



SMILOG

SOFTWARE FOR MOBILE INTEGRATION IN LOGISTICS

SMIBROWSER 2

Product Launch Kit

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Revision History

0.1		<ul style="list-style-type: none">• Beta Release	Mike Brandys	May , 2020
1.0		<ul style="list-style-type: none">• First Release	Mike Brandys	August 2020
2.0		<ul style="list-style-type: none">• 2nd Major Release	Mike Brandys	August 2023
2,1		<ul style="list-style-type: none">• 2nd Major Release updates	Mike Brandys	February 2026
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New For Release 2.0

- The user can now import and export configuration files
- The user can import JAVA and CSS files
- Export Debug Data
- Improved Scanning from Camera.

You can use the camera to scan into any open field, including the License popup and the password popup. Suspending

- Android dialog popups have been replaced with popups that use the same color and font as session.
- Compliant with current Playstore standards.

The application has been rebuilt to use the latest Android API and Standards.

The goal is to be able to publish this app in the Google Playstore in the future.

This required switching to AndroidX (which unfortunately increases the size of the APK file significantly).

- Support for MDM applications

The application will support setting configuration parameters with MDM products like SOTI and Microsoft INTUNE.

- Fling Bar can now be hidden and will scroll within the view.



New For Release 1.0

- Added Scaling parameters,
SCALE_X, SCALE_Y for SAP Transaction Screens
SCALE for the login Screen (scales the same amount in the X and Y direction)
FONT_SCALE, changes the font size on all screens
- Override Configuration by copying smiBrowser.txt file to DOWNLOADS directory
- Override Java Script file by copying smi_script.js to DOWNLOADS directory
- Override .CSS file by copying smi_style.css to DOWNLOADS directory
- Long Press on EXIT Key during configuration will keep current session alive. Useful for testing various scaling parameters without having to login again.

New For Release 0.5

- Enabled Licensing
- Provide patch for Google Speech Recognizer Bug.
New For Release 0.6

New For Release 0.5

- Add Configuration options which will block the injection of the default CSS and Jscript code.
(Turns app into regular browser that could be used with other hosts)

New For Release 0.4

- Optional Keep Alive Timer added to prevent Session from timing out.
Set this value to the number of minutes before sending a screen reload. If greater than zero the last session will be reloaded if the APP is restarted. Load the Configuration or pressing the RESET button will provide a new session.
- Function Keys removed from Fling Bar by default, can be enabled by SHOW_FKEYS = 1.

Known Issues

- Application only supports English, French, and German Languages
- Speech input limited to English
- No Support for Meta-Tags



Introduction

In order to maintain all information about SMIBROWSER in one place, this manual deals with:

- Product History and Market Requirements
- Pricing
- Functionality
- Design Considerations
- Technical Information
- Release Notes

History and Market Requirements

The SmiBrowser APP was designed for customers that want to run ITS MOBILE Transactions on Android devices, but do not want to make modifications to the SAP system to make the screens fit on the Android device, or fix some of the many issues with formatting the default webpages created by SAP.

It was designed to provide a function Web interface specifically for ITS MOBILE transactions with minimal configuration

It is designed to replace more expensive and are often Hardware Vendor specific Industrial Browsers. (often called IBrowsers). SmiBrowser will be positioned to be approximately half the price of competing Industrial Browsers and will run on any Android device.

It is designed to provide a more “usable” user experience with minimal configuration. It will handle screen scaling and better manage inputting data on devices that do not have a dedicated keyboard.



Selling SmiBrowser

SmiBrowser is designed to provide the same functionality of other Industrial Browsers, but at less cost up front with less cost (effort) to configure and deploy.

