



# extend Interoperability Suite 10.1.1

Release Notes

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# extend Release Notes

These release notes contain information that might not appear in the Help. Read them in their entirety before you install the product.



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# extend System Requirements



**Note:** This product includes software developed by the University of California, Berkeley and its contributors.

## Hardware Requirements

extend software has the following requirements:

### For Windows:

- The amount of disk space needed to install the ACUCOBOL-GT development system is typically less than 35 MB.
- AcuBench® requires at least 20 MB for installation.
- You need an additional 40 MB to install all of the other extend products.
- Use of .NET controls with the runtime and thin client requires .NET Framework 4.0.

### For all other platforms:

- The amount of disk space needed to install all extend products is typically less than 35 MB.

## Supported Operating Systems



**Note:** AcuBench no longer supports Windows XP or Windows Server 2003 (or any Windows platforms that pre-date these). This is because AcuBench utilizes a number of third-party libraries that have ceased to be supported on those platforms.

For this release, platform support has been added for Windows Server 2016.

For a full list of the supported operating systems, check the Product Availability section on the Micro Focus SupportLine Web site: <http://supportline.microfocus.com/prodavail.aspx>.

## Additional Requirements

### General requirements

Linux-based platforms require `glibc` version 2.5 or later.

### AcuServer:

- Each server machine must be networked to UNIX, Linux, or Windows clients with TCP/IP. TCP/IP is not sold or supplied by Micro Focus.
- All servers must have a copy of the AcuServer license management file.
- Windows clients can run any TCP/IP software that uses a `WINSOCK2` compliant `ws2_32.dll`.
- Unless you have an unlimited license for AcuServer, all UNIX servers must run the current version of `acushare`, which is included on the AcuServer distribution media.
- All servers must have a copy of the license file activated by the product installation script. This file is named `acuserve.alc`.
- Client machines must have an ACUCOBOL-GT AcuServer-enabled runtime. All Windows runtimes Version 5.0 and later are AcuServer-enabled. To verify that your UNIX runtime is AcuServer-enabled, type `runchbl -v` in a Command prompt and look for this line.

```
AcuServer client
```

- Servers being accessed by the ACUCOBOL-GT Web runtime must have a multiple-user ACUCOBOL-GT runtime license that accommodates each concurrent user that is anticipated. (If you anticipate 100 concurrent users of the Web runtime, you need a 100-user runtime license on the server in addition to

the AcuServer license file. Alternatively, runtime users can install a local or network floating license for the runtime themselves.

#### AcuBench:

- Intel Pentium III CPU, 300 MHz; Intel Pentium IV, 2 GHz recommended
- 128 MB of RAM recommended
- 120 MB of available hard disk space recommended
- mouse
- 800 x 600 VGA display or better; 1024 x 768 VGA display recommended

#### AcuSQL:

- Your COBOL application must run on a Windows system or a UNIX system supported by Micro Focus. Unless otherwise indicated, the references to Windows in this manual denote supported Windows operating systems. Where necessary, individual versions of those operating systems are referred to by their specific version numbers.
- AcuSQL must be installed with the ACUCOBOL-GT development system on your Windows or UNIX system.
- If using a database other than Microsoft SQL Server, you must have a working ODBC level 2 API connection to your database, including any required networking software support.
- For SQL Server, if running the AcuSQL interface to Microsoft SQL Server, you must have the SQL Server client software from Microsoft. Use the Query Analyzer to see if the SQL Server client software from Microsoft is on your system. For information on opening the Query Analyzer, see the SQL Server client documentation. If the Query Analyzer opens and you are able to connect to the database, the client libraries are most likely all present. Your SQL Server data source may be hosted on one or more of the supported server operating systems.
- If you are running the AcuSQL interface to MySQL, you must have the following software:
  - MySQL 5.0 Database Server Version 5.0.18 or later (Generally Available release). Testing was done with MySQL 5.0.18 Standard.
  - MySQL Connector/ODBC Version 3.51.11 or later (Generally Available release). Testing was done with the `libmyodbc3-3.51.12.so` library. This file is available from <http://dev.mysql.com>.

You can check the version of your server by connecting using `mysql`. The version prints upon connection. For example:

```
[testing ]: mysql
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 29 to server version:
5.0.18-standard
Type 'help;' or '\h' for help. Type '\c' to clear the buffer.
```

Once in MySQL, you can also use the following:

```
mysql> select version();
+-----+
| version() |
+-----+
| 5.0.18-standard |
+-----+
1 row in set (0.09 sec)
```

- If your application accesses DB2 data, IBM's DB2 Connect™ software is recommended. Access to DB2 databases has been tested with DB2 Connect. However, any vendor's properly configured ODBC level 2 API connectivity software should work. Your DB2 data source may be hosted on one (or more) of the supported operating systems.

#### Acu4GL (for ODBC) driver requirements:

Your ODBC driver must include the following functions:

- all Core ODBC driver functions

- the Level 1 function SQLColumns
- the Level 1 function SQLTables

Depending on the method of record locking you choose, your driver may also need to support some of the following function calls:

- SQLSetStmtOption
- SQLSetScrollOptions
- SQLExtendedFetch
- SQLSetPos

See A\_ODBC\_LOCK\_METHOD in the extend online help for more information.

To test the capabilities of your ODBC driver, we have included a driver test program on your Acu4GL for ODBC installation disks. You can also consult your driver documentation to ensure that it meets these requirements.

# Windows Installation

## License Files for Windows

You may request a license file for one or more users. The number of users (user limit) is set in your license agreement with Micro Focus.

When you receive your products, the package includes product codes and product keys for every product you ordered. You must have the product codes and product keys to create the license file.

When you install or update your license file, place it in the appropriate directory for your version of Windows. The location is:

```
C:\ProgramData\Micro Focus\extend\x.x.x\x86\product-license.alc
```

(Where *x.x.x* is the product version number.)



**Note:** This location is new to extend 9.0 and later, and differs from past versions of extend products. See *Appendix C - Changes Affecting Previous Versions* in the *ACUCOBOL-GT Appendices* manual for details.

When you have multiple users or products, you may copy the license file onto each machine containing the corresponding product or place the products and license file on a shared drive. Each product must be able to locate its license file in order to function.



**Note:** The ACUCOBOL-GT Transaction Server runtime license file is named `wrun32.11c`. If you are using other *extend* products, the license files must be concatenated into a special file.

## The Activator Utility

The Activator Utility automates the process of creating a license file.

During installation, select **Install License Activator** on the Installation Settings page to install the Activator Utility (`activator.exe`). It is installed in the `\AcuGT\bin` sub-directory of the installation directory.



**Note:** Always use the version of the Activator supplied with the version of the product you have installed.

To create the required license files during installation, select **Launch License Activator** on the Installation Settings page. This will launch the Activator Utility when the selected products have installed, enabling you to enter the product code and key pairs required to create the license files.

You can also create license files after the installation by running the Activator Utility (`activator.exe`) from the location detailed above or from the Start menu.

During product installation, if the Activator detects the presence of an existing license file, the extension of the existing file is changed before a new license file is created. For example, `runcbl.alc` is renamed `runcbl.al!`. If the Activator is unable to rename the existing license file, it quits with an error message, and no new license file is created. If a license file with the back-up extension already exists, the Activator attempts to overwrite it. If that fails, the Activator quits with an error message and no new license file is created. On Windows platforms, file attributes such as Read Only are also preserved.

# Changing or Updating a Windows License File

If you need to alter your license file information, contact your Micro Focus *extend* representative for updated product code(s) and product key(s). When you receive them, launch the Activator and enter the new information as prompted.



**Note:** If you have copied a license file to a non-default directory, remember to replace that file with a copy of the updated license file.

## Installation on Windows Platforms

The Windows installation requires little interaction; the setup program copies the files into a directory you designate, or `C:\Program Files\Micro Focus\extend x.x.x` (where `x.x.x` is the version number) by default. On 64-bit machines, 32-bit executables are installed to `C:\Program Files (x86)`.

Before you run an installation, you should ensure that you have your product codes and product keys, and the product media to hand. Refer to the appropriate installation instructions below.

Also, you should ensure that you do not have another version of the extend Interoperability Suite referenced in the PATH system environment variable, as having more than one version specified may cause unexpected results.

After the installation is complete, if you have installed both the compiler and runtime, you can begin to compile and execute your COBOL programs. Basic compilation and execution techniques are described in *Compiling Your Programs* and *Running Your Programs*.



**Note:** If you move or delete any `.dll` files that have been installed, your products may not run as expected.

AcuBench and AcuXDBC™ must be installed locally (on the client). Server-side products such as AcuServer™, AcuXDBC™ Server and AcuConnect® are to be installed only on server machines.

## Installation Steps



**Attention:** The installation is supplied in two formats: `.exe` and `.msi`. On the installation CD, the `.exe` is located in the top level folder, and the `.msi` is located in the `msi` folder. If you plan to install Xcentrinity Business Information Server, or start AcuServer or AcuConnect from the installer, you must run the installation with administrator privileges, from an account that is in the Administrator group.

If you install from the CD, it will automatically run the `.exe` version with administrator privileges. If you run the `.msi`, it does not automatically run with administrator privileges. To run the `.msi` with administrator privileges, click **Start**, and in the **Search programs and files** field, type `cmd.exe`, then in the list displayed, right-click **cmd.exe** and select **Run as administrator**: this opens a command prompt with administrator privileges, where you can run the install by typing the full path name of the `.msi` file.

Follow these steps to install your products.

1. Insert the product CD, or use the provided link to download the installation package from the Micro Focus website.

If you are using the CD, it runs the `.exe` version automatically.

2. If the `.exe` version does not start automatically, or you are using the downloaded installation package, do one of the following:
  - Navigate to the CD drive, then double-click the `.exe`.

- Navigate to the location of the downloaded file, then double-click it. (See the above note if you are running the .msi version.)

The installation starts.

3. On the Welcome page, click **Next**.
4. On the **End-User License Agreement** page, select **I accept the terms in the License Agreement**, then click **Next**.
5. On the **Select Installation Folder** page, click **Browse** and select installation directories for 32-bit and 64-bit (if applicable) products. Alternatively, you can accept the default location(s), then click **Next**.
6. On the **Product Selection** page, select the required products, then click **Next**.

