



Manufacturer:	Apple
Model Number(s):	Apple TV models running tvOS16
Control Platform:	Control4
Firmware Version:	3.3 (older may work but not tested or supported)
Driver Developer:	Intrinsic Dev, Part of Intrinsic Group Limited
Document Revision Date:	13 th January 2023

> OVERVIEW

This driver allows a Control4 system to communicate with an Apple TV running tvOS16 to communicate via ethernet. WiFi is supported, but a cabled ethernet connection is recommended.

Please note this driver requires an active internet connection.

> SUPPORTED FEATURES

Navigation & Transport control:

Cursor Up, Down, Left & Right
 Select & Cancel
 Rewind & Fast Forward
 Play
 Pause
 Home and Menu
 Stop
 Info (side menu)
 Move (Long Press Enter)

Please note - this is an Intrinsic Standard Integration (Level 3), that makes use of an unofficial public API. The API is publicly available online but is not officially released by Apple. We always recommend advising end users of this and ensuring alternative control options are in place as a back-up.

ANY FEATURE NOT SPECIFICALLY NOTED AS SUPPORTED SHOULD BE ASSUMED TO BE UNSUPPORTED.

> DRIVER SUPPORT

This driver is fully supported via our online ticketing system. If you require assistance with this driver please submit a support request at www.intrinsicdev.com/support.

> CONTINUED DEALER SUPPORT

Intrinsic Dev offer free license keys for showrooms and dealer's own homes. To obtain your free license keys simply drop us a support ticket. All our drivers/modules are fully supported by our online ticketing system.

> DISCLAIMER

Intrinsic Dev's drivers are created to the highest standard, developed with industry leading practices.

By installing this driver, you agree to our full Terms and Conditions, a copy of which can be found at the end of this document.

> DRIVER LICENSE

This driver requires a license key to function. Pricing and license keys can be obtained by visiting www.intrinsicdev.com. License keys are issued on a per controller basis. You only need a single license key for multiple installations on the same controller.

> DEVICE SETUP

Recommended Action: Static IP

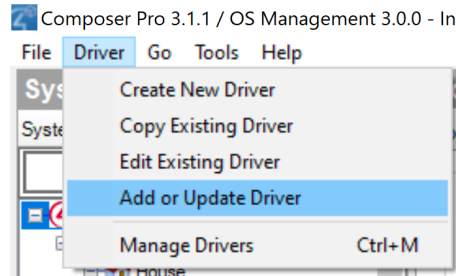
We recommend you assign a static IP to your Apple TV and that you use a wired connection only. Please ensure the ATV is not running both Wi-Fi and Ethernet. This happens when a unit setup for Wi-Fi is plugged is then connected by ethernet. If in doubt factory reset the device.

Device Naming

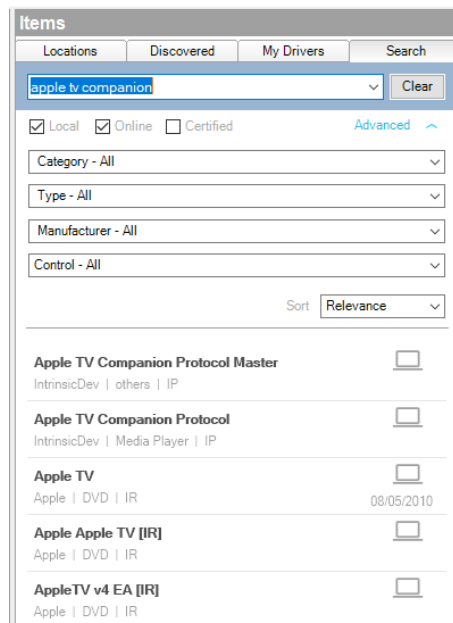
Each Apple TV must be setup and given a unique name.

> INSTALLATION PROCESS

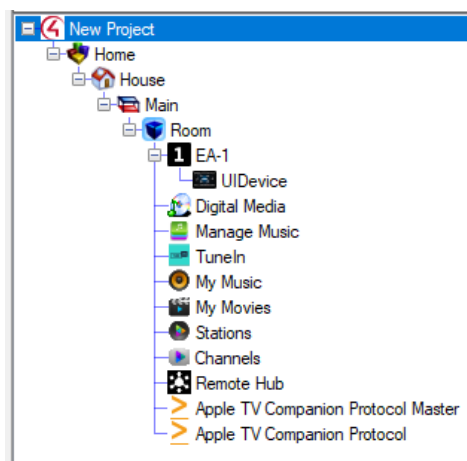
1. Download the latest version of the driver from www.intrinsicdev.com
2. Under the **Driver Tab** click **Add or Update Driver** and select the files you have downloaded, add each one in.



