Update History for HTBasic Versions 10 and 21

21.1.017 5/31/24

- The fix made in release 21.1.016 to enable printing to a virtual LPT port using ISC 26 in Windows 11 caused a page eject to occur after each OUTPUT statement on some printers. This has been fixed.

21.1.016 4/18/24

- The BuilderPlus Combo Dialog Dropdown List was not always visible on Windows 10. This has been fixed and now shows correctly.
- Added the ability to programmatically view and change the processor affinity. Use PRINT SYSTEM$("PROCESSOR AFFINITY") to return the current processor affinity mask value. To set the processor affinity, use CONFIGURE SYSTEM("PROCESSOR AFFINITY;mask_value" where mask value is a decimal number whose binary equivalent is a bit mask for selecting processor cores. For example, to select processors 3 and 1, use a decimal value of 5 (binary '0101'). To set the processor affinity to just processor 3, you would use a decimal value of 4 (binary '0100', where the third bit indicates processor 3).
- Fixed an issue where printing to a virtual LPT port using ISC 26 was not working in Windows 11.
- A fix made in release 21.1.013 around reading data from a file into a string that was dimensioned one larger than the data, introduced an issue where in rare cases, COM memory could become corrupted. This has now been resolved.

21.1.015 9/27/23

- Fixed a case where AutoSave Values in the Registry could become corrupted. When opening the Options / Run Environment for the first time, AutoSave Registry values are created using Defaults in the Registry. However, the AutoSave values were not being read from the Registry until clicking on the Autosave Tab. So, once the AutoSave tab has been accessed at least once, going back into the Options / Run Environment, and closing again, caused the

AutoSave Registry to be written using values that were not initially read as the defaults from the registry. So, they were simply whatever was in the memory location at the time, thus corrupting the registry. This was fixed by correctly initializing the variables and then reading them from the Registry upon opening the Options / Run Environment dialog.

- Refactored the StripChart and XYGraph Widgets to correctly display TimeDate NumberFormat options Clock24 and Clock12. These formats were missed when updating HTBasic to .net.
- Fixed a memory leak edge case where changing the "Font" setting on widgets up to 10,000 times in one session would cause a crash.
- Added the ability to pass empty strings by value in DLLs.
- Fixed a problem with Save As... when a user clicked on the existing name of the program to edit and increment a version suffix, clicking Save would insert the original name and warn that it was about to overwrite the original program. This now correctly saves the updated version of the program name.

21.1.013 3/26/23

- Fixed issue where passing a single character string *by Reference* to a DLL did not correctly pass the character. (This case was missed in the previous pass by value fix in .012)
- Fixed case where reading data from a file into a string whose DIMensioned size is one larger than the data to be read results in the first character of the EOL (i.e. a CR) being returned as part of the data since the max string length was reached before the full EOL (a 2-char CR/LF) was detected.
- Refactored the Device Verification Error Handling to provide more accurate messaging if unable to communicate with the device.

21.1.012 11/5/22

- Updated development toolset to Visual Studio 2022
- Resolved the issue with GESCAPE CRT,50 not correctly hiding the menu bar.
- Fixed issue where passing a *single character string by Value* to a DLL did not correctly pass the character.
- Added support for a VISA driver.
- Refactored the List View portion of the Device Selection Dialog to more clearly show interfaces and devices detected.
- Fixed some edge case crashes with the refactored Device Selection Dialog
- Fixed "On Timeout" with the VISA driver.

21.1.011 5/7/22

- Changed startup Memory size to 1024MB and set as default with automatic fallback based on available memory. This setting in the Options menu has therefore been removed.
- Fixed a case where when adding a variable to the watch window when another variable in a COM block had the maximum name length caused a crash.
- Updated support email address in About dialog to htbsupport@transera.com.

21.1.010 4/2/22

- Fixed the loading of the SERIAL32 driver with long format version numbers.
- Implemented another method to properly pass in the timeout value used by the LXI driver.
- Fixed the look-up of two-keyword Help indexes when pressing F1.
- Fixed some broken links in the Help file index.

21.1.009 2/17/22

- Fixed an issue where the ".prg" and ".bas" file types were not getting registered correctly to HTBasic 2021.

21.1.008 2/6/22

- The Find dialog's "Find What" field no longer randomly shows invalid characters when first invoked.
- The LXI driver's timeout value, which by default is set at 2-seconds, can now be set by Properties in the Device Setup dialog or by a parameter in the Load Bin statement. So, devices that take longer to respond will no longer time-out.
- The HTBasic Reset Utility (in the install folder) will now correctly show HTBasic Versions 2021 and newer.
- The Help File window no longer stays on top when the HTBasic edit/program window has the focus.
- The Major.Minor.Maintenance version numbering (yy.n.mmm) now shows the third Maintenance number (mmm) as a sequential release number instead of Day-of-Year since the Major number (yy) will indicate the year the major version was ***first released*** rather than the ***current release*** year. The Minor number (n) still indicates a more significant release than Maintenance but not as significant as a Major release.