You must have product codes and keys to activate each product; however, you can install all products now, and activate those products for which you do not have a license at a later date. (Be aware that if you attempt to use products for which you do not have a license, you may receive error messages indicating that no license file is available.)



**Note:** Ensure you select **Documentation** on this page to install and access the product user guides.

7. On the **Installation Settings** page, select one or more of the following, then click **Next**:

| Select                    | To  |
|---------------------------|---|
| Install License Activator | Install a copy of the License Activator                             |
| Launch License Activator  | Launch the License Activator at the end of the installation process |
| Start AcuServer           | Start AcuServer as a service  |
| Start AcuConnect          | Start AcuConnect as a service                                       |



**Note:** Starting either AcuServer or AcuConnect as a service will only occur if you have run the .exe or .msi version of the installer with administrator privileges (see note above). If a previous version of either product is already running on its default port, an additional prompt is displayed, asking you if you want to shut down that service; you must answer **Y** if the new version of AcuServer or AcuConnect is to start - see *Notes on AcuConnect and AcuServer Installation* for more details.

If you selected **Launch License Activator** on the **Installation Settings** page, the **Activator Wizard** appears.

Activator Wizard

You need a product code and product key from your vendor to perform this step.

Type the text string labeled "product code" in the CODE field below.

Type the text string labeled "product key" in the KEY field below.

If you have more than one license to install, select the MORE button. Repeat as many times as necessary.

When you are done, select the FINISH button to continue activating your license.

Code:

Key:

More Finish Cancel

8. Type your first product code and key in the appropriate fields.

The License Activator is case-insensitive and displays only uppercase characters. It also ignores embedded spaces and separating characters. Product codes and keys do not contain the letters "O" or "I".

 **Caution:** If you have a license for both the Windows runtime (`wrun32.exe`) and an Alternate Terminal Manager (ATM) runtime (`run32.exe`) for the same machine, be aware that the Activator Utility creates a license file named `wrun32.alc` for each of them. To avoid a situation in which the Activator Utility overwrites the license file for the second runtime:

- Make a backup copy of the Windows runtime license file prior to creating (and renaming) the ATM runtime license.
- Create the ATM runtime license and rename it to match the executable (change `wrun32.alc` to `run32.alc`) before creating the Windows runtime license.

9. If you have more than one code and key pair to enter, select **More** after typing the first code/key pair. Repeat this process until you have entered all code and key pairs, then click **Finish**.

Each time you press **More**, the License Activator creates a separate license file for the product code and key you entered and returns you to the code and key entry screen.

10. Click **Finish** on the **Installation Complete** page to complete the installation.

 **Note:** If license activation was successful, but you get a message during product startup indicating that the license file cannot be found, the license file may not be in the correct directory. The License Activator determines where to place the license file based on entries in the Windows registry. If no registry entry is found, the license file is placed in the same directory as the License Activator executable file, which is the `\AcuGT\bin` sub-directory of the default installation directory. If this is not the location of the product's executable file, move the license file to the directory containing the corresponding executable file; for example, move `wrun32.alc` to the directory containing `wrun32.exe`.

## Windows 64-bit Installations

There are 64-bit versions of most extend products. These 64-bit versions are installed using a separate 64-bit version of the installer. The installation process follows the same steps as described in [Installation on Windows Platforms](#), with the following notable exceptions.

When running the 64-bit installer, if no 64-bit version exists for a selected product (for example, AcuBench), the 32-bit version is installed.

Products such as AcuConnect and AcuServer have 32-bit and 64-bit versions, and both are installed if you select these products during installation. You can also decide which version of the product to start on completion of the installation.

The AcuXDBC product is broken down into three installations: for the Data Interface, you can install both the 32-bit and 64-bit versions; and for the AcuXDBC Server and Enterprise Edition, you must choose which version to install.

By default, all 64-bit product versions are installed in the `Program Files` directory, and 32-bit product versions (and any supporting non-64-bit tools) are installed in the `Program Files (x86)` directory; although, you can change these locations during the installation. All the 32-bit versions are fully supported and functional in a 64-bit environment.

 **Remember:** When running the license activator after the installation, the 64-bit version of the Activator utility is run, which installs license files into both the 32-bit and 64-bit directories. When running the Activator utility from the command prompt, make sure you are using the 64-bit command prompt to ensure the correct licenses are generated and placed in the correct locations; otherwise, if the 32-bit Activator utility is run, only license files for 32-bit products will be generated.

# BIN-REDIST and REDIST Installation Directories

The extend Windows distribution contains two directories: BIN-REDIST and REDIST.

REDIST contains thin client files that should be distributed along with the thin client.

BIN-REDIST contains Microsoft Redistributable files. These files are required in cases where the ACUCOBOL-GT bin directory and runtime are placed on a shared drive and users then map to that drive. The BIN-REDIST directory should be placed inside the shared bin directory.

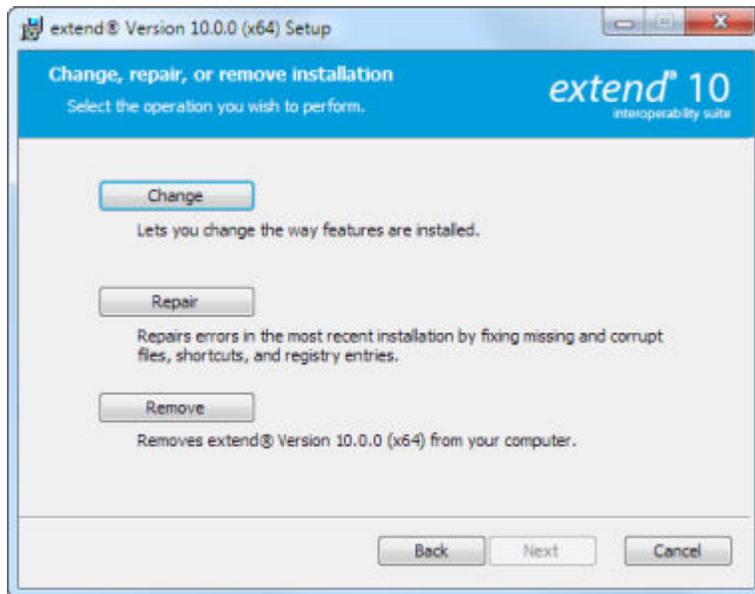
# Uninstalling or Modifying Your Installation

You can uninstall or amend your current installation in one of two ways: you can run the installer again, or use the Programs and Features section in Windows. Both enable you to run the Installation Wizard, where you can perform the following program maintenance:

**Change** Enables you to add or remove products to and from your current installation. Any products that were already checked that you uncheck are uninstalled. Any additions are installed using the default installation path (C:\Program Files\Micro Focus\extend x.x.x - where x.x.x is the version number). There is no option to change to a non-default location, but you can overcome this with some products by copying the installed files from the default location to your preferred location. Note that this method will not work for AcuXDBC, AcuBench, and any server products that are registered as services.

**Repair** Enables you to reinstall the currently installed products.

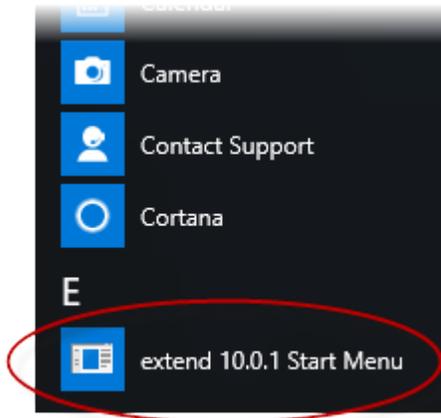
**Remove** Enables you to remove all products of your installation.



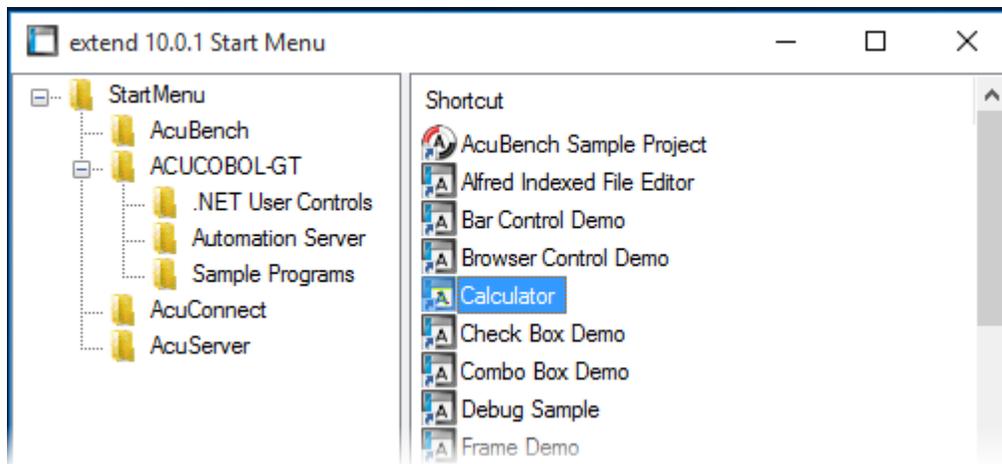
# Launching extend Products on Windows 8 or Later

Since the introduction of Windows 8, the Windows program menu does not display programs in a hierarchical way. For the extend Interoperability Suite, this would mean that all the programs relating to AcuBench, ACUCOBOL-GT, AcuConnect, etc... would be displayed as a flat list, and it would be difficult to distinguish which programs were related to which products.

In order to show the programs grouped within the products they belong to, the extend Start Menu has been introduced. After installation of the extend Interoperability Suite, there will be one entry in the Windows programs menu - **extend x.x.x Start Menu** (where x.x.x is the version number of the installed product):



Launch this application to display a hierarchy that looks similar to the Windows program menus prior to Windows 8. Simply navigate the folders displayed in the left-hand pane to display shortcuts to the related programs in the right-hand pane. Select the required shortcut: at which point, the extend Start Menu closes and the program is launched.