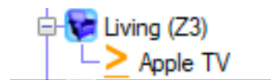
3. In **System Design** mode click **Search** in the very top right corner and type "Apple".



4. Install one copy of the **Apple TV Companion Protocol Master** driver in the project.



5. Install as many **Apple TV Companion Protocol** drivers as needed by dragging to the correct room or by double clicking.



6. On the **Apple TV Companion Protocol Driver**, navigate to the **Properties** tab and check that the driver is licensed. This driver is powered by the Intrinsic(Athena) cloud and will auto detect if you have purchased a license for your systems MAC address.

Advanced Properties

Properties Documentation Lua

License Info	Driver Licensed
Driver Status	Driver OK
IP Address	192.168.1.241
Trace Level	0 - Off

If you have not already purchased a license it will show an error. Please navigate to www.intrinsicdev.com to rectify and within a few minutes of order completion the driver will update and activate. You do not need to enter any information manually or make changes to the driver.

7. In the **Properties** tab set the **IP address** of the unit and click **Set**.

Advanced Properties

Properties Documentation Lua

License Info	Driver Licensed: 00:0f:ff:57:a3:ef Ver:20120102
Driver Status	Driver OK
IP Address	192.168.1.36
Firmware	18K5780cH

8. Use the drop-down menus in the **Properties** tab to select the behaviour of the remote control buttons and click **Set**.

Hash Button	Menu
PVR Button	Menu
Cancel Button	Menu
Recall Button	Menu
Star Button	Menu
Menu Button	Menu
Custom Button 1	Menu
Custom Button 2	Menu
Custom Button 3	Menu
Guide Button	Menu

9. There is a **Trace** setting for both the **Apple TV Companion Master** Driver and the **Apple TV Companion Protocol** Driver – it is important to remember to disable this after use and not to leave this running.

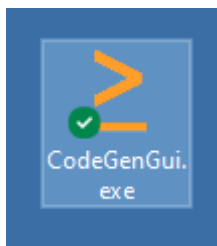
Pairing:

Each instance of the Companion driver (not the master) requires a pairing key for the Apple TV device it is to control.

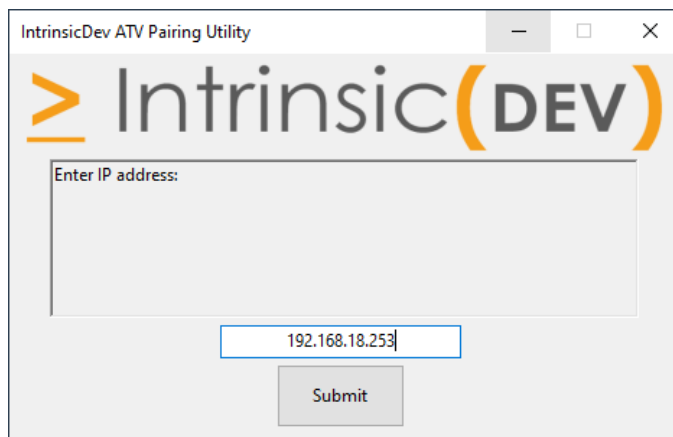
Please note – Pairing tool requires a native windows machine to run (not supported on parallels).

Please follow the below steps to obtain the necessary keys:

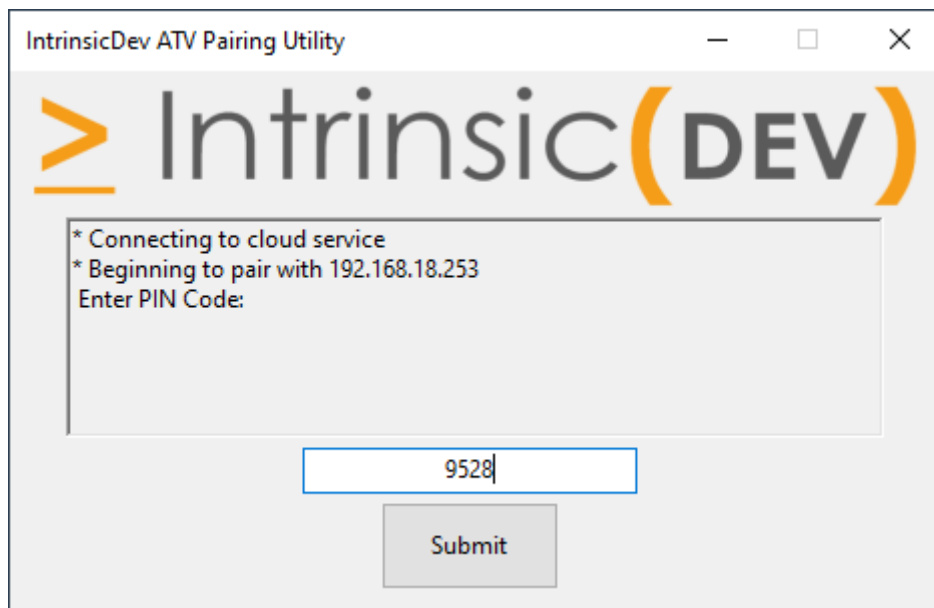
1. The download folder will contain both the driver and a standalone Windows executable.



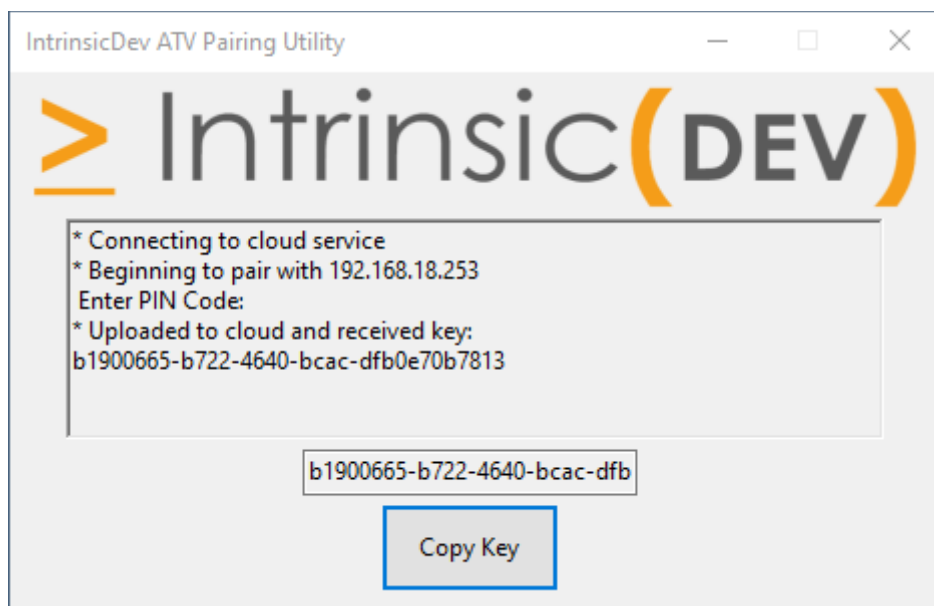
2. Double click this to run. Read and agree to any windows firewall prompts that may appear in order to proceed. Once running the application will require you to enter the IP address of the Apple TV you wish to setup pairing with.



3. Enter the IP address of your Apple TV and click submit. The Apple TV will then show a pin number on screen. Enter this pin into the pairing app and click submit.



4. The app will when pair with the Apple TV and save the pairing key to our cloud server. The application will give you a reference key to enter into the driver. You can click "Copy Key" to copy the key to the clipboard.