21.1.338 (007) 12/4/21

- Fixed an issue where when a widget was set as a Transient widget, you could not access the

system menu or click on any control on the dialog.

21.1.329 (006) 11/25/21

- Added a new attribute setting "ACTIVATE NEWEST":0|[1]" to the BPlus ASSIGN @Panel TO WIDGET "PANEL";SET(attributes) statement to control whether the latest control added to a panel widget is activated or not. This is to fix alignment problems that occur under certain circumstances when setting the panel's SCROLL attributes prior to setting the panel VISIBLE.

21.1.294 (005) 10/21/21

- Max Memory increased to 4096 MB to allow setting of initial startup memory higher than 256 (even though default had been increased to 512).

21.1.290 (004) 10/17/221

- Changed executable name from HTBasic.exe back to HTBWin.exe for compatibility with older existing customer programs with CSUBs that referenced HTBwin.exe directly.

21.1.271 (003) 9/28/21

- The yyyy.mmdd date-code format used for the version number has been changed to yy.n.doy where "yy" is a 2-digit year, "n" is the minor release number, and "doy" is a 3-digit day-of-year. This was necessary after discovering that the field width for storing the major version number (i.e., "2021") in binary program file headers was set at 2 characters and overwriting it with 4 characters caused HTB to crash when attempting to LOAD a STOREd program. It was further discovered that the 4-digit mmdd (month/day) field width caused problems when loading the GPIBNI and HPIBS drivers.

21.1.268 (002) 9/25/21

- GESCAPE CRT,50 issue fixed.

2021.0827 (001) 8/27/21

- Changed versioning to yyyy.mmdd date-code to track release dates more easily.

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2021 (000) 7/10/21 – **First Release of HTBasic 2021**

FEATURES:

- A new LXI Visa Device Driver has been added.
- Auto-discovery of LXI Devices that implement ZeroConf.
- Added support for verifying communication with LXI and Visa Devices.
- New "Device Driver Selection" dialog created to better support adding device drivers.
- Added "HTBSelectDirectory" DLL to the DLL Toolkit.
- Installer updated to include all necessary Microsoft .NET libraries, so an internet connection is not required to install HTBasic.
- A sample AUTOST program is no longer loaded by default. Instead, two sample AUTOST programs, one simple and one interactive, have been added to the Example programs folder.
- BPLUS now loaded as part of core, so LOAD SUB "BPLUS" statements will be ignored.
- BPLUS functionality has been relabeled Builder+ in documentation.
- Increased the default startup working memory size to 512 MB.
- The following menu labels have been updated for improved clarity:
  - "Change MSI on Open" now says "Change MSI Folder Path on Open".
  - "Set Indent" now says "Indent Settings".
  - "Indent All" now says "Indent".
  - "Change MSI..." now says "Change MSI Folder Path...".
  - "BPlus Screen Builder" now says "Screen Builder".
  - "Increment Column" (in the Indent Dialog) now says "Indent Level".
- Removed the "Renumber" menu item (REN can be invoked from command line).
- Added website address to the about dialog.
- Updated the License Agreement and added a new Privacy Statement.

FIXES:

- Fixed an intermittent issue where the initial Font in the HTBasic Editor was not the correct "fixed width" font.
- Attempting to Load BPLUS from the HTBasic Editor Command Line no longer causes HTBasic to shut down.
- Changed main executable from HTBwin.exe to HTBasic.exe for more consistency with the product name.

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10.1.0

FEATURES:
1. New "LinkLabel" widget for creating hyperlinks to a web page.
2. New "WebBrowser" widget for an embedded web browser.
3. New "DateTimePicker" widget with date and time field picking.
4. Now supports Windows 10 Operating System.

FIXES:
1. XYGraph Trace Lines above 8 now correctly show proper color and line type.
2. Added Localization support for European decimal separator "," in place of ".".
3. Trace Visible showed all traces when none should be shown.
4. Change MSI on open checkbox was missing in the FileOpen Dialog box. The FileOpen dialog has been changed to the old style to allow custom controls.
5. Listbox, Radio Button, and Check Button DLLs have been recompiled after changing them to link to MFC Statically.
6. Resolved the Fontsize error in Screen Builder.
7. "Run Program" menu item for Runtime Builds to call OnMenuRun.
8. STRING widget was modified to support replace mode.
9. Several issues were fixed in the Numeric Compiler.
10. The Screen Builder Closeable Error was fixed.
11. Focus issues with child widgets have been fixed.
12. Label Widget focus issue was fixed.
13. The Shrinking Panel Widget was fixed.

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10.0.3

FIXES:
1. Additional support was added for International Characters.
2. The Label Widget now correctly initializes the FOCUS attribute and handles focus correctly.
3. The System Widget *Queued Event* attribute now correctly handles the case when queried where no events are currently in the queue.
4. Removed several invalid attributes from the Printer Widget.