## Compiling Your Programs

The ACUCOBOL-GT compiler is most easily used via AcuBench. However, it is also possible to compile from the command prompt or the Windows Start menu, to establish an association between your source files and the compiler executable, or to set up one or more icons to compile individual files. For information regarding creating file associations and setting up icons, see your Windows documentation.

When you compile, if the system returns "Bad command or file name," you did not add the location of the compiler to the PATH environment variable, or you have not rebooted since installing the software.

You can check the current definition of PATH by typing `path` and pressing **Enter** at the command prompt. The default path is `C:\Program Files\Micro Focus\extend x.x.x\AcuGT\bin` (or `c:\Program Files (x86)\...` for 64-bit installations). If you do not update PATH with this entry, you must type the full path and program name to the compiler each time you compile; alternatively, you can create a `.bat` file.

Once you have verified that the compiler is in your PATH (or you have decided that you will specify the full path every time you compile), you are ready to compile your programs. Refer to *ACUCOBOL-GT User's*

*Guide > Compiler and Runtime > Using the Compiler* for a complete list of compile options. You can also display a complete list of options by running the compiler command:

```
ccbl32 -help
```

One commonly used option is `-o`. This option is used to specify the name of the output object file. Note that ACUCOBOL-GT uses the naming convention `.acu` to indicate an ACUCOBOL-GT object file. If `-o` is not used, the compiler will name the file `source-name.acu`. If your source includes COPY files, you can copy the COPY files to your current working directory, specify their location with the `-Sp` option followed by the complete path of one or more directories, or set the `COPYPATH` environment variable. A typical compilation command might look like:

```
ccbl32 -Sp c:\work\lib -o sample.cbx sample.cbl
```

## Running Your Programs

After a successful compilation, the resultant object file is ready for immediate execution (no link step is required). To run your program, make a note of the full path to your object file and return to the Windows desktop.

There are a variety of ways to run your program under Windows. The basic methods are:

- Running a command from the **Start** menu.
- Placing an icon for each program in a Program Group or folder, and then starting the program by double-clicking its icon.
- Naming your COBOL object files with a common file extension and then associating the extension with the runtime. After the association is established, you can run a program by double-clicking on the name of the file as it appears in Windows.
- Using the **wrun32** (or **crun32** if you are using the console runtime) command at the command prompt.

This document describes how to run a program from the **Start** menu only (although, the command line option is almost identical). The advantage of this method is that it requires no special setup. However, it is more time-consuming (than other methods) because you must type the command line options every time you execute the program. For greater convenience, it is best to set up a program icon: to do this, or to create a file association to the runtime, please refer to your Windows documentation.

1. Click the **Start** button.
2. On the Start menu, in the entry field, type the name of your ACUCOBOL-GT Windows runtime.

The default name is `wrun32.exe`. If you changed the name of the runtime executable, enter that name.

3. Following the name of the runtime, enter any runtime options required, followed by the path and name of the COBOL executable program you want to run.
4. After you have entered the complete command line, press **Enter** to execute the program.

 **Note:** If you did not add the `\bin` directory path to the `PATH` system environment variable (typically, that is: `c:\Program Files\Micro Focus\extend xxx\AcuGT\bin`), you will need to specify the full path to the runtime (`c:\Program Files\Micro Focus\extend xxx\AcuGT\bin\wrun32.exe`) each time in the command (and not simply `wrun32.exe`).

You can use the COBOL configuration variable `DEFAULT_PROGRAM` to specify the name of the program to execute when no program is specified on the command line. See *Appendix H* in the ACUCOBOL-GT documentation set for more configuration information.

## Printing and Spooler Issues

ACUCOBOL-GT includes extended support for printing under Windows. In addition to the basic print spooler access procedures described below, the `WIN$PRINTER` runtime library routine provides easy access to extended Windows print spooler capabilities. See the entry for "WIN\$PRINTER" in *ACUCOBOL-*

*GT Appendices Guide > Appendix I. Rules for printer handling are illustrated in the ACUCOBOL-GT User's Guide > Compiler and Runtime > Filename Interpretation > Assigning Files to Printers.*

Under Windows, you may print directly to the printer by defining PRINTER in the configuration file as "-D PRN". Be aware that this does not prevent other programs from printing at the same time and as a result you may get intermixed pages.

You may also print using the Windows spooler, even if your reports have embedded control codes. The spooler allows many programs to create print files at the same time, and also allows the user to do other tasks while the report is being printed.



**Note:** The configuration variable WIN\_SPOOLER\_PORT allows you to divert printer output to a file or port through the Windows print spooler. For more information, see *ACUCOBOL-GT Appendices Guide > Appendix H* of the ACUCOBOL-GT manual set.

Before you assign your print file to the Windows spooler, you must decide whether you want to control the format of each page directly (with embedded control codes) or whether you want the print spooler to format the pages.

## Spooler Formatting

There are two ways to use the Windows spooler to format your print file: "-P SPOOLER" and "-Q <prntername>". See [Direct Control](#) for information on controlling the formatting yourself.

### -P SPOOLER

If you want to use the default printer and font, simply assign your print file to "-P SPOOLER". For example, to assign "PRINTER1" to the spooler, enter the following line in your COBOL configuration file ("CBLCONF1"):

```
PRINTER1 -P SPOOLER
```

By default, the runtime system assigns the "PRINTER" device to the spooler. You may change this in the configuration file by assigning "PRINTER" to some other name.

When the runtime opens a file assigned to "-P SPOOLER", it automatically initiates a job with the Windows spooler and constructs print pages in accordance with your program. The runtime uses the default printer and font. If the user looks for the job in the spooler, it is named with the current title of the ACUCOBOL-GT window.



**Note:**

The Windows spooler operates by drawing your report on each page. It constructs its own control codes to handle formatting. If you assign your print file to "-P SPOOLER" and your file contains device-dependent control sequences (such as those used to shift to a condensed font, or to print a form and then fill it in), the codes will be passed to the spooler as data and thus will not be interpreted correctly. If you have reports that depend on embedded control codes, you should print those directly to the device, or assign the print file to "-P SPOOLER-DIRECT," as described below.

### -Q <prntername>

If you want the Windows spooler to format the pages of your report, but you want to use a particular printer, assign your print file to:

```
PRINTER1 -Q \\prntername
```

in the configuration file (CBLCONF1). *Prntername* is the printer designation as given in the **Devices and Printers** screen. The name may be up to 80 characters long and contain embedded spaces. The name may not include the semicolon character (;) or be surrounded by single or double quotes. The pages are printed in the manner described in "-P SPOOLER", above. The sample programs `graphprn.cbl` and `prndemox.cbl` contain examples of these functions.

To determine a valid printer name, use the WIN\$PRINTER library routine to obtain the name of the desired printer. (This is described in *Appendix I* under the WINPRINT-SET-PRINTER operation code in "Specifying a Printer".) Then add the following line to your code:

```
MOVE "-Q \\prntername" TO WS-PRINTER-NAME.
```

When the runtime opens a file assigned to "-Q <prntername>", it sets the Windows print spooler to use this printer. The printer driver must be installed on the computer from which you print. If *prntername* is not recognized by the runtime, a dialog box allows you to choose a printer manually.



**Note:**

If you want to access a printer using a UNC path, you have to print directly to the printer by defining PRINTER as "-D PRN". If you use the UNC path, Windows formatting is not supported.

## Direct Control

If you want to control the format of the printout yourself using embedded control codes, simply assign your print file to -P SPOOLER-DIRECT or to -Q <prntername> using the DIRECT=ON option. For example, to assign the print job "PRINTER1" to the spooler and retain direct control over formatting, enter the following line in your COBOL configuration file (CBLCONF1):

```
PRINTER1 -P SPOOLER-DIRECT
```

Or, use the following command to assign PRINTER1 to the spooler for printing to a specific printer while retaining direct formatting control:

```
PRINTER1 -Q prntername;DIRECT=ON
```

Both of these methods cause the print job to be sent to the printer via the Windows spooler, but the program does not use the spooler to format the pages. You must use embedded control codes to handle formatting (much as you would under UNIX if you used the UNIX spooler).

When using the -P SPOOLER-DIRECT option, you may use the WIN\$PRINTER library routine to choose a printer, but because you completely control the printer, the various options provided by WIN\$PRINTER are ignored. For example, WIN\$PRINTER does not set the page size, page orientation, or font. Information returned from WIN\$PRINTER, such as number of lines and columns on the page, may not be accurate and should not be used. This subject is discussed in detail in *Appendix I "Library Routines"* of the ACUCOBOL-GT manual set.

Because some print drivers do not flush the last page, be sure to end your last page with a form-feed (for example, WRITE ... BEFORE ADVANCING PAGE). This ensures that all pages are printed. The ACUCOBOL-GT runtime ensures that no extra blank pages are printed at the end.

If you code WRITE...AFTER ADVANCING PAGE instead of WRITE...BEFORE ADVANCING PAGE, you might receive a blank last page. This is because a blank line written on the new page causes the Windows subsystem to flush the page for some print drivers. ACUCOBOL-GT ensures that entirely empty lines are not sent to the device (only the form-feed will be sent). But it is essential that:

- You have specified trailing space removal in your COBOL code (the default for print files).
- You have set the configuration option MIN-REC-SIZE to "0".

Your other option is to specify WRITE... BEFORE ADVANCING PAGE to avoid this potential problem.

If the user looks for the job in the spooler, it is named with the current title of the ACUCOBOL-GT window.

## Printing Multiple Jobs Simultaneously

If you need to print multiple jobs at the same time, you must open multiple File Descriptors that point to "-P SPOOLER" or "-P SPOOLER-DIRECT" simultaneously. For example, you may have two simultaneous print jobs:

```
SELECT FIRST-FILE  
ASSIGN TO PRINTER "-P SPOOLER".
```

```

SELECT SECOND-FILE
      ASSIGN TO PRINTER "-P SPOOLER" .

..PROCEDURE DIVISION.

..

      OPEN OUTPUT FIRST-FILE .
      OPEN OUTPUT SECOND-FILE .