Pricing Considerations

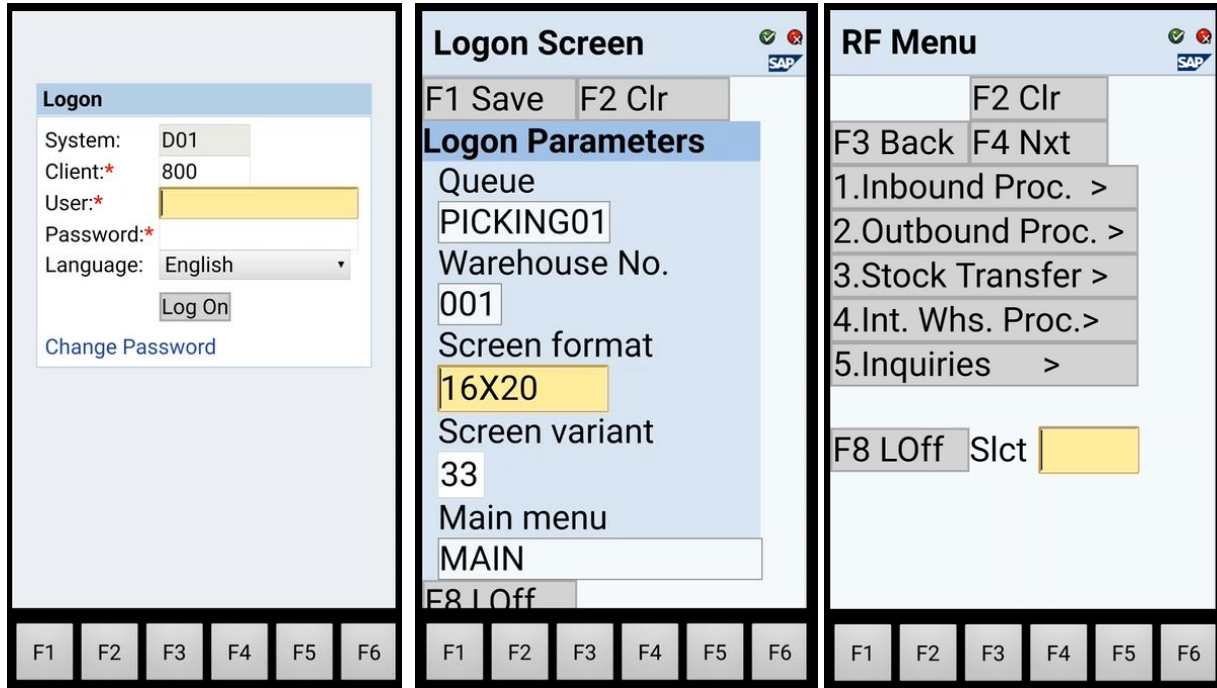
SmiBrowser Licenses can be purchased directly from SMILOG Ltd at \$xxxx per copy.

The software can be installed on any Android device without a license, but it will display a pop-up message indicating the product is unlicensed on started up and after every 100 key strokes.

Limitations of SMIBROWSER

- Requires a WIFI / TCPIP connection. No support for Narrow Band.
- Designed specifically for SAP ITS mobile, not a general purpose Industrial browser

Basic Look and Feel



ITS Mobile transactions are primarily function key driven. Since most Android devices do not include function keys, there is a "button bar" at the bottom of the screen that allows the user to send function key presses. This is a scrollable (Fling style) bar providing buttons for F1-F12 and other buttons for features like "Voice" and "Scan via Camera."

The Function keys can be removed from the button bar leaving only the Scan, Configure and Reset buttons (see SHOW_FKEY parameter)





Many Android devices do not have a fixed Keyboard. Data is often entered via a pop-up keyboard
This keyboard can be opened and closed by doing a 2 finger touch anywhere on the screen
It can also be closed by pressing the Back button.

If the Android Terminal is equipped with a built in scanner, data can be scanned into a field using a “Wedge Reader” application that will convert the barcode to keystrokes. Terminals with built in scanners will likely have a dedicated “scan” button.

If the Android device is equipped with a camera, the camera can be used as a barcode scanner. The built in scanner application can read 1D and 2D barcodes and can also read Text (OCR).

The Scanner shows the view of the camera, if the center of the red “cross hairs” touch the barcode it will be read automatically. If the SCAN button is press and held, the scanning will be suspended until the SCAN button is released, this allows for aiming before scanning.



Screen shot of scanning app

Speech Recognition

SmiBrowser will accept speech input using Google’s speech recognition. This is activated by pressing the “Voice” button on the “button bar”. This will cause the edges of the screen to go yellow. Spoken Data will be processed continuously until the Speech Recognizer times-out, or the Voice button is pressed again.



The spoken value will be placed in the active field.

