



# BRUCONTROL

Process Automation Made Personal

## BruControl v1.2 Beta Installation

Updated: August 29, 2021

Notes regarding upgrades from 1.1.0.9 to 1.1.0.15:

1. This version **REQUIRES** firmware versions 450 or higher.
2. This version uses a new license server.
  - a. This will require you to re-activate upon first time running this version.
  - b. If using Data Exchange (Professional license), you will need to disable and re-enable the service.
  - c. Please contact BruControl at [info@brucontrol.com](mailto:info@brucontrol.com) with any issues with activation.
3. Digital Outputs' Dual Throw Port field will default to blank. For ALL established Digital Outputs, complete these steps:
  - a. Disable the Element. Change the Dual Throw Port from blank to None. Then re-enable it the Element.

Notes regarding all v1.2 Beta versions:

4. This version utilizes an SQL database for data storage rather than individual files. All existing data will not carry over as a result. Therefore, do not perform the upgrade if the historic data must be maintained (e.g., in the middle of an active fermentation).
5. It is important to follow the steps below and ensure that communication with the new database is functioning properly.
6. Element appearances may change as default settings become reset. Please make sure to take screen shots of all Workspaces and record the default appearance settings (Settings... Environment... Element Appearance).
7. Per the change log, logging is now a setting. It is applied on an Interface level and is off by default. If desired to continue log file recording, set each switch on (Settings... Interfaces...[interface name]... Edit... Diagnostic Logging).

When first upgrading from v1.1 to v1.2, it is important to follow these instructions completely:

1. Close the existing BruControl application if running. Select "DISABLE ALL AND SHUTDOWN" or "SHUTDOWN APP ONLY" as appropriate.

2. Backup existing BruControl data folder. This folder is located in the user's "Documents" folder. Make a duplicate of this folder and copy it to a safe location, preferably on another drive (USB key, network share, cloud store, etc.). DO NOT SKIP THIS STEP!
3. Backup existing BruControl Application folder. This folder is where the BruControl application files are located, which was selected upon initial install. Make a duplicate of this folder and copy it to a safe location, preferably on another drive (USB key, network share, cloud store, etc.). Once backed up, rename this folder to a new backup name, such as 'BruControl backup'.
4. Create a new BruControl application folder and extract the v1.2 BruControl application files there. Do not delete the existing version in step 3 in case it needs to be restored.
5. Note: Existing Element Data will not carry over from the previous version. Therefore, graphs will reset and not display historic data.
6. For newer computers compatible with SQL Server Express 2019:
  - a. BruControl now uses a LocalDB database (which is a subset of SQL Server Express 2019) for data storage. This is more efficient than the file-based storage in previous versions.
  - b. BruControl will require an instance of SQL Server 2019 LocalDB to be installed on the local computer.
    - i. The SQL Server 2019 LocalDB requires "Microsoft Visual C++ Redistributable for Visual Studio 2015, 2017 and 2019". Select the 64 bit or 32 bit version, depending on your computer OS (Settings... About). Download and install from here:
      1. 64-bit: [https://aka.ms/vs/16/release/vc\\_redist.x64.exe](https://aka.ms/vs/16/release/vc_redist.x64.exe)
      2. 32-bit: [https://aka.ms/vs/16/release/vc\\_redist.x86.exe](https://aka.ms/vs/16/release/vc_redist.x86.exe)
    - ii. To install SQL Server 2019 LocalDB, download and install from: <https://download.microsoft.com/download/7/c/1/7c14e92e-bdcb-4f89-b7cf-93543e7112d1/SqlLocalDB.msi>
  - c. At startup, if it doesn't already exist, BruControl will create a new database within the normal data directory, under the file:  
<user>/Documents/BruControl/Data/Data.mdf.
  - d. OPTIONAL: Relocating the database file:
    - i. By default, BC will attempt to connect to the database within the standard data directory noted above. The default connection string for accessing this database using SQL Server 2019 LocalDB is:

```
Data Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename={0};Integrated
Security=True
```

- ii. The {0} portion of the string references the path to the Data.mdf file. BruControl will interpret {0} as default and use the default location of the file, and use file location as noted in 6c above. The file location can be overridden by editing the connection string in the settings.brusettings file, located here: <user>/Documents/BruControl/settings.brusettings.

This string within the <DBConnection> section of the file. Specify a different location by replacing {0} with the full path to the file location.

7. For older computers or those incompatible with SQL Server Express 2019, especially 32-bit versions, the LocalDB component of SQL Server 2012 will need to be used. BruControl can be configured for SQL Server 2012 by using the following steps:
  - a. Download and unzip this package into a new, temporary folder:  
<https://brucontrol.com/wp-content/uploads/2020/06/SQLServer2012.zip>
  - b. Change BruControl v1.2 to use SQL Server 2012 LocalDB by editing the overriding the default connection string in the settings file 'settings.brusettings', located here: <user>/Documents/BruControl/settings.brusettings. Change the line:

```
<DBConnection i:nil="true" />
```

to read:

```
<DBConnection>Data Source=(LocalDB)\v11.0;AttachDbFilename={0};Integrated Security=True</DBConnection>
```

- c. Note: compared to the default connection string, the 'MSSQLLocalDB' is being changed to 'v11.0' to specify SQL Server 2012 instead of 2019.
    - d. Replace the default empty database file with one that is compatible with SQL Server 2012. The 2012 database file is provided within this package. Copy it to this folder: <user>/Documents/BruControl/Data/Data.mdf.
8. Execute the new version of BruControl, and carefully check that all Elements, Scripts, Workspaces, etc. are functioning as expected.
  - a. If not, Restore the previously back-ed up folder if needed.
9. Troubleshooting
  - a. BruControl v1.2 utilizes the .NET Framework 4.4. If an older or un-updated computer is being used, this may need to be downloaded and installed from here: <https://www.microsoft.com/en-us/download/details.aspx?id=48130>
  - b. The controller log (located in <user>/Documents/BruControl/Logs, with a prefix of 'controller.' and suffix of the date) will document any errors connecting to the new database.
  - c. If the installation computer issues a version error, please see: <https://weblogs.asp.net/dixin/installing-sql-server-2017-2019-localdb-and-resolve-the-engine-versioning-problem>

### Change Log

Fixed: Hysteresis result is not a boolean type

Fixed: PID Calc and Out Times

Fixed: Overlapping alarms prevent second+ alarms sounds and email

Fixed: Certain text characters pasted in script causes crash

Fixed: Graph of Global on different Workspace doesn't display

Fixed: Script window moving elements when scroll bars needed

Fixed: Moving an element across workspaces causes fault  
Changed: Swap Settings/Menu icons  
Changed: Updated to use .NET Framework 4.4  
Changed: Updated to use new controls library  
Changed: License server  
Added: Automatic Lock  
Added: Direct script command  
Added: SQL Database for data  
Added: Switch to disable log files (default)  
Added: String text line feed  
Added: Element Display Name (alias) field  
Added: Script running status available in another script  
Added: Dual Throw output (requires FW 45K+)  
Added: Device Element Enable Switch  
Added: Choice of 3 or no Alarm sounds, plus script control  
Added: Element location and size in properties  
Added: Use PWM (if available) in PID and Deadband (requires FW 45K+)  
Added: Direct command (to interface) via script  
Added: Script window height in settings  
Added: Profile Element (not complete yet)  
Added: Evaluation license requires no activation for 15 days

Contact BruControl at [info@brucontrol.com](mailto:info@brucontrol.com) with any questions or concerns.