

# **TWinSoft Release Notes**

**TWS: 12.7.6.1756**

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# Revision History

Version	Date	Description
1.00	24/02/2023	Initial version
1.01	18/04/2023	Release 12.7.1
1.02	23/06/2023	Release 12.7.2
1.03	14/07/2023	Release 12.7.3
1.04	04/09/2023	Release 12.7.4
1.05	14/12/2023	Release 12.7.5
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## A. VERSIONS

<u>TWinSoft build number:</u>	<b>1756</b>
<u>WebformStudio 2.0</u>	<b>12.7.6.1756</b>
<u>TBox MS32 OS version:</u>	<b>1.50.604</b>
<u>TBox MS32-S2 OS version:</u>	<b>1.50.604</b>
<u>TBox LT2 / TG2 OS version:</u>	<b>1.50.604</b>
<u>TBox Nano OS version:</u>	<b>1.04.100</b>
<u>MS32 LINUX version:</u>	<b>2.6.27-6.1</b>
<u>MS32-S2 / -LT2 LINUX version:</u>	<b>4.14.298-1.1</b>
<u>LINUX modules version:</u>	
<i><b>bootstrap</b></i>	
MS-CPU32-S2 and LT2/TG2 with OS >= 1.42 ver. <b>3.7.1-5g</b>	
LT2/TG2 with OS >= 1.47.554 ver. <b>3.7.1-6-lt2</b>	
<i><u>Libraries associated to security:</u></i>	
<i><b>libssl</b></i>	
MS-CPU32(-S2) and LT2/TG2 with OS < 1.29 ver. <b>0.98.g</b>	
MS-CPU32(-S2) and LT2/TG2 with OS >= 1.30 ver. <b>1.0.1h</b>	
MS-CPU32(-S2) and LT2/TG2 with OS >= 1.38 ver. <b>1.0.1r</b>	
MS-CPU32(-S2) and LT2/TG2 with OS >= 1.44 ver. <b>1.1.1b</b>	
MS-CPU32(-S2) and LT2/TG2 with OS >= 1.46 ver. <b>1.1.1g</b>	
<i><b>openvpn</b></i>	
MS-CPU32(-S2) and LT2/TG2 with OS >= 1.44 ver. <b>2.4.7</b>	
MS-CPU32(-S2) and LT2/TG2 with OS >= 1.50 ver. <b>2.4.12</b>	
<i><b>dropbear-server</b></i>	
MS-CPU32 ver. 2016.74	
MS-CPU32-S2 and LT2/TG2 with OS >= 1.42.459 ver. 2020.80	
MS-CPU32-S2 and LT2/TG2 with OS >= 1.50.592 ver. 2022.80	
MS-CPU32-S2 and LT2/TG2 with OS >= 1.50.598 ver. 2022.83-80	
<i><b>proFTPD</b></i>	
MS-CPU32(-S2) and LT2/TG2 with OS >= 1.50. ver. <del>1.3.7</del> -> <b>1.3.3-4</b>	
<i><b>busybox</b></i>	
MS-CPU32 ver. 1.11.24	
MS-CPU32-S2 and LT2/TG2 with OS >= 1.48.575 ver. 1.34.1	
<u>TBox MS16 OS version:</u>	<b>3.29.735</b>
<u>TBox LITE OS version:</u>	<b>3.34.794</b>
<u>TBox WM, LP 4xx OS version:</u>	<b>3.34.794</b>
<u>TBox LP100, LP200 OS version:</u>	<b>2.00.230</b>
<u>TBox LP 300 OS version:</u>	<b>3.34.792</b>
<u>Flocom OS version:</u>	<b>3.34.792</b>

All new features and corrections require the highest version of OS to run in your CPU.  
When receiving a TBox CPU, check its current version using TWinSoft doing a:  
"Communication" → "RTU Identification"