It will also accept spoken commands for function key presses,

The user can say "Function 1", to press the F1 key,

The user can say "Select" to press the ENTER key.



Installing SmiBrowser

SmiBrowser is not currently available in the Google Play Store

In order to install it on your Android device, you must install it directly from an .APK file (commonly called side loading)

The first step is to allow 3rd party applications to be installed on your Android Device, this is usually turned off by default.

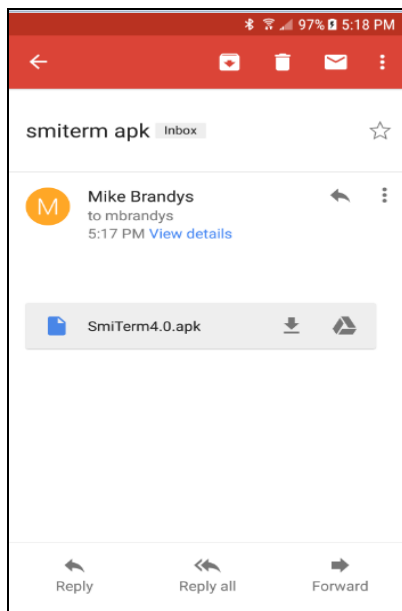
On a standard android O/S, this is done via the SETTINGS, in SECURITY, where you set the “Unknown Sources” option to “ON”.

(On many Samsung phones, it is under LOCK SCREEN AND SECURITY)

Then copy the APK to device, and click on the APK file. This can be done by opening an EMAIL on the device and clicking on the APK file, or using the device’s web browser and downloading the file from the link the SMILOG webpage or from the link below

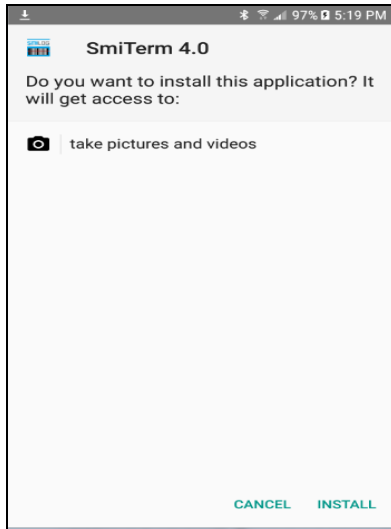
<http://www.smilog.ca/x>

NOTE: Screen below are from SmiTerm, but the installation procedure is the same.

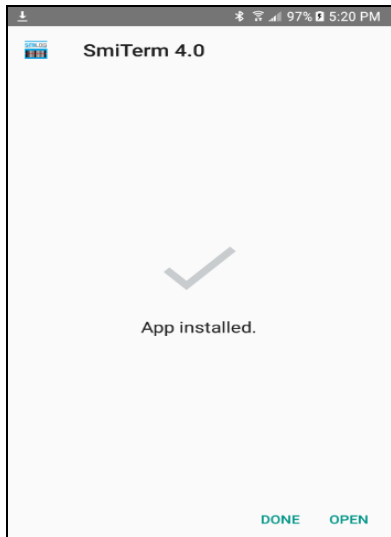




Clicking on the APK will start the installation
(note: same for smiTerm and smiBrowser)



Once installed, open application from the installer
((note: same for smiTerm and smiBrowser, but will vary depending on version of Android))



Or from the Desktop ICON

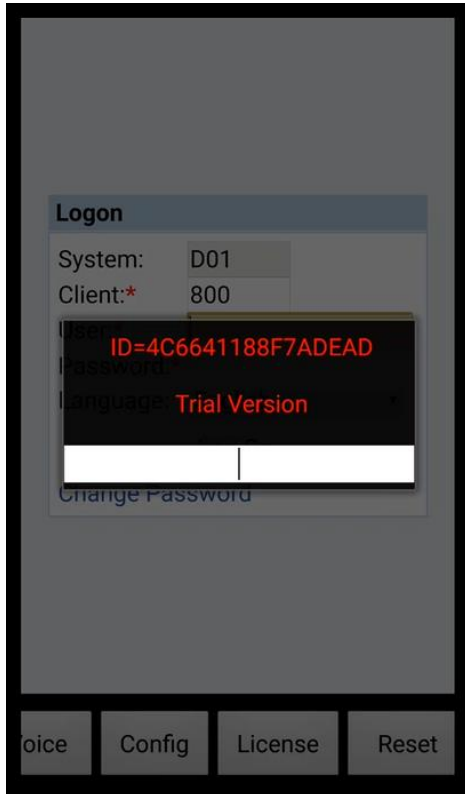




The license key is unique to each terminal, and cannot be moved or reused on a different terminal.