```

and both will print to the default Windows printer without interfering with each other. You can call WIN\$PRINTER USING WINPRINT-SETUP before one or both of the OPEN statements. Each file may have individual file status variables or may refer to a common file status variable.

This does not mean that you can open a single File Descriptor multiple times. For example, the following will return file status indicating that the file is already opened:

```

SELECT FIRST-FILE
      ASSIGN TO PRINTER "-P SPOOLER" .

..

PROCEDURE DIVISION.

..

      OPEN OUTPUT FIRST-FILE .
      OPEN OUTPUT FIRST-FILE .

```

This is normal behavior and is consistent with the way file handling is implemented in COBOL and in other programming languages.

If you are using only the verbs OPEN, CLOSE, and WRITE, no further changes to your code are needed. If you are using WIN\$PRINTER functionality (other than WINPRINT-SETUP) you will need to specify which print job is affected. This can be done in two ways:

1. The simplest way is to execute the WIN\$PRINT operation immediately after an OPEN or WRITE statement on the intended job. Every execution of OPEN and WRITE sets the current job as the default so that subsequent activity using WIN\$PRINTER is automatically directed to the job that was last accessed with an OPEN or WRITE statement.

In this situation, if you have multiple jobs running, and you close one of them, the runtime switches to the next job in the list. For example, if you are printing jobs 1, 2, and 3, and you close job 2, the close command sets the current job to 3. If there is no job 3, the runtime attempts to set to the job that preceded the closed job (which in this case is job 1). If there are no jobs, the current job is initialized.

2. The other method is to use the WINPRINT-SET-JOB operation of the WIN\$PRINTER library routine. This operation is described in *Appendix I* of the ACUCOBOL-GT manual set.

# UNIX Installation

## License Files for UNIX

UNIX users may request a license file for one or more users.

When you receive your product(s), the package includes product codes and product keys for every product you ordered. You require these product codes and product keys to create license files.

## The Activator Utility

The Activator utility automates the process of creating a license file. On UNIX platforms, the Activator utility operates through a command-line interface.

By default, the Activator utility program (`activator`) is placed in the same directory as the runtime and other binary executable files.

If you did not install the Activator utility with your other products, simply copy the file onto your computer and run it as you would any other executable.

## Changing or Updating Your UNIX License Files

If you need to alter a license file, contact your Micro Focus *extend* representative for updated product codes and product keys. When you receive them, launch the Activator utility and enter the new product codes and product keys as prompted.

## Installation Under UNIX

To install *extend* products on UNIX or Linux systems, you must have the product media, and the product codes and product keys for the products you intend to install. Your products are delivered via FTP.

## Installation Process

1. Download the product from the Micro Focus SupportLine site.



**Note:** Before running the installer, ensure that the `tar` utility is on your PATH.

2. Enter the following:

```
/path/to/installer/installer-name [options]
```

where *installer-name* will be something similar to `setup_acucob1010pmk59shACU`.

The following options can be included:

| Option                            | Description  |
|-----------------------------------|--|
| <code>-d installation-path</code> | Specifies a new default install location offered during the installation. If not specified, the default location is the current working directory (.). Any specified directory must already exist. |

| Option | Description  |
|--------|--|
| -EULA  | This option can be combined with the <code>-EULA</code> option, but if it is, it will specify the location of the extracted EULA, and not the location of the installed product. |
| -help  | Displays the available options that can be appended to the installation command.   |

 **Note:** If you install ACUCOBOL-GT as a shared object library and you don't install to the default location, you need to set an appropriate library path variable specifying the location of the shared objects. For example, on an AIX system, you would need to set the LIBPATH environment variable. Note that if you log in as root or a superuser, this variable must also be set in root's environment for ACUCOBOL-GT to start. Additionally, see [SHARED\\_LIBRARY\\_PREFIX configuration variable](#).

After installation, you must use the Activator utility to license the products installed.

- From the installation directory, enter the following command to run the Activator utility:

```
./bin/activator
```

- At the prompt, type the product code and product key pairs that came with your product package, pressing **Enter** after each pair: this updates the license file. Repeat this cycle until the code/key pairs for each product you have ordered are entered.

 **Note:** Each product searches for its license file in the same directory in which its executable resides. If you move the product's executable to a new directory, you must move its license file to the same location.

- To start the acushare license manager service, enter the following:

```
acushare -start
```

- Navigate to the `sample` sub-directory of your installation directory and try compiling and running the **tour** program, using the following commands:

```
ccbl tour.cbl
runcbl tour.acu
```

- If you get the message `Can't find entry for 'terminal' in 'term-lib'`, you need to configure your terminal for ACUCOBOL-GT. See [Configuring Your Terminals](#).
- Once you have the sample program running, we recommend that you edit the `cblconfig` file supplied with ACUCOBOL-GT to meet the needs of your site. In particular, you should configure it to support the printers you have attached to your system.
- If you are using shared memory, see the instructions for configuring acushare in *ACUCOBOL-GT User's Guide > Runtime Manual > Shared Memory > Acushare Utility Program*.

## SHARED\_LIBRARY\_PREFIX Configuration Variable

If you install ACUCOBOL-GT as a shared object library and you don't install to the default location, you need to set an appropriate library path variable (LIBPATH or LD\_LIBRARY\_PATH) specifying the location of the shared objects. The SHARED\_LIBRARY\_PREFIX variable helps the runtime find `libacInt.so` (or `libacInt.sl`) in case the LIBPATH (or LD\_LIBRARY\_PATH) variable is not set. `libcInt.so` (or `.sl`) is needed for AcuServer and AcuConnect support.

If a shared library name is specified without any directory information and the system call fails to load the shared library, the runtime will try to load the shared library from each of the directories specified in the SHARED\_LIBRARY\_PREFIX configuration variable.

The default value for SHARED\_LIBRARY\_PREFIX is `/opt/acucorp/xxx/lib:/opt/acu/lib`. The format of the value of SHARED\_LIBRARY\_PREFIX is the same as FILE\_PREFIX. You can set SHARED\_LIBRARY\_PREFIX in the configuration file or environment, or programatically with the SET verb.

Note that the runtime searches for and loads `libaclnt.so` (or `libaclnt.sl`) using the default value of `SHARED_LIBRARY_PREFIX`. This happens before reading the configuration file, environment, or running any COBOL code.

You can set `SHARED_LIBRARY_PREFIX` to an empty value if you do not want to use it.

Also, if the license is for AcuTSL, in a transactional server environment such as CICS, the runtime will add `/opt/acucorp/xxx/bin/runcbl.11c` and `/opt/acu/bin/runcbl.11c` to its list of license files to check. First the runtime checks `$ACUCOBOL/etc/license.acu`, then `/etc/license.acu`. If neither exists, the runtime will check `/opt/acucorp/xxx/bin/runcbl.11c` and finally `/opt/acu/bin/runcbl.11c`.

For cases in which users install ACUCOBOL-GT in the default location, `/opt/acucorp/xxx` or `/opt/acu`, and they have a license file, `runcbl.11c` in their bin directory, they will not need to copy the license to `/etc/license.acu`.

## Configuring Your Terminals

ACUCOBOL-GT requires data about the video environment it is running in. On Windows machines, it directly examines the hardware and configures itself appropriately. On UNIX and VMS machines, you must provide a description of the terminal you are using. This section describes briefly how to provide that information. Additional details are provided in the *Terminal Manager* section of the *ACUCOBOL-GT User's Guide*.

On systems that do not configure themselves automatically, describing the terminal to ACUCOBOL-GT involves two steps:

1. First, identify the terminal by setting the "TERM" variable.
2. Second, ensure that the terminal's characteristics are accurately described in the terminal database file.

### TERM Variable

ACUCOBOL-GT determines the type of terminal you are using by looking at the setting of the "TERM" variable. On UNIX and Linux machines, TERM is an environment variable; on VMS machines, it's a symbol. Samples for both UNIX and VMS are presented below.

TERM should be set to the name of one of the entries in the terminal database. You can examine the database file for valid names. The first field of each entry consists of a list of accepted names. Some common names are "vt100", "tv925", and "wy50" for VT100, Televideo 925, and Wyse 50 terminals, respectively.

Note that on most UNIX systems, the TERM environment variable is initialized as part of the login procedure. You will need to change this only if the name used is not one listed in the terminal database. On VMS systems, the TERM symbol defaults to "vt100" if it is not defined. Thus, you need to define the TERM symbol only if you want to use a terminal that is not VT100 compatible or if you want to use some advanced features of your terminal.

As an example, suppose you want to use a VT220 terminal. In the database, "vt220" is one of the accepted names for this type of terminal. On a VMS system, you would use the following command

```
TERM == "vt220"
```

On UNIX systems with the Bourne or Korn shell, the command would be:

```
TERM=vt200; export TERM
```

Using the C shell, the equivalent command is:

```
setenv TERM vt220
```

You may want to leave the TERM variable at its current setting to maintain compatibility with other software. If the setting is not correct for ACUCOBOL-GT, you can set the "A\_TERM" variable instead. If both the

A\_TERM and TERM variables are set, ACUCOBOL-GT uses the definition of A\_TERM. This allows you to have different settings for ACUCOBOL-GT and your other software.

## Terminal Database

ACUCOBOL-GT comes with a database of terminal descriptions. On UNIX machines, this is called "a\_termcap". On VMS machines it is called "A\_TERMS.DAT". This database contains encoded descriptions of many types of terminals. You need to select the terminal type in the database that most closely matches the terminal you are using. If you need to, you can add your own entries in the database.

By default, the terminal database should reside in a pre-selected directory on your machine. On UNIX machines, this is the "/etc" directory; on VMS machines, it is the "SYS\$LIBRARY" directory. If you want to place your terminal database somewhere else, then you must define the variable "A\_TERMCAP" to be the full name of the database file. For example, on a VMS system, you could place the database in the "SYS\$LOCAL" directory with the following command:

```
A_TERMCAP == SYS$LOCAL:A_TERMS.DAT
```

On UNIX systems (using the Bourne shell), you might use the command:

```
A_TERMCAP=/usr/local/etc/a_termcap; export A_TERMCAP
```

The *ACUCOBOL-GT User's Guide* contains more information about setting up terminals and making full use of their capabilities, and selecting terminal types.