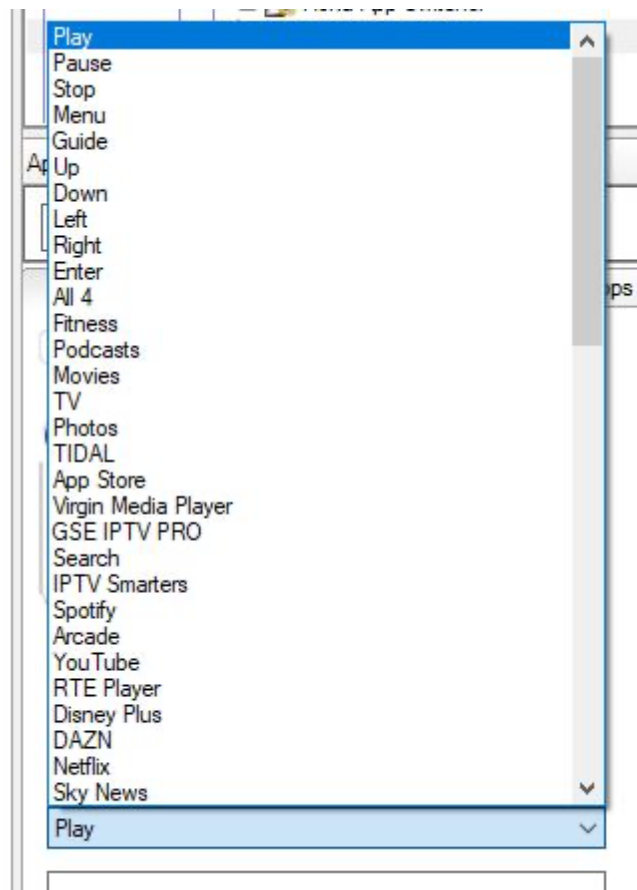
5. Go back to composer and enter the key into the driver.

Properties	
Advanced Properties	
Properties	Actions Documentation Lua
License Info	Driver Licensed: 00:0f:ff:92:59:38 Ver:22090103
Driver Status	Driver OK
IP Address	192.168.18.253
Key	964b29cc-31dc-4f64-9381-40eb06671855

6. The driver will then restart, and you should have control over the Apple TV.

Direct app launching

This driver offers limited direct app launching functionality. The quick launch codes needed for popular apps are available in the programming interface in Composer and can be connected with a custom button to provide a direct launch option.



> DRIVER SETTINGS AND FEEDBACK

Driver State	Driver in use - selected in a zone.
Driver Connection	Driver active - connected to ATV.
Current Port	49152
Port Scan Status	Good - Found within the last minute
Trace Level	3 - All
Skip Interval	15
Driver Inactive Timer	60
Switch On Command	None
Switch Off Command	Guide

Driver State – This is referring to whether there is an active zone with the ATV selected. This information is provided to the driver by Director and lets the driver know when it needs to try and maintain a connection.

If the driver state shows connected even when all zones in the viewer are off, please check your zone setup. This WILL cause the driver to lose control.

Driver Connection – Confirms ATV connection status.

Current Port – This is the network port number that the Apple TV currently uses. Our driver has the ability to scan and detect the port regardless of its value. This is an advantage over drivers that cannot scan for ports, but instead port hop through a small range of port numbers. This ability vastly reduces the need to reboot your Apple TV.

Port Scan Status – Port scanning is done every 15 seconds by the Apple TV comm device. It is a very simple process and requires very little resources. An Apple TV can move port at any time, no notice is given by the device that this is going to happen. The master driver scans and reports the current port to the driver, if the port has changed the driver will close the network socket and set up a new one for the new port number.

In testing we noticed the Apple TV port to be fairly stable, except when the unit has multiple connections, i.e. connections from a control system and iOS app at the same time, or multiple control systems.

We have observed an Apple TV Control API crash in which the unit continues to work and will take commands from an IR remote but not over IP. In this state the iOS is also unable to connect to the unit. We also noted that the Apple TV port number will start to increase each time the driver attempts to reconnect, so we have built in feedback to warn you when the driver believes this has happened.

If the driver has not had a check in from the master driver for 1 minute or more it will report a fault. This means that the comm device has done a search for the Apple TV using a protocol

called mDNS and did not get a reply. This scenario is NOT a driver issue. A UDP packet was sent from the driver to the Apple TV and a reply was never received. It is possible for UDP packets to be lost; hence the scan time is 15 seconds, and the timeout is set at 1 minute, allowing for packet loss. If you are experiencing this, please check your network settings as per the discovery section above. If there have been no network changes, please factory reset your Apple TV.

Trace Level – For Intrinsic or Control4 support use only.

Driver Inactive Timer – As described above, the driver will disconnect after a period of inactivity which this drop down allows you to adjust.

Switch On Command/Switch Off Command – The driver can automatically send a button press when the device is first selected and also when it's switched off.

