# CASE Tools 3.8.0 Enhancements/Fixes

SBS-CASE Tools™ 3.8.0 contains the following enhancements and fixes. The main thrust of 3.8.0 is the last (which are documented below) of three releases that are needed to create an Android TIP Driver.   This third and final release will support the replacing of the Windows controls on the products panels with the corresponding Android controls.

## Enhancements
SBS-CASE Tools™

- The user can now choose the type of database that they would like to store the projects data in that resides in the data collection terminal. The choices for the db's type are CODEBASE or SQLite. Depending on the type of data collection device you are using, you may or may not have a choice of the db type. Older versions of products used ONLY CODEBASE. If you choose SQLite, you need not make any changes to the file edit instruction, all SQL instructions will be created by the product to emulate the associated CODEBASE file I-O operation. In a single project it is acceptable to have defined both CODEBASE and SQLite tables in the same project.
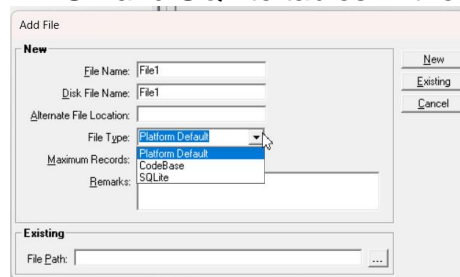

- The user can now choose and Android operating system device as the destination of the data collection terminal. If vendor specific code is required (ex. operate the integrated scanner), it will be provided in the associated TIP Driver. Different TIP Drivers will be provided for different vendors.
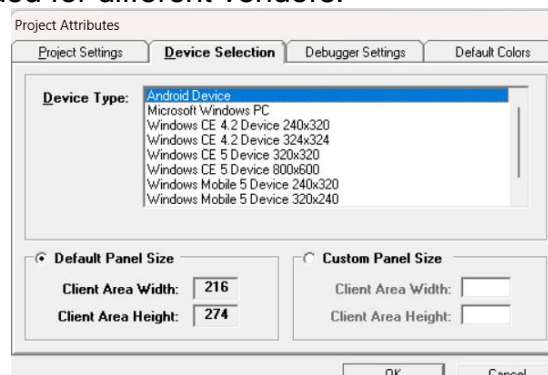
- Android screen presentations are different than Windows presentations, so full use of the proportional options are now available on all widgets that can be defined on a panel.
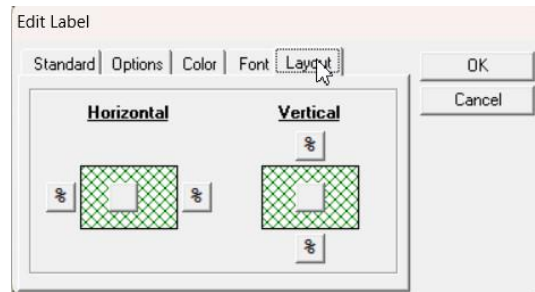
- The programmer can now select a custom panel size for a mobile data collection terminal. Prior to this release, that option was only available on a Windows PC project.

- A new panel option (available on the panel menu pull down as "Convert PANEL_NAME_GOES_HERE to Android) will convert the layout tabs of a Microsoft panel to an Android panel format. Caution should be used when performing the convert because an un-do is not available in this release. The Android widgets are all defined as proportional whereas the Microsoft equivalent device was defined as top / left.
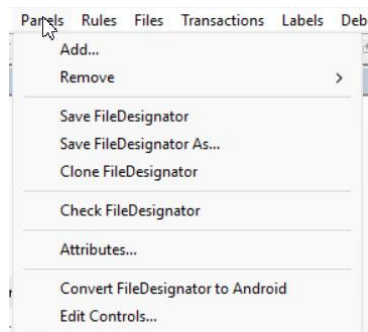
- Native SQLite databases do NOT support indexing of a portion of a column. Therefore if the programmer has selected SQLite as the file repository, partial column indexes will not be supported for that table as they were in prior releases using CODEBASE. You must choose CODEBASE for those files.

- An Android font is available for use with the panel designer and debugger.

- Customers that choose to upgrade to 3.8.x will be allowed to have versions 3.7.x and 3.8.x on the same box.

- The compiler was enhanced to generate Android TIP's.

- SBS-CASE Tools™ was migrated to .Net version 4.0. In prior releases of SBS-CASE Tools™, .Net 3.5 had to be downloaded and installed independently of the SBS-CASE Tools™ install. This version of .Net is usually present on Microsoft Windows version 10 and 11.

- CASE Tools now supports certain event handling gestures for Android devices. You can now have the operator release a panel by swiping up, down, left or right. The operator can also release the panel by depressing the "back" button. All the function keys that were supported in prior releases are now also supported on an Android device.