# Changes Affecting Version 10.1.1

If you are upgrading from a version of the extend Interoperability Suite prior to version 10.1.1, you need to be aware of the following changes that may affect your existing applications:

## **Translating OEM character sets**

In the previous release, Unicode support was introduced for user input and output, and as part of the implementation, a new configuration variable (COBOL-CHARACTER-SET) was introduced, and the TRANSLATE-TO-ANSI configuration variable was removed. If your data was represented by an OEM character set, you would either need to determine the correct Microsoft OEM code page, then set COBOL-CHARACTER-SET to its identifier number or to OEM (or 1).

For ease of upgrading, we have reintroduced the TRANSLATE-TO-ANSI configuration variable, with the same semantics as in prior versions. However, it should be noted that having COBOL-CHARACTER-SET set to the default of ANSI, and TRANSLATE-TO-ANSI to TRUE, is less efficient than setting TRANSLATE-TO-ANSI to FALSE, and setting COBOL-CHARACTER-SET to OEM. The reason is that, in the former case, the runtime first translates OEM data to ANSI, then translates the ANSI data to UTF-16 to display it; and when accepting data, the runtime receives UTF-16 data, translates it to ANSI, and then translates again to OEM to return to the COBOL program. While in the latter case, the runtime translates the OEM data to UTF-16 directly (to display), and UTF-16 to OEM directly (to accept).

# What's New

The following items are new for this release:

## ACUCOBOL-GT Enhancements

This section includes the enhancements related to ACUCOBOL-GT.

### ECN-4483 Using OEM data with extend 10.1 and later

RPI Number: 628325

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: Windows

Known Versions Affected: 10.1.0 and later

#### DESCRIPTION:

ECN-4363 introduced Unicode support for user input and output, and as part of the implementation, a new configuration variable (COBOL-CHARACTER-SET) was introduced, and the TRANSLATE-TO-ANSI configuration variable was removed. Under this implementation, if your data matched the current ANSI code page, you were unaffected, but if your data was represented by an OEM character set, you would either need to determine the correct Microsoft OEM code page, and then set COBOL-CHARACTER-SET to its identifier number or to OEM (or 1).

For ease of upgrading, we have reintroduced the TRANSLATE-TO-ANSI configuration variable, with the same semantics as in prior versions. You can use either variable for OEM character set translations. However, it should be noted that having COBOL-CHARACTER-SET set to the default of ANSI and TRANSLATE-TO-ANSI set to TRUE is less efficient than setting TRANSLATE-TO-ANSI to FALSE and setting COBOL-CHARACTER-SET to OEM. The reason is that, in the former case, the runtime first translates OEM data to ANSI, then translates the ANSI data to UTF-16 to display it; and when accepting data, the runtime receives UTF-16 data, translates it to ANSI, and then translates again to OEM to return to the COBOL program. While in the latter case, the runtime translates the OEM data to UTF-16 directly (to display), and UTF-16 to OEM directly (to accept).

The default value for TRANSLATE-TO-ANSI is FALSE.

# Resolved Issues

The following are resolved issues for the extend products.

## ACUCOBOL-GT ECN List

This section includes the ECNs relating to ACUCOBOL-GT:

### ECN-4446 logutil -r offsets limited to 2GB

Product: ACUCOBOL-GT

Module: logutil

Machines Affected: all 32-bit

Known Versions Affected: all

#### DESCRIPTION:

There is no longer a 2GB limit when selecting transactions as a result of the offset arguments you pass to `logutil -r`. Previously, the way that the arguments were converted from a string to a file offset caused the limit, but this has been corrected.

### ECN-4447 Failed START TRANSACTION operations not rolled back

Incidents: 2874983

RPI Number: 1106895

Product: ACUCOBOL-GT

Module: runcbl

Machines Affected: all

Known Versions Affected: all

#### DESCRIPTION:

Failed START TRANSACTION operations are now correctly rolled back. Previously, this was not happening, and so would leave the transaction log in an incorrect state, which would later cause issues during a recovery.

### ECN4454 Changes to Window Size

Incidents: 2874630

RPI Number: 1106603

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: Windows

Known Versions Affected: 10.0.0 and later

**DESCRIPTION:**

A minor display issue, where some application windows were created slightly larger in 10.0 and later than in previous versions, has been fixed.

## **ECN-4455 ActiveX memory access violation**

Incident: 2881395

RPI Number: 1107619

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: Windows

Known Versions Affected: 9.2.0 and later

**DESCRIPTION:**

When passing a dispatch pointer into an ActiveX method, the runtime no longer loses the reference count; it previously could, causing the runtime to crash or generate other errors.

## **ECN-4457 Implicit string array conversions using C\$JAVA**

Incidents: 2880460

RPI Number: 625063

Product: ACUCOBOL-GT

Module: runtime

Machines Affected: all

Known Versions Affected: all

**DESCRIPTION:**

C\$JAVA does not support the implicit conversion of a table of strings to Java array of strings; you must use the an explicit conversion instead. If you attempt an implicit conversion, using a table of strings as a parameter, C\$JAVA now returns CJAVA-INVALIDARG. Previously, such a call would generate a Java exception and return CJAVA-EXCEPTIONOCCURRED.

## **ECN-4458 64-bit addresses**

Incidents: 2881589

RPI Number: 1107842

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: 64-bit Windows

Known Versions Affected: All

**DESCRIPTION:**

Due to the nature of how Microsoft implements different C data types, the following issues relating to 64-bit support on Windows were fixed:

- It was not possible for a DIRECT-style function to RETURN a 64-bit value (in particular, a pointer). Even when the value was correct, it was not stored correctly in the COBOL data item.
- The SET ADDRESS OF syntax was failing to set 64-bit address.

## **ECN-4459 Push buttons with the ISLINK property ignore RGB colors**

Incidents: 2878563

RPI Number: 1107062

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: Windows

Known Versions Affected: 9.2.0 and later

**DESCRIPTION:**

Push buttons configured with the ISLINK property no longer ignore the RGB color set for both foreground and background.

## **ECN-4460 Memory access violation when destroying ActiveX control**

Incidents: 2884707

RPI Number: 1107969

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: Windows

Known Versions Affected: 9.2.0 and later

**DESCRIPTION:**

When setting a property of an ActiveX control to a handle retrieved from that control, the runtime no longer calls the ActiveX function `Release()` too often; previously it would, which could easily result in a memory access violation at a later time.

## **ECN-4461 Grid and status bar display problems**

Incidents: 2539095

RPI Number: 1081436

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: Windows

Known Versions Affected: All

**DESCRIPTION:**

A display problem of grid and status bar controls on Windows, where the control does not display, has been fixed. Previously, Windows would sometimes send messages to the runtime in a different order than normal, which would cause some controls to paint incorrectly. This was particularly noticeable when COBOL starts an ActiveX control in a COBOL thread.

## **ECN-4463 Various issues with C\$OPENSERVE**

Incidents: 2887311, 2887311, 2988393

RPI Number: 1108524, 1108526, 1108539

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: Windows only

Known Versions Affected: 10.1.0 and later

**DESCRIPTION:**

The following issues when using C\$OPENSERVE on Windows have been fixed:

- If you did not specify a file name, the combo-box showing the file types does not display.
- If the combo-box showing the file types is displayed (because you specified a file name), there is garbage data in the list of filters.
- When using the OPENSERVE-BROWSE-FOLDER opcode, the runtime crashes after dismissing the dialog.

## **ECN-4464 PORT value truncated to a single character**

Incidents: 2913195

RPI Number: 1108454

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: Windows only

Known Versions Affected: 10.1.0 and later

**DESCRIPTION:**

The WINPRINT-PORT value returned by WIN\$PRINTER is no longer truncated to a single byte.

## **ECN-4465 WINPRINT-GET-INFO fails to get printer info when using printer number**

Incidents: 2989218

RPI Number: 1108607

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: Windows only

Known Versions Affected: 10.1.0 and later

**DESCRIPTION:**

When calling WIN\$PRINTER to obtain information about a printer, using the printer number no longer causes the runtime to return the wrong (or no ) information.

## **ECN-4466 Animated bitmaps stop working**

Incidents: 2913247

RPI Number: 1108463

Product: ACUCOBOL-GT

Module: Thin Client

Machines Affected: Windows

Known Versions Affected: 10.1.0 and later

**DESCRIPTION:**

When executing a long-running system command on the server, the thin client now animates bitmaps as expected.

## **ECN-4467 XML encoding problems for ISO-8859-1**

Incidents: 2989705

RPI Number: 1108653

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: All

Known Versions Affected: 10.1.0 and later

**DESCRIPTION:**

Using C\$XML, encoding an XML file to ISO-8859-1 now works as expected. Previously, when writing the file the encoding specified would be "Undefined".

## **ECN-4468 Controls based on font size are different sizes**

Incidents: 2989940

RPI Number: 1108677

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: Windows only

Known Versions Affected: 10.1.0 and later

**DESCRIPTION:**

When measuring fonts in order to ascertain the size of a control, the result of the default size calculation can differ between fonts that contain Unicode characters and those that do not. This difference in measurement can affect the displaying of the controls on a user interface.

If you are using non-Unicode fonts in your controls, you can leave the new `USE_UNICODE_FONTS` configuration variable at its default of `FALSE`.

If you are using Unicode fonts in your controls, set `USE_UNICODE_FONTS` to `TRUE`, so that the measurement is carried out using Unicode font functions; this will ensure that an accurate measurement of the font is calculated, and the control will be correctly sized.



**Tip:** In some circumstances when `USE_UNICODE_FONTS` is set to `TRUE`, the runtime will test every character in the font for its size to get a real maximum width. Because Unicode fonts can contain a large number of characters (up to 65,000), it could mean that calling `W$FONT` to create a font could take more time than it should; if that is the case, set `USE_UNICODE_FONTS` to `FALSE`, so that only ANSI character widths are calculated. It should ensure that the font is created quicker, but you may find that controls created in this way may not be large enough to display the full data item attached to it, and some truncation may occur.