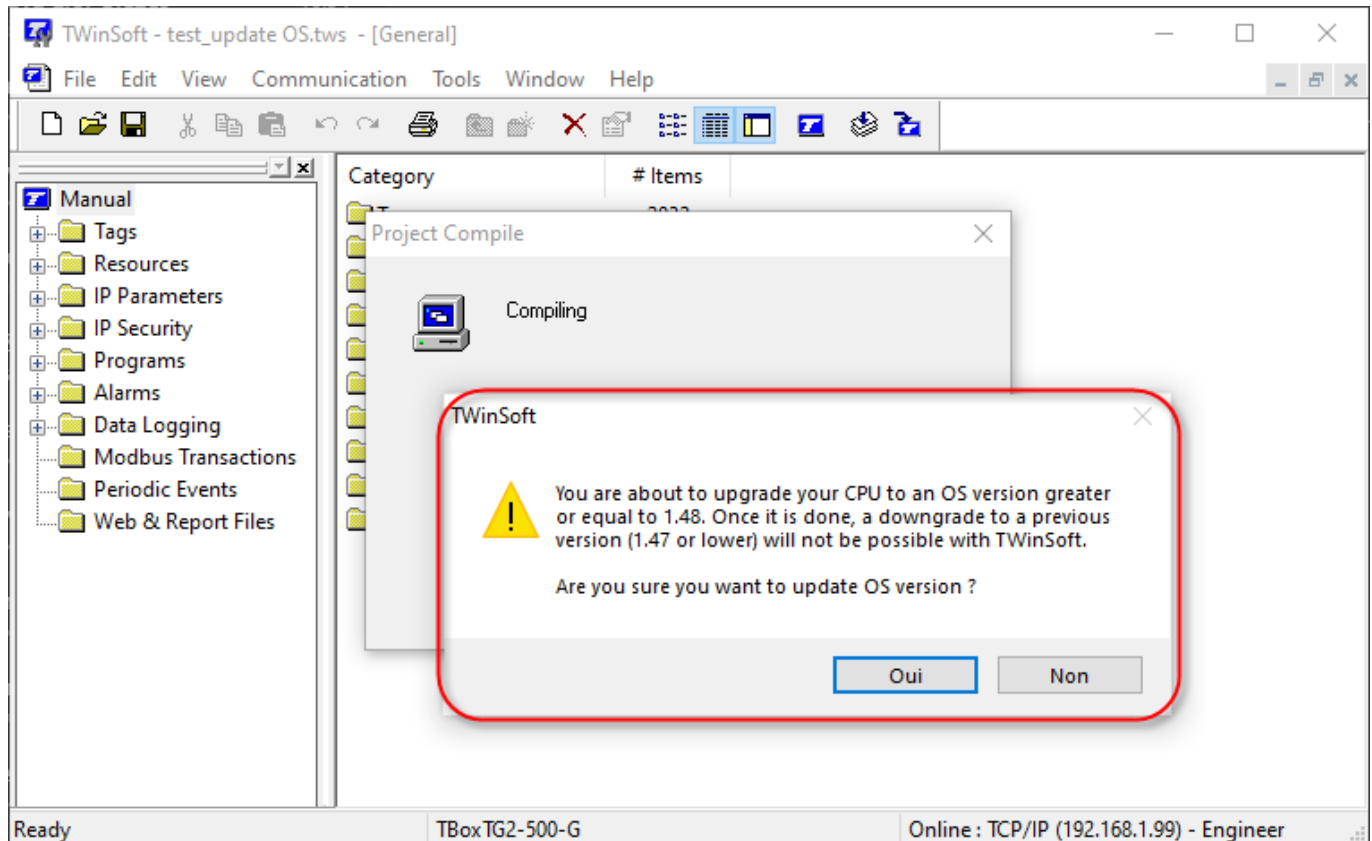
**READ IMPORTANT INFORMATION NEXT PAGE REGARDING DOWNGRADE.**

## IMPORTANT

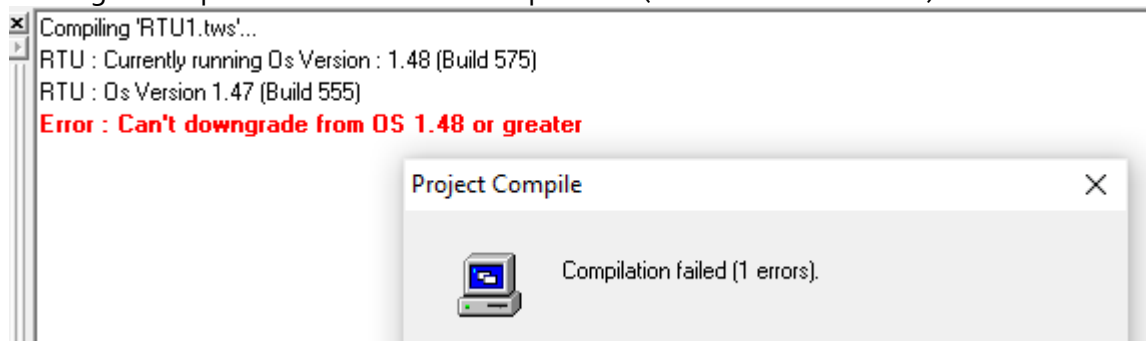
As far as **MS-CPU32(-S2)**, **-LT2** and **-TG2** are concerned, updating OS to 1.50 or higher carries out an important update of SSL, OpenVPN and LINUX too, required **to improve cyber security**.