> COMMON MISTAKES

1. Incorrect IP address entered
2. Active internet connection required
3. Apple TV is running an unsupported firmware (tvOS 14 or older)
4. If you are experiencing issues do NOT delete and reinstall the driver a number of times. You will most likely have an Apple TV that needs factory resetting or a network issue.
5. Please ensure the ATV is not running both Wi-Fi and Ethernet. This happens when a unit setup for Wi-Fi is plugged is then connected by ethernet. If in doubt factory reset the device.

> TERMS AND CONDITIONS

This page gives you all the information you need to know about Intrinsic Dev and the legal Terms and Conditions through which we sell the software listed on our website to you. These Terms apply to any contract of sale for products that exists between us and you.

Please read these Terms and Conditions carefully, if you do not agree with something written within them do not use our website or install our software. Before completing your purchase you will be asked to confirm you have read and understood these Terms, unfortunately if you refuse our Terms you will be unable to complete a transaction on our website.

We recommend you print a copy of our Terms and Conditions or save them to your computer so you can refer to them in the future as necessary.

We reserve the right to change these Terms and Conditions and recommend you read through them each time you use our site to ensure you understand how they apply to you.

These Terms, and any contract that exists between us, are in the English language only.

1. About Us

1.1 Intrinsic Dev is a trading name of Intrinsic Group Limited. Our registered office address is 9 Dicconson Terrace, Lytham, Lytham St Annes, FY8 5JY. Our trading address for all non-financial correspondence is The Maltings, Allendale, NE47 9EE.

1.2 Intrinsic Group Limited is registered in England and Wales under company number 09659256.

1.3 Contacting us:

1.3.1 To discuss a contract with us in accordance with your legal rights please simply contact us with your query. You can contact us by email at info@intrinsicdev.co.uk

1.3.2 To contact us for any other reason please submit a helpdesk ticket online as this is the quickest way to get in touch. Alternatively you can email info@intrinsicdev.co.uk but please note tech support cannot be contacted in any way other than the online helpdesk. You can also use the form on the Contact Us page.

1.3.3 If we need to contact you in regards to the contract that exists between us we will do so using the information you provided when placing the order, usually by phone or email.

1.4 Intrinsic Group Limited is a member of CEDIA. CEDIA is the international trade association and central touch point for over 3,700 member companies worldwide who design, manufacture, and install technology for the home.

2. Our Products

2.1 We make every effort to ensure we provide you with accurate information on our software. If you believe we have misrepresented the functionality of a driver or module please contact us as set out in section 1.3.

2.2 Images on our website are for illustrative purposes only. Our drivers are only available as instant downloads and not available in any hard format.

2.3 Our software is licensed to you, not sold to you. All of our software is available to download free of charge but will require licensing to function. All products that are offered for sale on this website are licenses for the automation controller specified at the time of purchase.

2.3.1 Obtaining a license key from Intrinsic Dev grants you a non-exclusive, non-transferable, limited and revocable license to install and use the specified software on a device owned or managed by you or your organization. The number of license installations may not exceed the total number of licenses you purchased for the software.

2.3.2 This license applies only to the applicable driver/module purchased and any updates that supplement the original driver/module.

2.3.3 Intrinsic Dev's software is licensed, not sold, to you and Intrinsic Dev retains ownership of all copies even after installation on your device.

2.3.4 This license is valid only for the specific system identified at the time the license was purchased and cannot be resold or transferred by you on to any other system. Under

exceptional circumstances Intrinsic Group Ltd may grant authorization to transfer an existing license to a new system but maintains the right to charge an administrative fee for this service as well as the right to refuse authorization at Intrinsic Group Limited's sole discretion.

2.3.5 Intrinsic Group Limited may transfer its rights and obligations, or sub-contract or sub-license to another legal entity, provided your consumer rights are not prejudiced.

2.4 All software written by Intrinsic Dev remains the property of Intrinsic Group Limited. This software is the intellectual property of Intrinsic Group Limited, and is protected by law, including English and International copyright laws.

2.5 You may not decrypt, reverse engineer, modify, translate, disassemble or decompile any of Intrinsic Dev's drivers/modules in whole or in part. Any modifications will immediately terminate all licenses held and full compensation for any and all infringements will be sought.

2.6 Intrinsic Dev reserve the right to withdraw a module/driver from sale at any time and for any reason, including, for example, if the equipment for which the driver/module is written is discontinued or substantially modified.

