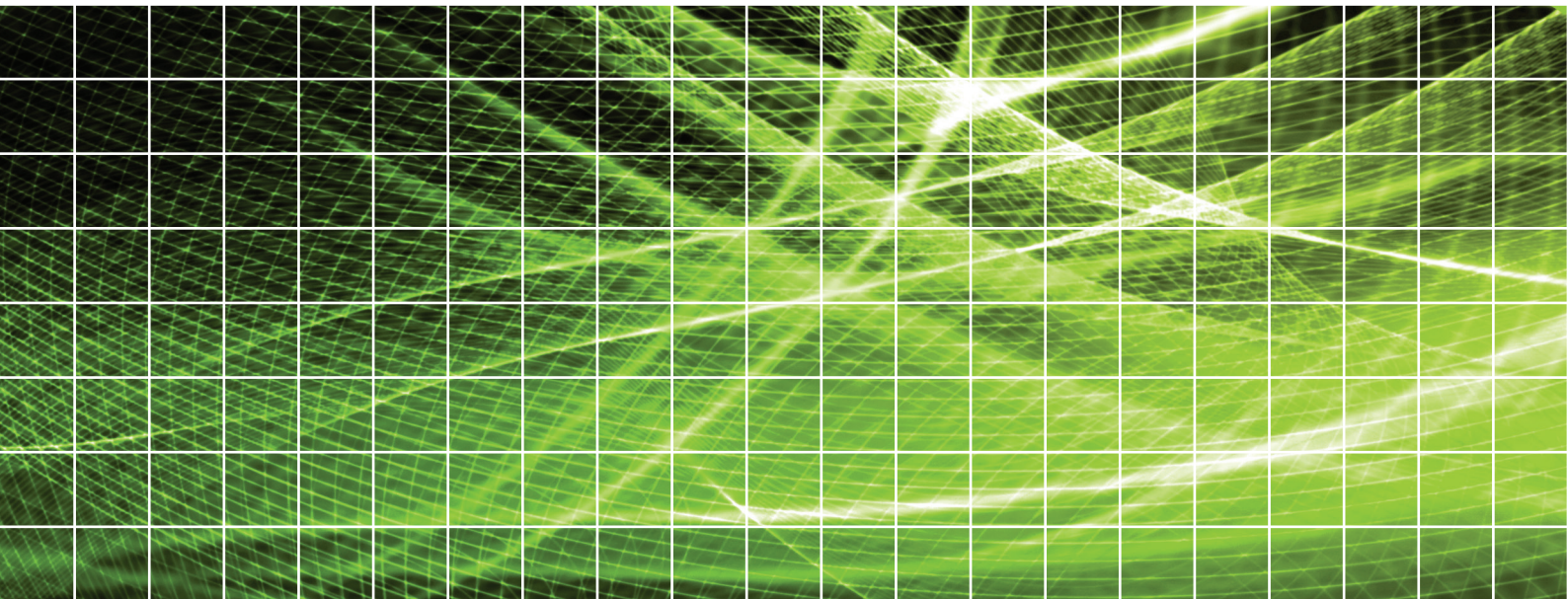# User guide

ArcGIS Mobile

ArcGIS mobile

At version 10, ArcGIS Desktop now comes with a free single user licence for ArcGIS Mobile. This document describes the steps to take to download, install and use the application with ArcGIS 10 Desktop.

1. Downloading ArcGIS Mobile

The ArcGIS Mobile package can be downloaded from the Esri customer care portal (https://customers.esri.com/) using an Esri global ID and a customer token number (usually provided with a software licence). The downloaded file contains an ISO image, which needs to be mounted using an ISO Image mounter program (e.g., Virtual CloneDrive). Alternatively, use an ISO Image extractor program to extract the files within an ISO image file outside to disk. (e.g., 7-Zip, IsoBuster)

In addition you can create a backup copy of the software on physical media by using a DVD authoring program and DVD burner to burn the ISO image on DVD.

2. Installing ArcGIS Mobile

The ArcGIS Mobile installation requires the user to be a system administrator or have elevated privileges in a deployment environment. The setup dialogue allows you to choose a predetermined set of installation features or choose only the specific features required for your installation:

- The ArcGIS Mobile Project Centre: used to create and manage a catalogue of mobile projects for deployment and use in the field

- The Windows Application: an out of the box task-driven Windows touch application for laptops and tablets. This can be directly installed on to your mobile device as you would do on a desktop.

- The Windows Mobile Application: an out of the box task-driven Windows touch application but designed specifically for smaller handheld devices (a brief note on installing this on a mobile device is given in section 3 below)

- The Geoprocessing Tools (Mobile tools): installed in to ArcGIS Desktop allow you to create Mobile maps and export them to a device, and also check in

any data captured by the mobile device back into the desktop. The Mobile tools can be found in ArcToolbox. If not, once installed they can be added by right clicking on the toolbox menu and adding it from System toolboxes. Note that The Geoprocessing Tools feature requires ArcGIS Desktop 10 to be installed. If you install the Geoprocessing Tools feature before installing ArcGIS Desktop 10, the toolbox will not be available. In this case, after you have installed ArcGIS Desktop 10, you will need to repair your ArcGIS Mobile installation. You can repair your installation by relaunching the ArcGIS Mobile setup.exe or by launching the setup again using the Control Panel's Add/Remove Programs. Select the Repair option to reinstall.