From that moment, a downgrade to OS 1.47 or smaller is not possible using TWinSoft.

It requires the tool "*Monitor32*" to downgrade the OS.



Trying to downgrade is prevented when this not possible (as of TWinSoft 12.00)



A downgrade using **Plug&Go** (on SD card) is also protected and will not be executed. Seen in tracelog:

Warning	PlugAndGo	No valid OS is found in repository
Warning	PlugAndGo	Downgrade to version 1.47 or lower is not allowed because of kernel / crypto ch...

## B. IMPORTANT – TWinSoft Installation.

TWinSoft Suite requires some windows components to run properly. When required, these components are installed during setup if connected to Internet.

With old versions of Windows, Windows Installer 4.5 is a prerequisite to TWinSoft installation. If connected to Internet it will be downloaded, then installed. After that a reboot is required and TWinSoft setup will keep on running upon restart.

The following versions of Windows are concerned:

- Windows Vista, Vista SP1
- Windows Server 2008

If not connected to Internet, the package can be downloaded at the following url:

**Runtime : following three packages are required with all versions of Windows:**

VC++ 2008 :[http://download.microsoft.com/download/5/D/8/5D8C65CB-C849-4025-8E95-C3966CAFD8AE/vcredist\\_x86.exe](http://download.microsoft.com/download/5/D/8/5D8C65CB-C849-4025-8E95-C3966CAFD8AE/vcredist_x86.exe)

VC++ 2010 :[http://download.microsoft.com/download/1/6/5/165255E7-1014-4D0A-B094-B6A430A6BFFC/vcredist\\_x86.exe](http://download.microsoft.com/download/1/6/5/165255E7-1014-4D0A-B094-B6A430A6BFFC/vcredist_x86.exe)

.Net 3.5 :<http://download.microsoft.com/download/c/d/c/cdc0f321-4f72-4a08-9bac-082f3692ecd9/DotNetFx35Client.exe>


.Net 3.5 for Windows 8 or Windows 8.1: Off line installation is not possible:

### Important

There is no download for the .NET Framework 3.5 for Windows 8 or Windows 8.1. You must enable the .NET Framework 3.5 in Control Panel by following the instructions provided in this article.

## C. System Requirement

TWinSoft runs under Windows W7, W8, W10, W11 and W2012, W2016, W2019, W2022 (see above for pre-requisites).

	Windows XP, VISTA and 2003 Server are not supported anymore.
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## D. Update OS / Kernel with -MS32 -LT2

The 32 bits RTU (MS-CPU32(-S2), -LT2/TG2) runs LINUX, several libraries and drivers. New Operating System may also require and update of LINUX component(s). The version of the different modules is checked automatically when updating the OS in TBox.

### **As of TWinSoft 12.6.0 and OS 1.48.575**

- This version includes for **TBox MS32-S2** and **TBox-LT2** new LINUX modules. When updating OS, it updates LINUX and its components.

**It is not allowed from then to downgrade < 1.48.**

### **As of TWinSoft 12.2.0 and OS 1.44.480**

- This version includes for **TBox MS32-S2** and **TBox-LT2** new LINUX modules. When updating OS, it updates LINUX and its components.

**It is not allowed from then to downgrade < 1.44.**

### **As of TWinSoft 12.00 and OS 1.38.423**

- This version includes for **TBox MS32-S2** and **TBox-LT2** a new LINUX version (4.9.6). When updating OS, it updates LINUX and its components.

**It is not allowed from then to downgrade < 1.38.**

### **As of TWinSoft 11.01-SP1 and OS 1.29.314**

- With these versions, TWinSoft updates also cURL and OpenSSL libraries.

**It is not allowed from then to downgrade < 1.23.**

### **As of TWinSoft 10.07 and OS 1.17.xxx**

A new procedure of package, OS and application update assures more reliability.

