# Getting Started with TDCx

The Tablet Data Collector (TDCx) add-in is designed to efficiently record all trial information at the trial location directly into the actual ARM trial. TDCx is installed with ARM software on a touch-enabled Windows tablet or laptop of your choice.

## Choosing data collection hardware

GDM recommends the following for the minimal requirements to use TDCx. Hardware that does not meet these recommendations may not perform as intended:

- Windows 10 or newer
- 64+ GB internal storage
- 4+ GB RAM

- Touch screen
- Sunlight-readable display/screen protector
- Stylus or digitizer pen

In addition, core TDCx functions require certain hardware features. The following are required in order to support the feature listed in parentheses:

- SD card or low-profile flash drive (backing up data and pictures)
- Rear-facing camera, 6+ megapixel (taking plot pictures)
- Integrated GPS or third-party GPS receiver (capturing GPS coordinates at plot or trial level)

### Other hardware features to consider

There are many other features that computer manufacturers have to offer, and the list is ever-changing. The below features are not required for TDCx to function properly, and may or may not be worth the additional expense, but are simply offered as additional items to consider:

**Ruggedized** units withstand the heat and rough conditions of a field much better than commercial-grade units. These units typically have a sunlight-readable display and can handle extreme temperatures and direct sunlight.

**Screen size** is a factor if planning to use the unit for more than just data collection. A 7-inch screen is often too small to do much besides taking ratings, unless an external monitor is connected when in the office.

The **processor** is another important factor when using the unit for more just data collection. More powerful processors prevent the unit from being sluggish when running more than one program at a time.

**Battery life** is a factor if required to use the unit across a full day.

- See https://gdmdata.com/media/documents/TDCx-recommended-hardware-comparison.pdf for examples of units that fit these guidelines.


## Setting up the TDCx unit

1. The Tablet Data Collector features install with ARM when the TDCx add-in has been purchased for that ARM license. See **Installing ARM** for instructions on downloading ARM software.

   a. To transfer ARM and TDCx to a new unit see Transferring ARM to a New Computer pdf.

2. Once ARM has been installed, be sure to connect a backup device and turn on the ARM backup feature. See Back up and Restore ARM files on our website for a tutorial.

   a. In addition to the standard backup features, TDCx saves data and pictures to the backup as you enter data for each plot, so data can be recovered if the unit is ever damaged while entering assessments.
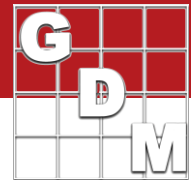
3. There are a couple of Windows Settings that can help improve your experience on a Windows tablet:

   a. **System – Tablet Mode**. Choose "Use desktop mode" instead so ARM dialogs and windows behave the same as on your laptop/desktop (and as in previous Windows versions).

   b. **Calibrate the screen for pen or touch input**. Calibrating the screen trains Windows to your personal touch or stylus pen usage, to improve its accuracy.

## Accessing ARM data on TDCx

There are several options for managing data file access across TDCx and other ARM computer(s).

- If your data is stored on a **network drive**, connect the TDCx computer to the network. Then use the "Available offline" Windows feature so that the trials are available even when not connected to the network.

- **Cloud storage** programs, such as Dropbox or OneDrive, are popular options as well. These programs keep local copies of the files on each computer, and sync changes through the cloud once an internet connection has been restored.

- A **USB sync cable** copies files between two computers by synchronizing the contents of one or more folders on each PC. GDM recommends a cable running the GoSuite software, such as "C2G Sync Cable 39987". See Synchronize Trials using C2G/StarTech Cable (pdf) for a detailed tutorial on using this type of cable.

While all of these options are viable, care must still be taken when dealing with synced files. **It is best to not edit the same trial file on two different computers at the same time.**

Especially when the TDCx is out in the field and does not have an internet connection, you may not be alerted to the fact that someone else is editing that file. Then when the unit is reconnected to the internet, there may be conflicting edits. If this occurs, the conflicting changes need to be copied from the conflicted copy(s) into the main file. The process to resolve conflicting changes depends on the technology used.

## Using Tablet Data Collector features

In ARM, the Tablet Data Collector features are available on the Navigation Bar and from the Tablet menu item. Note that these items only display *when a trial is open*.

- **Tablet Data Entry** optimizes the ARM window and displays the touch keypad for taking assessments.

- **Image Auto-Capture** attaches pictures taken with the tablet to the current plot in ARM. Picture files are renamed according to the options set in Tablet Data Entry mode.

- **Read GPS** records GPS coordinates for the corners of the trial.
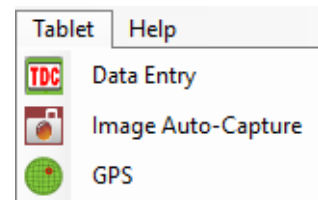
See the Tablet Data Collector Tutorial video series on our website to learn how to use these features.