NOTE: both permanent and expiring license keys are available.

To enter a license, Press the “License” Button on the button bar.



To obtain a license key, send proof of purchase to support@smilog.ca

Please include the Device ID displayed at the top of the licensing Pop-up message.

License keys can be delivered via the Web. Automatic Licensing is attempted each time the application is started. It will send a request for a key. If the Device ID is recognized by the license server, it will send back a valid key.

License can also be scanned in by creating a code 128 barcode with the following format

(scan prefix)<(license key)>

Example: ~<64D5434CDD8DC1C9> (REMOVED IN VERSION 2)

NOTE: only a valid scanned license keys will be installed. If an invalid key is scanned it will not overwrite the existing key.



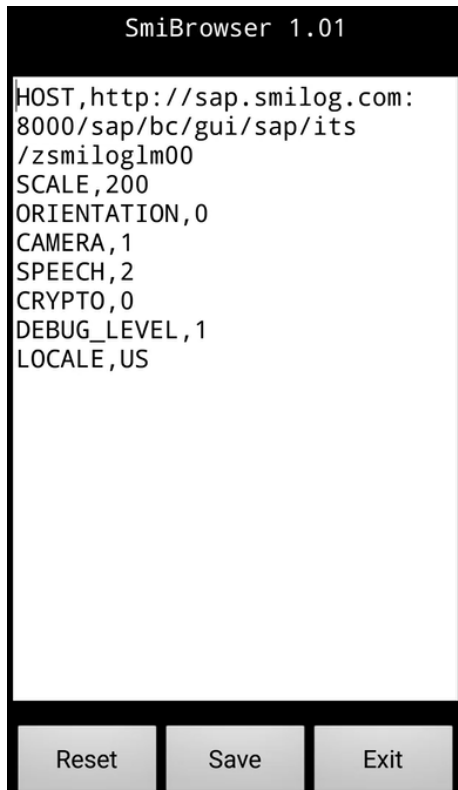
Configuring SmiBrowser

SmiBrowser is configured by editing a comma delimited configuration file.

The contents of this file could be scanned in using a single 2D barcode.

The configuration file is edited by pressing the "Config" button, on the "button bar, The following screen will appear,

NOTE: There have been significant changes in the number of parameters available. Not all parameters are included in the default (Reset) configuration. If a parameter is not included in the view below, the default value is used.



Each of the configuration parameters is explained below:

Host connection address:

HOST, <value>

Where <value> is the URL for the ITS Mobile System..

Default:



Scale Login Screen a percentage

SCALE, <value>

Where <value> is the percentage to scale the TEXT of original ITS mobile Screen

Default: 100

NOTE: SCALE,0 will attempt to autoscale and cause parameters SCALE_X and SCALE_Y to be ignored.

Scale Transaction Screens percentage in Horizontal direction (X)

SCALE_X, <value>

Where <value> is the percentage the TS mobile Screen in the X directions

Default: 100

Scale Transaction Screens percentage in Vertical direction (Y)

SCALE_Y, <value>

Where <value> is the percentage the TS mobile Screen in the Y directions

Default: 100

Scale Text a percentage

FONT_SCALE, <value>

Where <value> is the percentage to scale the TEXT of ITS mobile Screens

Default: 200

Screen Orientation (removed in 2.19)

ORIENTATION, <value>

Where <value> = 0 Portrait.

<value> = 1 Landscape

<value> = 2 Reverse Portrait (upside down).

<value> = 3 Reverse Landscape (upside down).