- It works when OS 1.17 runs already in the TBox, then not during the first upload.
- In case a downgrade to OS < 1.17 is required, it can only be done using TWinSoft 10.07 or higher; afterwards a lower version of TWinSoft can be used with lower version of OS.
- **To update OS from 1.17 or lower to 1.23 or higher, do it in 2 steps:**  
upload 1.xx -> 1.23  
upload 1.23 -> higher



## E. Known Issues

### ***TMA files support maximum 247 Sampling Tables***

Above this quantity, the tables will not be included into the TMA file.

No problem to retrieve more than 247 tables with TView using "Download Scheduling".

### ***Camera***

A camera with Ethernet port and TCP/IP protocol can be connected to TBox.

Working with **TBox MS16** and **TBox LITE**, there are some camera time out issues we cannot bypass. It is due to the mechanism of data transfer of some camera (frames sent by half packet, without known reason). This limit today to use to camera with slow image size, like **D-LINK DCS900**, or **AXIS 207**.

Working with **TBox MS32(-S2)**, **TBox LT2** or **TBox TG2** as there is much more resource and it runs LINUX, we don't encounter those problems.

## F. Security Advisories

All information on how to secure TBox can be found in the document "**Cyber Security - Best practice**" accessible on our helpdesk: <https://servicedesk.ovarro.com/servicedesk/>

If you are not registered to helpdesk yet, send a request to be at [support.tbox@ovarro.com](mailto:support.tbox@ovarro.com)

### F.1. TWinSoft 12.5.0.1562

This release of TWinSoft + OS includes fixes related to vulnerabilities that might be published through CVEs.

It is also available in the cyber security zone on our web site:

<https://www.ovarro.com/en/europe/cyber-security/>

We do advise you to update your TBox or make sure they are not accessible if you are concerned by below cases:

- Publication TBOX-SA-2021-0001  
Weak encryption mechanism of project file.
- Publication TBOX-SA-2021-0009  
Code execution on host machine through TPG.



All files composing the .tpg file (Pack&Go) will now all be extracted in the same directory as where TWinSoft document is extracted.

It means if you use Pack&Go to do backup of your project and you wish to maintain a tree structure with your files, it will not be possible anymore.

- Publication TBOX-SA-2021-0010  
Fix for Sequoia vulnerability.

All information on how to secure TBox can be found in the document "**Cyber Security - Best practice**" accessible on our helpdesk: <https://servicedesk.ovarro.com/servicedesk/>

If you are not registered to helpdesk yet, send a request to be at [support.tbox@ovarro.com](mailto:support.tbox@ovarro.com)

### F.2. TWinSoft 12.5.1.1563

- TLS/SSL version vulnerability (ref 7109)  
It concerns all services providing an encrypted communication using the TLSv1.0 and/or TLSv1.1 protocols. There is a vulnerability using those protocols.  
As of OS 1.47.554, TLS 1.0 and 1.1 have been disabled, only TLS 1.2 and 1.3 are now supported.

## F.3. TWinSoft 12.6.0.1695

- Busybox updated (ref 7187)  
Updated to ver. 1.34.1.

The vulnerabilities are :

man - CVE-2021-42373  
lzma/unlzma - CVE-2021-42374  
ash - CVE-2021-42375  
hush - CVE-2021-42376, CVE-2021-42377  
awk - CVE-2021-42378, CVE-2021-42379, CVE-2021-42380, CVE-2021-42381, CVE-2021-42382, CVE-2021-42383, CVE-2021-42384, CVE-2021-42385, CVE-2021-42386

All fixes in 1.34 of busybox.

- TCP timestamps, uptime of host can sometimes be computed (ref 7010)  
This vulnerability is not critical for TBox as its uptime is not a critical info.  
It is fixed with LINUX 4.14.

## F.4. TWinSoft 12.7.2.1752

This release of TWinSoft + OS includes fixes related to vulnerabilities that might be published through CVEs.