- The ArcGIS Mobile SDK: a suite of .NET mobile GIS components to allow developers to build custom mobile applications. For more information see the ArcGIS Resource Centre. Note that if you do not have Visual Studio 2008 installed this will not be available as an option in the dialogue.

3. Installing ArcGIS Mobile on a Handheld Mobile Device

Before using an ArcGIS mobile project on a handheld device, the Windows Mobile Application needs to be installed. In the install path on your desktop (usually C:\Program Files\ArcGIS\ Mobile10.0\Install), you should find a file called ArcGISMobile.CAB. This needs to be copied over to the Mobile device. This can be done in one of 3 ways:

- Using a web browser on your Windows Mobile device
- Using a desktop connection to your Windows Mobile device
- Using a third party deployment system from your mobile vendor that allows for files to be transferred between the desktop and mobile device

Once the CAB files have been copied over, they can be installed by just opening the files. Once these have been installed, you are ready to start using the mobile projects on your handheld mobile device.

4. Using ArcGIS Mobile with ArcGIS Desktop

Preparing your Map and Data for use in ArcGIS Mobile

In order to work with ArcGIS Mobile you need to first create your project map document (.mxd). It is worth remembering that mobile is a very different end user experience from desktop and by following some simple rules you can significantly improve the experience on the mobile device. The following article outlines areas to be aware of:

http://help.arcgis.com/en/arcgismobile/10.0/ help/index.html#/How_to_design_and_ create_mobile_maps_using_ArcGIS_ Desktop/007v00000006000000/

Exporting your ArcGIS Desktop project for use in ArcGIS Mobile

Once the mxd is ready, you can use the "Create Mobile Map" tool in ArcGIS Toolbox to build a map ready for use in the field.
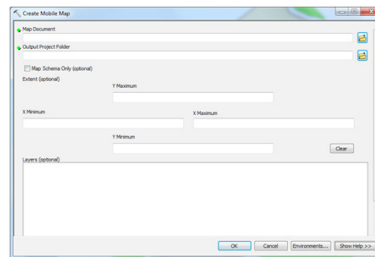

figure 1

This tool is available as an option in the Geoprocessing Mobile toolbox. This tool creates two components necessary for a mobile project:

- An ArcGIS mobile project (.amp)
- A mobile cache, which is essentially a 'snapshot' of the data. This allows a map to be displayed quickly on a mobile device, as well as allowing you to synchronize data with the desktop. (figure 1)

Once you have defined an input map document and selected the output folder and the layers to be cached you should always specify an extent for the cache. This should be just the working area to prevent an unmanageable size of cache being created. You can then run the tool.

Once the Mobile map is created, browse to the location of the output folder, you will see that there is an .amp file and a MobileCache folder. These need to be copied over (within a single top level folder) to the mobile device.

Using the project on the device

On the mobile device, browse to the folder containing the .amp file and cache, then launch the project. Note you have to install the mobile software on the device first (either Windows Mobile Application for handheld devices or Windows Application for laptops/tablets – as explained in the 'Installing ArcGIS Mobile' section above).

This should then automatically open up the map document as you created it on the desktop. Once open, you can proceed to collect features/edit them.

Synchronising back to the desktop

Once finished, copy the folder containing the .amp file and the cache back over to the desktop.

In order to sync the updates on the mobile device with the data on the desktop, we can use the Synchronise Mobile Cache tool. (figure 2)
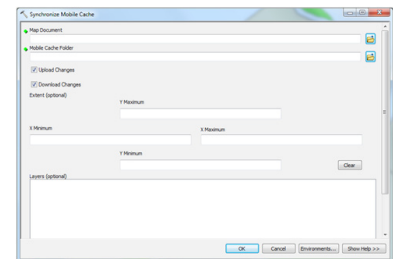

figure 2

This tool will then update the data on the disk to reflect the changes made on the mobile project. We can then open and view the changes made.

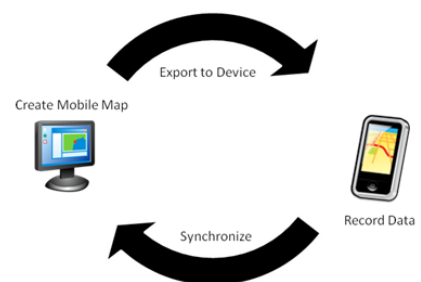This way, we have achieved the workflow as seen in figure 3.

figure 3

5. Further reading

There are a number of excellent resources available from Esri on working with Mobile and ArcGIS. For the best starting points see the following URLs:

http://resources.arcgis.com/content/ arcgis-mobile/10.0/about

http://blogs.esri.com/Dev/ blogs/mobilecentral/