Default 0



Enable Camera as Barcode Reader:

CAMERA, <value>

Where <value> = 0 to disable camera as scanner,

<value> = 1 to enable camera as barcode scanner,

<value> = 2 to enable camera as Text scanner, (REMOVED IN VERSION 2)

<value> = 3 to enable camera as barcode and Text scanner, (REMOVED IN VERSION 2)

Default 1 (on)

Enable Speech Features (REMOVE IN VERSION 2)

SPEECH, <value>

Where <value> = 0 to disable TTS and Speech Recognition,

<value> = 1 to enable TTS

<value> = 2 to enable TTS and Speech Recognition

Default 2

Host License: (NEW IN VERSION 2)

HOST_LICENSE, <value>

Where <value> is 16 digit key that is specifically for the decoding the HOST value

Default:

Bar Location (NEW IN VERSION 2)

BAR, <value>

BAR,0 Bar is visible, Bar will scroll with view.

BAR,1 Bar is hidden but can be scrolled into view, Bar will scroll with view.

Default: 0

Show Fkeys (NEW IN VERSION 2.1)

SHOW_FKEYS, <value>

SHOW_FKEYS, 0 no function keys will be displayed

SHOW_FKEYS, 1 to 6, only 6 function keys will be displayed (6 visible keys is the minimum)

SHOW_FKEYS, 6 to 24, number of keys to be displayed.

NOTE: Version 2.1 to supports up to 24 functions keys, to access keys greater than F12, use SHIFT + FKEY, example SHIFT + F1 = F13.





Enable SSL data exchange

CRYPTO, <value>

Where <value> = 0 to enable SSL data exchange

<value> = 1 to enable SSL data exchange, but ignores Certificate, all data will be encrypted.

Default 0

Debug level

DEBUG_LEVEL, <value>

Where <value> = 0 to 10. The higher the number, the more details that are sent to iLog.

Default: 6

Keyboard Only (Disable Popup Keyboard) REMOVED IN VERSION 2

KEYBOARD, <value>

Where <value> = 0 use both

<value> = 1 use physical keyboard only, .

Default: 0

Screen Color Theme

THEME, <value>

Where <value> = 0 use default colors

<value> = 1 use Dark Mode colors

<value> = 2 use TekTerm default colors (black and white)

<value> = 3 use Legacy Green Screen

<value> = 4 use Apple / Mac Colors

Default: 0

Override Device Locale

Locale, <value>

Where <value> = DEVICE uses the devices locale

<value> = US

<value> = DE

<value> = FR

Default: US



Scan Prefix

SCAN_PREFIX <value>:<optional function key>

Where <value> is set to single character that will trigger “scan to configure” and “AIAG barcode parsing”

This can be set to a space character (Blank) to completely disable the scan features

Default: ~ (ascii 126, hex 0x7E)

Optional Function key which will be sent at the end of the scan.

Where <function key> can be 1-12

This can be set to a space character (Blank) to completely disable the scan features

Default: 0 (Function key 0 is the ENTER key)

Example: To send an F1 after the Scan set the value to SCAN_PREFIX,126:1

Auto License Web address

LICENSE_URL <value>

Where <value> address of web service use to automatically deliver license keys”

This can be set to space character (Blank) to completely disable this feature

Default: <http://portal.smilog.ca/myLicense/Service1.svc/json/>

FKEY Fling Bar location

BAR_LOCATION, <value>

Where <value> = 0 bottom of screen

<value> = 1 top of screen

Default: 0

LOCK Configuration

LOCK, <value>

Where <value> is the password, up to 16 characters. Will not prompt for a password when the CONFIG button is pressed if blank.

Default: <blank>



KEEP ALIVE TIMER

KEEP_ALIVE, <value>

Where <value> = 0 No Keep Alive, Web Session will timeout based on SAP Host settings

<value> = x In Minutes, Screen will be refreshed every x Minutes, if a new Screen has not been loaded.

NOTE: data can be lost during screen refresh, but this prevents the user from being logged off

Default: 0

LOAD DEFAULT CSS (remove in 2.19)

LOAD_CSS, <value>

Where <value> = 0 Do not load Default CSS file

<value> = 1 load Default CSS file

<value> = 2 use Imported CSS file

Default: 1

LOAD DEFAULT JSCRIPT (removed in 2.19)

