

bLicense is a driver designed to facilitate the purchase, management and installation of license keys for all BNet Solutions products. Together, the bLicense driver, the BNet License Server and PayPal integration combine to provide a payment and license process that is as automated and painless as possible.

PROPERTIES

DRIVER SETUP

Upgrade Mode	BNet Solutions drivers can automatically update themselves. Options are “Automatic”, “Minor Only” and “Upgrade Now”. See “Upgrade Mode” section below
Admin Server Enabled	Enables / Disables the driver’s Admin Server. See “Admin Server” section below
Admin Port	Listening port assigned to Admin Server
Admin Token	Token required to access the driver’s Admin Server

INSTALLED PRODUCTS

Installed Driver Name	List of installed BNet Solutions drivers
Installed Driver Version	Version of driver selected in “Installed Driver Name”
Installed Timestamp	Install date/time of driver selected in “Installed Driver Name”
Installed License Valid	License state of driver selected in “Installed Driver Name”

LICENSE PURCHASE

Purchase Driver Name	List if installed but not license BNet Solutions drivers. See “Refresh License Information” Action
Purchase Driver Version	Current driver version of “Purchase Driver Name”
Purchase Options	Type of purchase, either “Full” or “Subscription”. Not all drivers are available as a subscription
Purchase Detail	Details of the purchase terms
Email	Email address to receive the PayPal invoice or subscription confirmation

DEBUG SETTINGS

Debug Mode	Sets where the driver outputs debug information. See “Troubleshooting” section below for more information
Debug Level	Sets how much debug detail the driver outputs

ACTIONS

REFRESH LICENSE INFORMATION

This action directs bLicense to download the current BNet Solutions products list and searches your Control4 project for those products. bLicense then asks each installed driver for its license status. You can view the license status for each driver in the ‘Installed Products’ section of the

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Properties page or the Lua Output. The license status is also uploaded to the BNet Solutions License Server for verification.

bLicense does NOT proactively search for new driver instances so you must run this action AFTER you install a new BNet Solutions product.

Any installed but unlicensed BNet Solutions products can be viewed in the 'License Purchase' section of the Properties page along with the available driver version and driver cost.

EMAIL PURCHASE INFORMATION

If you are interested in purchasing a license for an installed BNet Solutions product, select that driver in the 'License Purchase' section of the Properties page and enter your email address. Run the 'Email Purchase Information' Action and you will receive an email with the product and purchase information and a PayPal link to complete the driver purchase. After the purchase is complete, PayPal will notify the BNet License Server who will generate and email you your license key.

PayPal's notification of a completed payment is typically very quick. However, PayPal specifically states they have the right to delay and review transactions. If, after your purchase is complete, you do not receive your license key in a reasonable about of time, contact me directly.

GET PURCHASED LICENSE KEYS

At any time, you can run this action to retrieve and view already purchased license keys for your BNet Solutions products. bLicense will send an activation message to any purchased but unlicensed drivers in your project.

You can also use the license key from the payment confirmation email or Lua Output to manually activate driver instances.

*License information is best viewed with Debug Level set to Info

ADMIN SERVER

BNet Solutions drivers' have a built-in webserver that looks and behaves like the Properties, Actions and Lua Output tabs for the driver in Composer. The Admin Server's default port for the bLicense driver is 40800 and is configurable in the driver's properties. Using a web browser, navigate to [http://\[controller ip\]:40800](http://[controller ip]:40800) where "controller ip" is the IP Address of your Control4 Director (EA5, EA3, EA1, etc). For example, <http://192.168.1.100:40800>. The Admin Server is protected by a challenge page that requires a token to continue. By default, the token is "bLicenseAdmin". Once authenticated, the token is stored in a cookie (technically hashed, then stored) so you won't need to log in every time. The token is configurable via the driver's property page. The Admin Server is enabled by default but can be disabled entirely via the driver's property page.

KNOWN ISSUES AND LIMITATIONS

- Drivers to be licensed must be installed from their original file name, for example "bNexia.c4z" or "bRoomba.c4z". Otherwise, bLicense will not recognize it as a valid driver. This is especially important with subsequent driver versions as many OSs will not overwrite downloaded files but will rename the newly downloaded file to something like driver(1).c4z.
- After the driver is updated via "Update Now", dynamically populated drop-down boxes may appear blank. Refresh the project (File/Refresh) or simply change focus away from then back to this driver to repopulate. This seems to be a Composer issue.

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UPGRADE MODE

BNet Solutions drivers can automatically update themselves. New driver functionality or capability is typically packaged as an incremental "Major" version (v3, v4 etc). "Minor" versions (v2.3, v2.4) are typically maintenance releases that update underlying libraries, address a specific issue or usability concern.

- Automatic When "Automatic" is selected, the driver will upgrade/update itself when a new version is available. "Automatic" Upgrade Mode is strongly suggested.
- Minor Only Restricts the driver from upgrading between major versions but allows updates between minor versions.
- Update Now Checks for and upgrades to any newer Major or Minor version.

TROUBLESHOOTING

All BNet Solutions products have an additional 'Submit' Debug Mode. With this mode selected, the driver creates a unique log file to capture the Lua output based on the selected Debug Level (usually set to "5 - Debug"). Once 'Submit' Debug Mode is deselected, either manually or when the Debug Timer expires, the Submit Debug Log is uploaded to the BNet Solutions Server for analysis.

The server notifies me when Submit files are uploaded but if you have not purchased a license, I have no way to reach out to you for troubleshooting so please email me your contact information.

LEGAL

By using this driver, you are indicating that you have read and agree with the Policies and Terms that govern its usage as published [here](#).

MY CONTACT INFORMATION

You can reach me at blucas@bnet4solutions.com for comments or questions.

CHANGE LOG

- v1 - 1/20 Initial Release
- v2 - 5/19 Incorporated License Server and PayPal integration
- v3 - 7/19 Updated architecture
- v4 - 11/19 Added auto-updated functionality
- v5 - 1/19 Added subscription functionality