2.7 Intrinsic Dev carry out extensive BETA testing on all our software. Software that remains in BETA will not be offered for sale on this website. Our BETA testing scheme is covered by separate Terms, but in signing up to this scheme you consent to also abide by these Terms and Conditions. All BETA software remains the property of Intrinsic Dev and is covered by confidentiality agreements. This software must not be abused in any way as per section 2.5 and all discussions and findings during the testing phase are to remain confidential. Intrinsic Group Limited reserve the right to revoke BETA testing privileges at any time.

3. Use of our website

3.1 Your use of our site is governed by these Terms and our Privacy Policy. Please ensure you read these documents fully so you are aware of all Terms that apply to you.

3.2 You must be over 18 to purchase from this website.

3.3 You are responsible for ensuring that your account details and passwords remain confidential when using our website and agree to accept responsibility for all activities that occur under your account and password.

3.4 Please ensure you provide us with details that are complete and correct when setting up your account or placing an order. We cannot be held responsible for any delays or losses suffered due to incorrect information being supplied.

3.5 We will endeavor to provide you with uninterrupted, error free access to our website, however due to the nature of the internet this cannot always be guaranteed. On rare occasions your access may be restricted or interrupted to allow updates, upgrades or repairs; we will endeavor to carry out such tasks in the shortest time possible.

4. Our Contract with you

4.1 All Intrinsic Dev drivers/modules are designed to be used by qualified system integrators for the relevant control platform. When obtaining a license to use our software (whether free or purchased) you are confirming your status as above. We regret we only sell B2B and cannot license our software to end consumers. If you are the owner of a system and you believe you require our software please contact your system integrator to obtain a license and carry out the applicable integration work on your behalf.

4.2 Our drivers/modules are all available for instant download free of charge, you do not need an account with Intrinsic Dev to download a driver. The majority of our drivers require license keys to activate, you do need an account to obtain a license key. To obtain a license key (whether for a free or chargeable driver) simply add the relevant driver(s) to your basket and follow the checkout procedure online. Please check you have provided us with all the correct information before completing the transaction. Please note we do not accept purchases or provide license keys by phone or email.

4.3 When you place an order to purchase a license key from Intrinsic Dev you will be sent a confirmation email to confirm we have received your order. Please check through this email and notify us if anything is incorrect.

4.4 A contract between you and Intrinsic Dev exists only once you have received your license key, usually contained within the confirmation email.

4.5 Intrinsic Group Limited will deem this contract null and void in the event a license is used in any way that can be deemed harmful, including, but not limited to attempts to decrypt, reverse engineer, modify, translate, disassemble or decompile a driver/module, or the use of a license on a system not specified for at the time of purchase.

5. Payment

5.1 We accept all major credit or debit cards excluding American Express. Payment is taken immediately by our online payment provider Stripe. Stripe offers a secure payment gateway for online credit and debit card processing. All card numbers processed by Stripe are encrypted on disk with AES-256. Decryption keys are stored on separate machines. Stripe's infrastructure for storing, decrypting, and transmitting card numbers runs in separate hosting infrastructure, and doesn't share any credentials with Stripe's primary services.

5.2 Do not email your card details. We accept no responsibility if you provide us with your details in this way.

5.3 Card fraud is illegal and will always lead to prosecution. Every transaction taken is subject to fraud checks performed by Stripe; if we believe the risk of fraud is present on a transaction we reserve the right to cancel the order with immediate effect and without correspondence.

5.5 The Intrinsic Dev website is fully PCI Compliant. Stripe has been audited by a PCI-certified auditor and is certified to PCI Service Provider Level 1. This is the most stringent level of certification available in the payments industry. To accomplish this, Stripe make use of best-in-class security tools and practices to maintain a high level of security.

6. Delivery

6.1 There are no delivery charges for any of the products listed for sale on this website. All software is available to download instantly, free of charge. All license keys are automatically emailed upon receipt of applicable payment.

6.2 Our drivers/modules are not available in any hard format

6.3 License keys are emailed to the address given during the checkout process. Please check your spam folder if you have not received your license and allow up to 12 hours before contacting us regarding a missing license key.