LOAD_JS, <value>

Where <value> = 0 Do not load Default JSCRIPT file

<value> = 1 load Default JSCRIPT file

<value> = 2 use Imported JSCRIPT file

Default: 1

OVERRIDE TITLE

TITLE, <value>

Where <value> = Title on Login Screen

OVERRIDE SYSTEM

TITLE, <value>

Where <value> = System on Login Screen

OVERRIDE CLIENT

TITLE, <value>

Where <value> = Client on Login Screen



SCAN TO CONFIGURE

Any of the configuration parameters can also be scanned in by creating a code 128 barcode with the following format

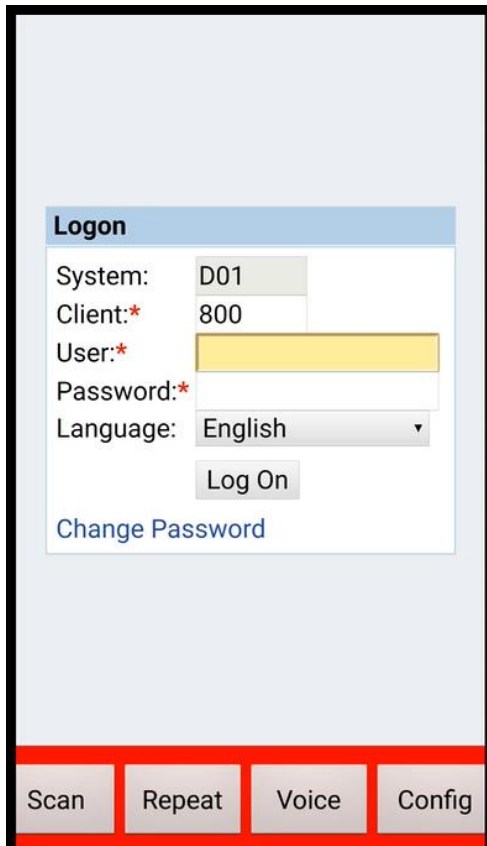
(scan prefix)<(parameter),(value)>

Example: ~<**THEME,1**> will set the screen colors to Dark Mode

The configuration can be reset using the RESET Command

Example: ~<**RESET,0**>

After a configuration barcode is scanned the edges of the screen will become red (as illustrated below)



Multiple barcodes can be scanned, but will not take effect until the WRITE command is scanned.

Example: ~<**WRITE,0**>



Or the changes can be cancelled using the CANCEL command, or by restart the application, or pressing the CONFIG button.

Example: **~<CANCEL,0>**

Once the WRITE Command is scanned the application is restarted.

Scan to Configure” supports 2D barcodes (CLONE)

The Scan to configure option scan be used to scan in the entire configuration using a 2D barcode.

The following barcode will load the entire configuration.

```
~<CLONE,HOST,portal.smilog.ca  
ID,11  
ROWS,10  
COLUMNS,26  
UPPERCASE,0  
CAMERA,1  
DEBUG_LEVEL,0  
THEME,0  
LOCALE,US  
ORIENTATION,0  
FULL_SCREEN,0>
```

This must be followed by the write barcode before it will be loaded into the configuration.

~<WRITE,0>

Appendixes

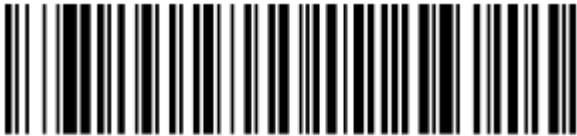
Appendix A – Scan To Configure Barcodes Samples



~<THEME,1>



~<WRITE,0>



~<RESET,0>



~<CLEAR,0>

Generated using:

<https://barcode.tec-it.com/en/Code128>



Appendix B – Version 2 Configuration

DISCONTINUED IN VERSION 2

SPEECH SPEECH RECOGNITION
PRINTER PRINTER PASS PORTS
CAMERA,2 & 3 OCR (OPTICAL CHARACTER RECOGNITION) WITH CAMERA 9

Scan to Configure format for importing Licenses.

Override Configuration by copying smiBrowser.txt file to DOWNLOADS directory

Override Java Script file by copying smi_script.js to DOWNLOADS directory

NEW IN VERSION 2

Host License:

HOST_LICENSE, <value>

Where <value> is 16 digit key that is specifically for the decoding the HOST value

Default:

Bar Location

BAR, <value>

BAR,0 Bar is visible, Bar will scroll with view.

BAR,1 Bar is hidden but can be scrolled into view, Bar will scroll with view.

Default: 0