## ECN-4469 WIN\$VERSION returns wrong value for WIN-WORDSIZE

Incidents: 2991319

RPI Number: 1108808

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: Windows only

Known Versions Affected: 10.1.0 and later

### DESCRIPTION:

The `WIN$VERSION` function now returns the correct value for the `WIN-WORDSIZE` field; that is, it returns 32-bit for 32-bit operating systems, and 64-bit for 64-bit operating systems.

## ECN-4470 CXML-GET-ATTRIBUTE-BY-NAME fails with root element

Incidents: 2989942

RPI Number: 1108697

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: All

Known Versions Affected: All with C\$XML

### DESCRIPTION:

The way in which `C$XML` opcodes process element handles is now more consistent. Previously, some opcodes that took an element handle would convert from the parser handle to the top-level element (for example, `CXML-GET-ATTRIBUTE-COUNT`), and others would not (for example, `CXML-GET-ATTRIBUTE-BY-NAME`); this resulted in inconsistencies in how some of the opcodes work. Now, passing the parser handle to `C$XML` with an opcode that expects an element handle will treat the parser handle as the top element handle.

## **ECN-4471 Memory access violation in the Debugger when displaying paragraph name**

Incidents: 3100859

RPI Number: 1108894

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: All

Known Versions Affected: Unknown - probably many

### **DESCRIPTION:**

Whilst debugging, displaying the value of a variable (without qualification) when the variable has the same name as a paragraph in the program now works as expected. Previously, the runtime would try to show the value of the paragraph as well, and would sometimes generate a memory access violation as a result.

## **ECN-4472 Truncated text in web browser status bar**

Incidents: 3101031

RPI Number: 1108897

Product: ACUCOBOL-GT

Module: runtime

Machines Affected: Windows

Known Versions Affected: 10.1.0 and later

### **DESCRIPTION:**

The status text generated from the Browser control is no longer truncated to a single character. Previously, it was truncated as a result of the Unicode support that was introduced in extend 10.1.0.

## **ECN-4473 Event handling issues**

RPI Number: Various

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: Windows

Known Versions Affected: 10.1.0 and later

### **DESCRIPTION:**

A bug was fixed in the way that the runtime returns certain events to a COBOL program.

## **ECN-4474 File Status 30 when using -P SPOOLER-DIRECT**

Incidents: 2989292

RPI Number: 1108629

Product: ACUCOBOL-GT  
Module: Runtime  
Machines Affected: Windows  
Known Versions Affected: 10.1.0

**DESCRIPTION:**

The runtime no longer reports a file status 30 on OPEN statements when using the -P SPOOLER-DIRECT option.

## **ECN-4475 ACCEPT FROM INPUT STATUS now working through thin client**

Incidents: 2989180  
RPI Number: 1108645  
Product: ACUCOBOL-GT  
Module: AcuThin.exe  
Machines Affected: Windows  
Known Versions Affected: 10.1.0 and later

**DESCRIPTION:**

An ACCEPT FROM INPUT STATUS command now returns a value when executed under thin client.

## **ECN-4476 Error message received: Connection failed Unknown Error**

Incidents: 2990847  
RPI Number: 1108768  
Product: ACUCOBOL-GT  
Module: AcuThin.exe  
Machines Affected: Windows  
Known Versions Affected: All

**DESCRIPTION:**

When attempting to run `acurcl` without a valid thin client license, you now receive a more appropriate error message:

```
License File AcuConnect Thin Client inaccessible
```

## **ECN-4478 Unicode characters not printing to PDF file**

Incidents: 2887696  
RPI Number: 1108409  
Product: ACUCOBOL-GT  
Module: Runtime

Machines Affected: All

Known Versions Affected: 10.1.0

**DESCRIPTION:**

When writing to a PDF file using the `-P PDF filename` assignment to your print file, Unicode characters now display correctly (as long as you have the correct configuration settings in effect). Previously, they would appear something like a square box or some other random symbol.

To print Unicode characters to a PDF file, ensure that you have the following configuration settings in effect:

- COBOL\_CHARACTER\_SET UTF-8
- PDF\_FONT\_TYPE TRUETYPE
- Either PDF\_FONT\_TRUETYPE\_TTC *<file.ttc>* or PDF\_FONT\_TRUETYPE\_TTF *<file.ttf>*

## **ECN-4479 Errors when relinking the Windows runtime**

RPI Number: 624322

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: All Windows

Known Versions Affected: 10.1.0

**DESCRIPTION:**

You no longer receive errors when trying to relink the 32-bit or 64-bit runtime. Previously, it would not relink due to missing libraries in the `lib` directory:

- `libhpdf.lib`
- `libpdf.lib`

## **ECN-4480 A failed DISPLAY WINDOW will change properties on the active window**

Incidents: 2990173

RPI Number: 1109033

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: All

Known Versions Affected: 10.0.1 and later

**DESCRIPTION:**

When a DISPLAY WINDOW operation fails, the runtime now sets the window handle to 0. Previously, such failures caused properties set on that invalid window to be applied to the current window.

## **ECN-4482 Thin client runtime issues processing ACCEPT**

RPI Numbers: 1108502, 1108503

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: All

Known Versions Affected: 10.1.0 and later

**DESCRIPTION:**

When the thin client had data to send to the runtime, and the runtime switched threads, it could start a new ACCEPT, which had the following consequences:

- A new control could have the focus suddenly.
- The ACCEPT recursion was incremented; therefore, if it occurred often enough, it generated an ACCEPT recursion limit error.

These issues have now been resolved.

## **ECN-4485 Default control size incorrect**

Incidents: 3111790

RPI Number: 1109973

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: Windows

Known Versions Affected: 10.1.0 and later

**DESCRIPTION:**

When a control is created without a SIZE specification, the runtime now measures the width of the control correctly. Previously, it didn't, resulting in a control that didn't show all of the title or value text.

## **ECN-4486 Memory leak parsing XML files**

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: All

Known Versions Affected: 10.1.0 and later

**DESCRIPTION:**

The runtime no longer leaks memory when parsing XML files.

## **ECN-4488 TAB and LISTBOX controls not painting correctly**

Incidents: 3114002

RPI Number: 1110200

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: Windows

Known Versions Affected: All

**DESCRIPTION:**

TAB and LISTBOX controls are now drawn correctly. Previously, when a control had a large handle (greater than 65535), the Microsoft libraries would truncate the value when passing that handle to certain draw and measure functions (functions that only LISTBOX and TAB controls use), which would result in those functions not drawing the control correctly, or at all.

## **ECN-4492 CGI applications not accepting data from HTML form**

RPI Number: 1108803

Product: ACUCOBOL-GT

Module: Compiler and Runtime

Machines Affected: All

Known Versions Affected: 10.1.0 (only)

**DESCRIPTION:**

CGI applications now correctly ACCEPT data from an external HTML form. Previously (in 10.1.0), form handling would not work or might generate odd errors, and the workaround for this was to compile for an earlier object format (e.g. -z100 to create a version 10.0.0 compatible object file).

## **ECN-4494 C\$XML runtime crash**

Incidents: 3115103

RPI Number: 1110324

Product: ACUCOBOL-GT

Module: Runtime

Machines Affected: All

Known Versions Affected: 10.1.0 and later

**DESCRIPTION:**

When an XML element has no children, calling C\$XML with CXML-GET-CHILD- BY-NAME no longer crashes the runtime.

## **ECN-4495 AXDEFGEN generates invalid COBOL copy file**

Incidents: 3114308

RPI Number: 629342

Product: ACUCOBOL-GT

Module: AXDEFGEN.exe

Machines Affected: Windows only

Known Versions Affected: 10.1.0 and later

**DESCRIPTION:**

AXDEFGEN now generates a valid COBOL copy file. In extend 10.1.0, an enhancement added the LICENSE-KEY phrase to a generated copy file, and if the license key value had quoted strings, AXDEFGEN could fail to write a copy file that could be compiled.

## AcuBench ECN List

This section includes the ECNs relating to AcuBench:

### ECN-WB650 AcuBench Project Settings update

Incidents: 2882068

RPI Number: 1107556

Product: AcuBench

Module: AcuBench.exe

Machines Affected: Windows

Known Versions Affected: 10.0.0 and later

**DESCRIPTION:**

The Compiler page of the Project Settings has been updated.

The Warnings section contains the following updates:

- The **show warnings/suppress warnings** radio buttons have been replaced by the **suppress warnings (-w)** checkbox.
- If you check the **suppress warnings (-w)** checkbox, the other warning checkboxes are disabled.
- The new **-Wu** option (**Unterminated verb**) has been added. This option displays a warning if any of the following verbs are missing an explicit scope terminator: ACCEPT, ADD, CALL, COMPUTE, DELETE, DISPLAY, DIVIDE, EVALUATE, IF, MODIFY, MOVE, MULTIPLY, PERFORM, READ, RECEIVE, RETURN, REWRITE, SEARCH, START, STRING, SUBTRACT, UNSTRING, USE, WAIT, WRITE, and XML GENERATE and PARSE.



**Note:** Only complex constructs are reported; simple constructs, such as MOVE a TO b, are ignored if the terminator is missing.

- The obsolete **-a** option has been removed.

### ECN-WB651 Time controls do not generate correctly

Incidents: 2862847

RPI Number: 1104780

Product: AcuBench

Module: AcuBench.exe

Machines Affected: Windows only

Known Versions Affected: All

**DESCRIPTION:**

When a DATE-ENTRY control has a DISPLAY-FORMAT of TIME, and is given a Value-Variable name, the generated code now includes the VALUE clause.

## **ECN-WB652 Invalid code generated when a quote string is split between lines**

Incidents: 2862847

RPI Number: 1104780

Product: AcuBench

Module: AcuBench.exe

Machines Affected: Windows

Known Versions Affected: All

### **DESCRIPTION:**

When generating code with a long string (using double-quotes) that must be split between lines, AcuBench no longer generates invalid code.