6.4 We recommend reading the integration notes for each driver before attempting installation.

7. Refunds and Warranty

7.1 We do not offer refunds on our licensing. If you have made a mistake during your purchase or have another legitimate reason for requiring a refund please contact us as set out above in 1.3. Refunds may be offered within 7 working days in some circumstances, but please note no refunds will be considered if the driver/module has already been installed onto the relevant control platform.

7.2 Whilst every care is taken to ensure the thorough testing of our drivers, you should always carry out your own tests before first use. You agree not to hold Intrinsic Group Limited or any related party, liable for any issues or loss arising from the installation of our drivers/modules.

7.3 Our software is provided "as is" and "as available", without express or implied warranty or condition of any kind to the maximum extent permitted by law. We disclaim any warranty that our drivers/modules will meet your requirements or will be constantly available, uninterrupted, timely, secure, or error-free; the results obtained from the use of our drivers/modules will be effective, accurate, or reliable; the quality of the software will meet your expectations; or any errors or defects in the software will be corrected.

7.4 Intrinsic Group Limited specifically disclaim all liability for any actions resulting from your use of our software. You use our software at your own discretion and risk, and you are solely responsible for any damage to computer systems/control platforms, loss of data or loss of profits that results from the use of our software.

7.5 Our software is written and tested on the most recent version of 3rd Party platforms available at the time of release. Intrinsic Group Limited make no assurances of stability of any untested updates that may be released subsequently as all 3rd Party developments are beyond our control. Where an updated driver becomes available this can be downloaded from our website or from within your purchase history. Whilst we make every effort to keep all drivers/modules up to date we disclaim any obligation to do so.

8. Pricing

8.1 We make every effort to maintain the prices shown on our Website, however we reserve the right to discontinue drivers or to amend prices when necessary.

8.2 All prices exclude VAT (where applicable)

8.3 Our pricing originates in £ sterling, we make use of live currency exchange rates to automatically calculate pricing for alternative currencies. The rate used is beyond our control.

9. Support

9.1 We offer comprehensive support for our drivers/modules via an online ticket system. All support queries must be submitted through this ticket system. Any attempt to by-pass this system or to misrepresent priority levels will result in delays.

9.2 Intrinsic Dev offer paid for Remote Support packages for support that falls outside of standard driver queries, including, but not limited to, driver installation, wider system integration/programming and system design.

9.3 All drivers/modules written by Intrinsic Group Limited that require the purchase of a license key are fully supported for as long as they are listed on the Intrinsic Dev site.

9.4 We reserve the right to withdraw licensing and remove download links for a driver/module, thereby discontinuing on-going support at any time and for any reason. This includes, for example, if the equipment for which the driver/module is written is discontinued or substantially modified. The remainder of your rights and obligations pursuant to this license will not be affected should support be discontinued.

10. Other Terms

10.1 This contract is between you and us, no other person has the right to enforce these Terms.

10.2 Each of the paragraphs in these Terms operate separately. If any court or relevant authority deems any of them are unenforceable the remaining paragraphs remain in force and in effect.

10.3 The name Intrinsic Dev and Intrinsic Group, and associated logos are protected under UK copyright laws. The contents of this website, including (but not limited to) downloadable content, imagery and text may not be copied, reproduced, replicated, sold, downloaded or distributed by any means to third parties without the express consent of Intrinsic Group Limited.

10.4 The content of Intrinsic Dev and its Third Party associates are protected by copyright and database laws. You may not extract or use any content (in part or entirety) of the website without express written consent of the owners.

10.5 You must not use this website in any way that causes damage or impairment to the site or company of Intrinsic Group Limited or any other persons. Unlawful and fraudulent activity will be prosecuted.

10.6 The content contained on this website is for information purposes only. Intrinsic Dev (whether written on the website, through the helpdesk, via email or verbally) are not providing any recommendations or endorsements to any Third Party solutions, software or products. The material on this website does not constitute advice and you should not use the information on the website whilst making any decisions.

10.7 We accept no responsibility for the content of websites that are linked to Intrinsic Dev and do not necessarily endorse the material contained within these external websites. These links are provided for convenience only.

11. Contact Details

Intrinsic Dev, The Maltings, Allendale, NE47 9EE, UNITED KINGDOM

Email: info@intrinsicdev.co.uk

VAT Registration Number: 298 2167 63

Intrinsic Dev is a trading name of Intrinsic Group Limited.

Company Reg Number: 09659256