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10.0.2

FIXES:

1. Hovering the Mouse over a Combo Widget no longer uses 100% of processor.
2. The Clock Widget now correctly displays AM/PM instead of Kanji characters on the Japanese version of Windows.
3. Transient Widgets can now be moved outside the bounds of the main HTBasic window.
4. Maximize is now working as it should and fills the entire HTBasic window unless it is a Transient Widget.
5. The colors in HTBasic are now displaying correctly.
6. The HTBasic Reset Utility is now compatible with all standard Windows localizations.
7. In the "Add/Remove Programs" section of the Windows Control Panel the company name under the HTBasic Install is now displayed correctly.
8. Several Focus issues in HTBasic and Basic Plus have been fixed:
9. When pausing a program, the focus is now set back to the main HTBasic window instead of remaining on Basic Plus Widgets and Dialogs.
10. Focus can now be toggled back and forth between 2 Basic Plus Widgets as it should.
11. Keystrokes are now recognized by the main HTBasic Window even when Basic Plus Widgets have the current focus.
12. Umlauts (äöü, ÄÖÜ, ß) are now displayed correctly when used in Screen Builder files.
13. The String Widget Line Number attribute moves rows specified by Line Number into view.
14. The String Widget Scrollbar now displays correctly when setting the Scrollbars attribute to "True".
15. Fixed several issues with the XY Graph widget including the Axis Labels not displaying enough characters, and Number Format not working as it should.
16. The HTBasic icon is now displayed correctly in all standard Windows localizations.
17. Fixed an issue where a radio button would remain selected even if other radio button options were chosen.
18. Adjustments to resolve issues with the layout of several Widgets and Dialogs.
19. The Bitmap Widget now closes the file handle whenever the widget is destroyed.
20. Toolbars are now returned to the correct location after hiding and unhiding them programmatically.
21. The PUSHBUTTON Widget now has a transparent instead of white border. Flickering issues with this Widget have also been resolved.
22. The FOCUS attribute is now supported with the STRING Widget.
23. Printing to LPT ports "2" or higher is now working correctly.
24. Setting global breakpoint using conditions "Greater than or equal to" and "Less than or

equal to" no longer causes HTBasic to crash.

25. When using User-defined system menus in widgets the text is now always visible.
26. Resolved an issue where the Combo box Widget was not functioning as expected.
27. Widgets are no longer temporarily displayed before they are hidden when VISIBLE has been set to 0.
28. Resolved an issue in BPlus where Menus were being hidden by other widgets even when they had correct focus.
29. Toggle buttons are now working as they should.
30. Fixed an issue where HTBasic was "softening" the edges of graphic images and printouts.
31. SYSTEM$ ("SERIAL NUMBER") will now correctly display the serial number used to install HTBasic.   Access to this number is also working as it should.
32. The Bomb Squad examples in the Basic Plus Examples folder are now working.

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10.0

FEATURES:

1. HTBasic has been given a makeover and now has a new modern look and feel. Many improvements have been made to the user interface including new dockable windows, updated toolbars with new icons, updated menus and much more.
2. Support has been added to HTBasic for Microsoft's Windows Vista, Windows 7, and Windows 8.
3. HTBasic Plus has been re-written using new modern dialogs and widgets to provide an updated look and feel as well as better performance and additional functionality.
4. There is a new HTBasic Plus Screen Builder application that allows you to interactively generate a screen using new modern controls and an intuitive interface. This tool allows you to modify the screens appearance, set each controls properties and save the screen for later inclusion in an HTBasic program.
5. The HTBasic help files have been converted to a new format and have been updated to include all new HTBasic features and functions. Sample programs and links have been updated as well as navigation and search capabilities.
6. A new GPIB driver has been written to support Test and Measurement Systems (TAMS) GPIB Interfaces. This driver can be configured and loaded through the HTBasic Device Setup and standard HTBasic I/O commands are used for communication.
7. Two new DLL's have been added to the DLL Toolkit. The HTBMessageBox DLL allows creating custom message boxes using any of the standard message box buttons and icons. The HTBOscope DLL is a dialog that has a graph and several customizable buttons

that can be used to create a simple oscilloscope.

FIXES:
1. Opening a file now correctly switches to the HTBasic Editor. Previously HTBasic would occasionally appear to hang and never switch to edit mode until done so manually by the user.
2. When improper values are used in the WIN-PRINT control register 115 an error is returned. Previously HTBasic would shut down unexpectedly.
3. Error 16 is no longer generated when using REDIM.
4. Doing a DUMP GRAPHICS to a GIF file no longer causes an Out of memory exception. A DUMP GRAPHICS can now be done as many times as required. Previously an error was generated after the 16th time.
5. Memory that was not being cleaned up properly on shutdown of HTBasic is now being cleaned up.