## **ECN-WB653 Storing of files with unknown (or no) extension**

Incidents: 2887698

RPI Number: 1108404

Product: AcuBench

Module: AcuBench.exe

Machines Affected: Windows

Known Versions Affected: 10.0.0 and later

### **DESCRIPTION:**

When AcuBench opens a file with an unknown extension (including no extension), and you are prompted to treat all files with that extension as COBOL or non-COBOL. AcuBench now honors your decision when those files are opened in the future; previously, it did not, and would prompt you again.

## **ECN-WB654 Setting a background for AREA B fails**

Incidents: 2913196

RPI Number: 1108457

Product: AcuBench

Module: AcuBench.exe

Machines Affected: Windows only

Known Versions Affected: 10.1.0 and later

### **DESCRIPTION:**

ECN-WB645 caused a problem with setting the background color for AREA B; this has now been resolved.

## **ECN-WB655 Code Editor tab issues**

Incidents: 2989819

RPI Number: 1108684  
Product: AcuBench  
Module: AcuBench.exe  
Machines Affected: Windows  
Known Versions Affected: 10.0.0 and later

**DESCRIPTION:**

A number of issues around using tabs in the AcuBench Code Editor have been resolved:

- The text block moves the wrong number of spaces - both for tab and back-tab.
- The wrong tab stops show on the ruler bar when going back and forth between editing ANSI and terminal source files.
- After tabbing in terminal source, the column number is reported incorrectly.
- The Tab indicator character is not inserted.
- In terminal format, spaces are not inserted when that setting is selected.
- In ANSI format, tab characters are not inserted when **Keep Tabs** is selected.

## **ECN-WB656 Report Generator reports misalignment**

Incidents: 2885355  
RPI Number: 1108425  
Product: AcuBench  
Module: AcuBench.exe  
Machines Affected: Windows  
Known Versions Affected: All

**DESCRIPTION:**

Page alignment is now accurate when printing long reports on A4 paper, using IE compatibility mode. Previously, the lines would ever-so-slightly move up on the page as the number of pages increased, until eventually the footer was at the top of the page.

## **ECN-WB657 AcuBench crash when compiler generating errors**

Incidents: 3107025  
RPI Number: 1109662  
Product: AcuBench  
Module: AcuBench.exe  
Machines Affected: Windows  
Known Versions Affected: 10.1.0 and later

**DESCRIPTION:**

When compiling a COBOL program that has errors, AcuBench no longer crashes when attempting to show the errors. Previously, it was crashing when trying to set the error line marker.

## ECN-WB658 Breakpoints stopping on wrong line

Incidents: 3106647

RPI Number: 1109485

Product: AcuBench

Module: AcuBench.exe

Machines Affected: Windows

Known Versions Affected: 10.0.0 and later

### DESCRIPTION:

When adding a new breakpoint, AcuBench now stops on the correct line of code when the breakpoint is hit. Previously, it would set the breakpoint on the line after the intended one.

## ECN-WB659 AcuBench crashes when too many REDEFINES specified in Working Storage

Incidents: 3111311

RPI Number: 1109914

Product: AcuBench

Module: AcuBench.exe

Machines Affected: Windows

Known Versions Affected: All

### DESCRIPTION:

AcuBench no longer crashes when a program's Working-storage section contains a data item with more than 50 redefines. Previously, an internal buffer would be written past its boundaries, causing errors.

## ECN-WB660 Incorrect text selection when HOME key goes to column 1 is enabled

Incidents: 3110887

RPI Number: 1109888

Product: AcuBench

Module: AcuBench.exe

Machines Affected: Windows

Known Versions Affected: 10.0.0 and later

### DESCRIPTION:

When the **HOME key goes to column 1** setting (**Tools > Options > Code Editor**) is enabled, then selecting multiple lines of text after the HOME key is pressed now makes the correct selection. Previously, when selecting the text using SHIFT-down arrow, additional columns would also be included at the end of the selection.

## **ECN-WB662 TAB characters handled incorrectly**

RPI Number: 629390

Product: AcuBench

Module: AcuBench.exe

Machines Affected: Windows

Known Versions Affected: 10.0.0 and later

### **DESCRIPTION:**

TAB characters are now expanded correctly. Previously, they were not, which caused a number of errors when editing code that was after the TAB character; for example, the wrong character could get deleted (when deleting), and inserted in the wrong place (when typing).

## **AcuConnect ECN List**

This section includes the ECNs relating to AcuConnect:

### **ECN-AC098 AcuConnect Connection Refused Error**

Incidents: 2869197

RPI Number: 1106146

Product: AcuConnect

Module: AcuRCL

Machines Affected: All

Known Versions Affected: All

### **DESCRIPTION:**

When using AcuConnect Distributed processing, you no longer receive the error: `Connection refused` - perhaps AcuConnect is not running

## **AcuServer ECN List**

This section includes the ECNs relating to AcuServer:

### **ECN-AS160 C\$COPY reports success even when failed**

Incidents: 2989381

RPI Number: 1108662

Product: AcuServer

Module: acuserve.exe

Machines Affected: Windows

Known Versions Affected: All

**DESCRIPTION:**

When connecting to a Windows server, the C\$COPY routine now returns an accurate result if the operation fails. Previously, it could produce a return-code of 0 without the copy actually being successful. This would happen when another client runtime had the file open and was reading records.

## AcuToWeb ECN List

This section includes the ECNs relating to AcuToWeb:

### **ECN-AW003 ACCEPT FROM SCREEN LINE not working**

RPI: 1108010

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The `ACCEPT FROM SCREEN, LINE n` syntax no longer hangs when run through AcuToWeb.

### **ECN-AW004 BITMAP-SCALE property has no effect**

RPI: 1108050

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The `BITMAP-SCALE` property, when set to a non-zero value, now has the desired effect when running in AcuToWeb.

### **ECN-AW005 SELF-ACT property not working as expected**

RPI: 1108053

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The `SELF-ACT` property now gives the same focus to controls when running through AcuToWeb as it does when running through thin client.

### **ECN-AW006 MODIFY CURSOR, CURSOR-ROW, and CURSOR-COL properties not working as expected**

RPI: 1108055

Product: AcuToWeb  
Module: AcuToWeb  
Machines Affected: all

**DESCRIPTION:**

The MODIFY CURSOR, CURSOR-ROW, and CURSOR-COL properties on Entry fields are now working as expected in AcuToWeb applications.

## **ECN-AW007 Radio button is difficult to see when BITMAP property is set**

RPI: 1108058

Product: AcuToWeb  
Module: AcuToWeb  
Machines Affected: all

**DESCRIPTION:**

Radio buttons now display clearly when the BITMAP property is set.

## **ECN-AW008 SEPARATION grid property has no effect**

RPI: 1108059

Product: AcuToWeb  
Module: AcuToWeb  
Machines Affected: all

**DESCRIPTION:**

The SEPARATION grid property now has the desired effect when running in AcuToWeb.

## **ECN-AW009 Using URLs perform slower than using the Connect button**

RPI: 1108178

Product: AcuToWeb  
Module: AcuToWeb  
Machines Affected: all

**DESCRIPTION:**

Using a generated AcuToWeb URL to start your COBOL application now has a similar initialization time to when using the **Connect** button from the AcuToWeb gateway.

## **ECN-AW010 Problems restoring minimized windows**

RPI: 1107697

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

You can now use the **Shift + Tab** key combination to toggle between windows running in AcuToWeb. Previously, if you were running one screen maximized, and then minimized a second screen, it was not possible to restore that second screen without first minimizing the main screen; this new key combination enables you to easily switch between the windows within your browser, giving a similar effect to the **Alt + Tab** key combination in Windows.

## **ECN-AW011 Multiline property on Radio buttons not working**

RPI: 1108057

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The MULTILINE property is now working as expected when applied to radio buttons.

## **ECN-AW012 Multiline property not working on push buttons**

RPI: 1108332

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The MULTILINE property is now working as expected when applied to push buttons, for applications running through AcuToWeb.

## **ECN-AW013 Tab key not working on check boxes**

RPI: 1108341

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The **Tab** key is now working as expected when focus is on a check box.

## **ECN-AW014 Sizing differences when using AcuToWeb**

RPI: 1108343

Product: AcuToWeb  
Module: AcuToWeb  
Machines Affected: all

**DESCRIPTION:**

The following sizing differences when comparing an application running through AcuToWeb and through acuthin have been rectified:

- Multi-column list-boxes appear noticeably smaller when run through AcuToWeb.
- Entry-field, date control, combo-box, list-box rows, and grid rows are slightly smaller when run through AcuToWeb.
- Font is slightly larger when run through AcuToWeb.

## **ECN-AW015 Separator lines not working for multi-column list boxes**

RPI: 1108344

Product: AcuToWeb  
Module: AcuToWeb  
Machines Affected: all

**DESCRIPTION:**

A multi-column list box now shows all separator lines for the control after focus has changed to another tab. Previously, when the list box on display and you changed to another tab, the separator between columns 1 and 2 remained, but the rest of the separator lines disappeared for lines that had data.

## **ECN-AW016 Display problems when switching tab controls**

RPI: 1108345

Product: AcuToWeb  
Module: AcuToWeb  
Machines Affected: all

**DESCRIPTION:**

When switching tab controls, the containing grid is no longer redrawn each time. Previously, it would, causing an undesirable flickering effect.

## **ECN-AW017 Direct printing ignores PAGE\_EJECT\_ON\_CLOSE setting**

RPI: 625692

Product: AcuToWeb  
Module: AcuToWeb  
Machines Affected: all

**DESCRIPTION:**

Direct printing through AcuToWeb no longer ignores the PAGE\_EJECT\_ON\_CLOSE setting.

## **ECN-AW018 Backspace not erasing characters on Character screens**

RPI: 625693

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

For Character screens running through AcuToWeb, the backspace key now correctly erases the characters.

## **ECN-AW019 The MODIFY verb using the UPPER or LOWER phrases has no effect on existing text**

RPI: 1108054

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The MODIFY *<graphical-component>*, using the UPPER or LOWER phrases is now working as expected.

## **ECN-AW020 Default window color**

RPI: 1108374

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The default window color is now showing the same as when the application is run through the thin client or local runtime.