- The emulator now has support for 12 function keys and all 5 events by use of a simple pull-down menu.
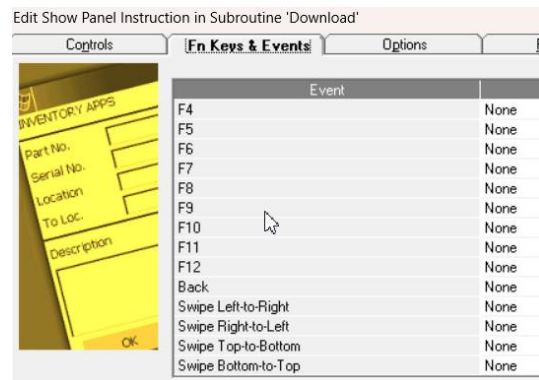

- The groundwork has been created to support the new Loftware/Niceware label printing solution.

- The groundwork has been created to support both an SQLite buffer area as well as a cursor area for each table created. Fopr additional information on this enhancement and for hopw SQLite operates please see https://www.sentinelbusinessservices.com/support-for-sqlite-internal-edit-files/
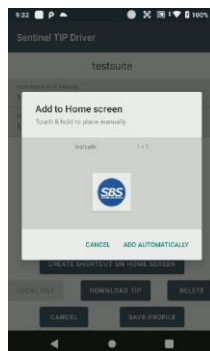
TIP Drivers:
- A new Android TIP driver was written. It makes use of Microsoft's Xamerion product. The boot menu configuration and the interface to the new 3.8.0 TIP driver is entirely different than the prior 3.7.x TIP drivers. To configure the Android TIP Driver pleased refer to https://www.sentinelbusinessservices.com/android-tip-driver-configuration/

- To install the Android TIP driver, follow the instructions found at https://www.sentinelbusinessservices.com/android-tip-driver-installation/

- To use the Android TIP driver interface to configure, download or run TIPS follow the instruction found at https://www.sentinelbusinessservices.com/android-tip-driver-configuration/

- A new Windows PC Tip Driver was created that supports SQLite db's.

- Android devices will ONLY support SQLite db's.

- New Pathfinder interface to support Android functionality

- Multiple application TIPS that are used on the same data collection device no longer require a separate seat for each application. Seats are now allocated by each data collection device regardless of the number of application TIPS that are present on it.

- The TIP running on an Android device will now require a Pathfinder Android seat. A Microsoft device can use either a Microsoft seat or an Android seat.
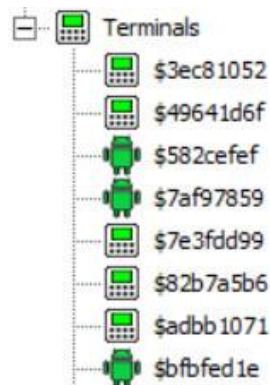
- Support for SLOG (step logging) for TIP driver debugging.

- TIP Driver boot menu can create desktop shortcut if desired.

- The view of text on a panel can be made smaller or larger (text ratio) based upon a configuration parameter.
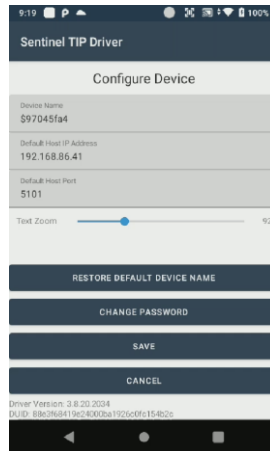
- The Android TIP Driver now supports certain event handling gestures for Android devices. You can now have the operator release a panel by swiping up, down, left or right. The operator can also release the panel by depressing the "back" button. All the function keys that were supported in prior releases are now also supported on Android.

- The TIP Driver boot menu can now point to a startup TIP. This allows the operator to start the TIP application without any user intervention.

Fixes:
SBS-CASE Tools™
- The panel designer would allow a user to have more than 9,999 widgets defined in a single project. This is a ludicrous amount of widgets in a project but none the less, it is still an oversite. If you were to have done this, at execution time it would abend with a Run Time Error.

- The label printing interface would allow the user to enter a printer name of more than 25 characters, but at print time the name was truncated to 25 positions. The product now checks for a maximum of 25 characters for a printer name.

- The label printing interface would allow the user to send more than 3000 characters to the label, but the label would not print properly (truncation could occur). The product now checks for a maximum of 3,000 characters to be sent to the label.

TIP Drivers:
- The closing of a COM port when using the Windows PC TIP driver would raise an error ONLY on the Windows PC TIP Driver. That error is now trapped and the proper response is returned to the operator.