## **ECN-AW021 Data input issues**

RPI: 625973

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

In character applications, you can now input the full compliment of characters for fields set up for two characters. Previously, it was only allowing you to input a single character.

## ECN-AW022 Page-up and Page-down keys not responding

RPI: 625974

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

In character applications, when browsing through data, the page-up and page-down keys now work as expected.

## ECN-AW023 Character screen formatting issues

RPI: 625976

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

In character applications, items designated for the lower right corner of the screen now display as expected. Previously, they would be display higher than expected.

## ECN-AW024 Key letter shortcuts not working

RPI: 1108470

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The ALT+D and ALT+T shortcut keys now work as expected in most cases.



**Note:** In the Microsoft Explorer and Microsoft Edge browsers, ALT+D performs a different function (changes focus to the address bar); this is by Microsoft's design.

## ECN-AW025 Mouse control not working to select fields

RPI: 625972

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

Using the mouse to select fields is now working as expected. Previously, in certain circumstances, the mouse would fail to select a field.

## **ECN-AW026 AcuToWeb hangs when modifying the title of a form**

RPI: 1108687

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: All

**DESCRIPTION:**

A program running through AcuToWeb no longer hangs when attempting to modify the title a form.

## **ECN-AW027 SCROLL 0 has no effect when SCREEN is set**

RPI: 1108652

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The SCROLL 0 configuration variable is now working as expected when SCREEN is set. Previously, items were sometimes shifted upward when the character screen was displaying data on line 24.

## **ECN-AW033 Log file not working in Internet Explorer 11**

RPI: 1108801

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The **Download log** option is now working as expected from the Logging Console when you are running through Internet Explorer 11.

## **ECN-AW034 Sizing of entry fields incorrect**

RPI: 1108874

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

Entry fields are now correctly sized when running through AcuToWeb. Previously, they were appearing slightly larger than when running through the normal runtime or thin client, and thus had the potential to overlap.

## **ECN-AW035 TREE-VIEW styles missing**

RPI: 625165

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The following TREE-VIEW styles are now available via an AcuToWeb cascading style sheet:

- Tvs\_SHOW\_LINES
- Tvs\_SHOW\_SEL\_ALWAYS

## **ECN-AW036 ERASE LINE phrase not working**

RPI: 1108906

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The ERASE LINE statement is now working as expected through AcuToWeb. Previously, instead of the desired effect, it would displayed black lines.

## **ECN-AW037 Wrong icons showing on the toolbar**

RPI: 1109079

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The correct icons are now displayed on a toolbar running through AcuToWeb.

## **ECN-AW038 Data in entry-fields displayed incorrectly**

RPI: 1109077

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

Data in entry-fields now displays consistently with how it displays when running through thin client or the normal runtime. Previously, the padding around the text was different.

## **ECN-AW039 List box size issues**

RPI: 1109064

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

List boxes now display consistently with how they appear when running through thin client or the normal runtime.

## **ECN-AW040 Up and Down arrows not working whilst debugging**

RPI: 1109053

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

Whilst running in Debug-mode, the SPACEBAR, and UP and DOWN navigation arrows now work as expected.

## **ECN-AW041 Program hangs when a call is made to WIN\$PRINTER**

RPI: 1109078

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

AcuToWeb applications no longer hang when attempting to print. Previously, a call to WIN\$PRINTER would cause the program to hang.

## **ECN-AW046 Additional rows displayed for LIST-BOX**

RPI: 1109283

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

LIST-BOX controls now display consistently between AcuToWeb and the normal runtime. Previously, additional rows would be displayed when running through AcuToWeb.

## **ECN-AW047 Runtime hanging if AcuToWeb Desktop not running**

RPI: 628047

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

It is now possible to continue working after you receive the message `Function not available. AcuToWeb Desktop not started`, without having to restart the browser. The message is generated if the AcuToWeb Desktop is not running and you have started a program that requires it. Previously, when you clicked **OK** to clear the message, the runtime could hang.

## **ECN-AW048 JPG file formats not printing**

RPI: 1109286

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

JPG file formats now print as expected through AcuToWeb. Previously, bitmap files would print, but not JPGs.

## **ECN-AW049 NOTIFY-CHANGE on entry-field not working**

RPI: 1109438

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The NOTIFY-CHANGE style for entry-field controls is now working through AcuToWeb, as expected.

## **ECN-AW050 AcuToWeb license renewals**

RPI: 628317

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

License renewal for AcuToWeb is now working as expected.

## **ECN-AW057 DECIMAL POINT IS COMMA not handled correctly**

RPI: 1109664

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The DECIMAL POINT IS COMMA clause is now handled correctly through AcuToWeb. Previously, the behavior was not consistent to that running through AcuThin or the normal runtime.

## **ECN-AW058 Zeroes truncated in grid columns**

RPI: 1109639

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The Grid control now correctly sizes the column width so no values are truncated.

## **ECN-AW059 Click and double-click not working**

RPI: 1109595

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The click and double-click actions now working as expected when running through AcuToWeb.

## **ECN-AW060 Web-browser mailto: syntax not working**

RPI: 1109691

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

The `DISPLAY web-browser`, value `"mailto:info@acucorp.com"` syntax is now working as expected via AcuToWeb, as long as you have Microsoft Outlook and the AcuToWeb Desktop running on your client.

## **ECN-AW061 CSS information not copied to new configuration file**

Incidents: 3100777

RPI Number: 1108875

Product: AcuToWeb

Module: acutoweb.exe

Machines Affected: Windows

Known Versions Affected: 10.1.0 and later

**DESCRIPTION:**

When you select an existing `gateway.conf` file as a starting point when creating a new service, and select **Yes** to use the existing values, the CSS information in the original file is copied to the new file; previously, it would not.

## **ECN-AW062 AcuToWeb styles not showing through IIS**

RPI: 1109824

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

Styles applied through a theme are now showing correctly when running your AcuToWeb application through IIS.

## **ECN-AW063 Call to registry hangs on Windows 10**

RPI: 1109896

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

Using the `DISPLAY_REG_OPEN_KEY_EX` library routine no longer hangs on Windows 10.

## **ECN-AW064 Keyboard navigation in Tree View controls not working**

RPI: 1109955

Product: AcuToWeb  
Module: AcuToWeb  
Machines Affected: all

**DESCRIPTION:**

The Backspace and arrow keys are now working as expected when navigating a Tree View control through AcuToWeb.

## **ECN-AW066 Scrollbar missing from window**

RPI: 1110043  
Product: AcuToWeb  
Module: AcuToWeb  
Machines Affected: all

**DESCRIPTION:**

AcuToWeb now supports scrolling windows.

## **ECN-AW067 Unable to navigate menu with cursor keys**

RPI: 1110098  
Product: AcuToWeb  
Module: AcuToWeb  
Machines Affected: all

**DESCRIPTION:**

AcuToWeb now allows you to navigate a menu using the cursor keys.

## **ECN-AW068 Line style incorrect**

RPI: 1110017  
Product: AcuToWeb  
Module: AcuToWeb  
Machines Affected: all

**DESCRIPTION:**

AcuToWeb now correctly displays a solid line where appropriate, instead of a dotted line.

## **ECN-AW069 Text messages not showing over bitmap buttons**

RPI: 1110136  
Product: AcuToWeb  
Module: AcuToWeb  
Machines Affected: all

**DESCRIPTION:**

Text messages now show correctly when placed over a bitmap button.

## **ECN-AW071 Variable monitoring not working correctly in the debugger**

RPI: 629590

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

When placing a monitor on a variable, the value now displays in the correct pane when debugging via AcuToWeb.

## **ECN-AW074 Slow performance whilst debugging**

RPI: 1110509

Product: AcuToWeb

Module: AcuToWeb

Machines Affected: all

**DESCRIPTION:**

Performance times when stepping on a MOVE statement whilst debugging via AcuToWeb have been improved.

## **AcuXDBC ECN List**

This section includes the ECNs relating to AcuXDBC:

### **ECN-XD111 AcuXDBC server crash**

RPI: 1108447

Product: AcuXDBC

Module: AcuXDBC

Machines Affected: all

**DESCRIPTION:**

A problem with XDBC Server intermittently has been fixed. Previously, the server would not run in the background, and as such would not be terminated if the parent process that launched it was interrupted. This was causing subsequent problems.

# Updates and SupportLine

Our Web site gives up-to-date details of contact numbers and addresses.

## Further Information and Product Support

Additional technical information or advice is available from several sources.

The product support pages contain a considerable amount of additional information, such as:

- The *Product Updates* section of the Micro Focus SupportLine Web site, where you can download fixes and documentation updates.
- The *Examples and Utilities* section of the Micro Focus SupportLine Web site, including demos and additional product documentation.
- The *Support Resources* section of the Micro Focus SupportLine Web site, that includes troubleshooting guides and information about how to raise an incident.

To connect, enter <http://www.microfocus.com> in your browser to go to the Micro Focus home page, then click *Support*.



**Note:** Some information may be available only to customers who have maintenance agreements.

If you obtained this product directly from Micro Focus, contact us as described on the Micro Focus Web site, [www.microfocus.com](http://www.microfocus.com). If you obtained the product from another source, such as an authorized distributor, contact them for help first. If they are unable to help, contact us.

Also, visit:

- The Micro Focus Community Web site, where you can browse the Knowledge Base, read articles and blogs, find demonstration programs and examples, and discuss this product with other users and Micro Focus specialists.
- The Micro Focus YouTube channel for videos related to your product.

## Information Needed by Micro Focus SupportLine

When contacting Micro Focus SupportLine, please include the following information if possible. The more information you can give, the better Micro Focus SupportLine can help you.

- The name and version number of all products that you think might be causing an issue.
- Your computer make and model.
- System information such as operating system name and version, processors, and memory details.
- Any detailed description of the issue, including steps to reproduce the issue.
- Exact wording of any error messages involved.
- Your serial number or works order (WO) number.

To find out these numbers, look in the subject line and body of your Electronic Product Delivery Notice email that you received from Micro Focus, or on the box in which the product was supplied, and on the red card supplied in the DVD case .

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