It is also available in the cyber security zone on our web site:

<https://www.ovarro.com/en/europe/cyber-security/>

We do advise you to update your TBox or make sure they are not accessible if you are concerned by below cases:

- Publication TBOX-SA-2023-0001  
Vulnerability: the use of MD5 encryption to hash password. This is an insecure encryption algorithm.  
Workaround: block SSH through firewall or disable SSH access by emptying its password.  
Solution: as of OS 1.50.598, MD5 is not used anymore and system user account is disabled.
- Publication TBOX-SA-2023-0002  
Vulnerability: TBox is missing authorization for running some API commands which could reveal sensitive information.  
Workaround: no workaround.  
Solution: as of OS 1.50.598, sensitive information cannot be revealed without authentication.
- Publication TBOX-SA-2023-0003  
Vulnerability: linked to the use of OpenVPN. An attacker could setup a local OpenVPN and push a malicious script into TBox.  
Workaround: no workaround.  
Solution: as of OS 1.50.598, it prevents to setup user defined configuration scripts.

- Publication TBOX-SA-2023-0004  
Vulnerability: an insufficient entropy and improper authorization is set on a token being used for authentication. An attacker may gain access to a user account and access the source code.  
Workaround: block SSH through firewall or disable SSH access by emptying its password. Setting a password on the TWinSoft document will prevent accessing the application as the document is then encrypted.  
Solution: as of OS 1.50.598, it fixes entropy and file permissions.
- Publication TBOX-SA-2023-0005  
Vulnerability: TWinSoft configuration tool store sensitive information as plaintext in memory. An attacker with access to the application source could obtain plaintext password of SSH user account and engineers user account.  
Workaround and Solution: The workaround against this vulnerability is to set a document password so that only intended person can load the document.

## G. News & Fixes

### 1 New GSM module

A new 4G/LTE "world wide" GSM module is available.

It is available for MS-CPUS32(-S2) with the reference **MS-GSM-4W-2** and for LT2/TG2 with the references: **LT2-xxx-4W-2** and **TG2-xxx-4W2**.

#### 1.1 Technical specifications

- Worldwide 4G/LTE modem
  - Including AT&T(firstnet) and Verizon
- Eighteen Bands LTE (4G)
  - FDD-LTE: 15 bands
  - TD-LTE: 3 bands
- Eight Bands UMTS/HSPDA (3G)
- Quad Bands GSM/GPRS/EDGE (2G)
- GSM IP mode communication (through APN)
- Send/Receive SMS
- 1 port RS232/RS485 non isolated

#### 1.2 Stickers

There is no changing on front stickers compared to models with previous GSM module. Only the side sticker has changed

LT2/TG2, example with LT2-530


MS-GSM



This new module requires TWinSoft 12.7 + OS 1.50 or higher

## 1.3 Information about the GSM

In RTU Identification -> Advanced ... you can find all information about the GSM:

RTU Advanced Information				
Network configuration   Detected I/O cards   Installed packages <b>Modems</b>				
Name	Version	IMEI	ICCID	Model
 COM8	REVISIO...	350588...	893200...	Gemalto PLSx3 LTE

**Revision:**      firmware revision of the GSM  
**IMEI:**          unique identifier of the GSM  
**ICCID:**        unique identifier of the SIM card  
**Model:**        model of the GSM

## 2 SFTP using SSH key

TBox supports SFTP (file transfer using SSH) with login and password. It now supports also using a SSH key instead of the password.

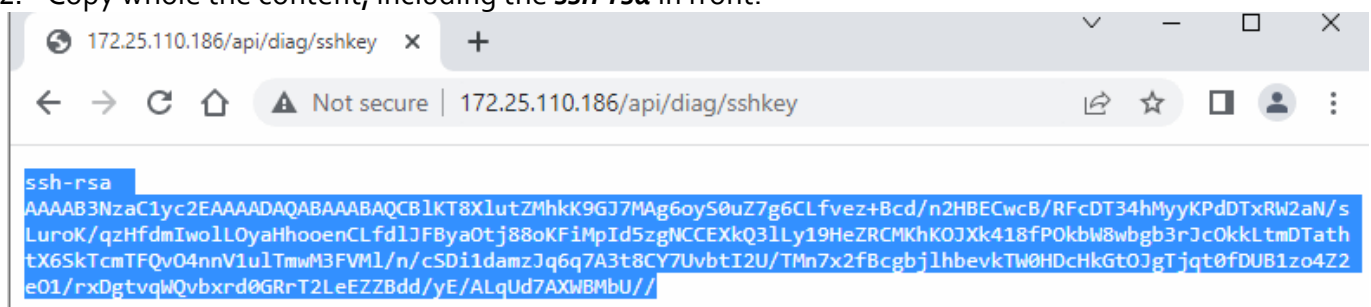
### 2.1 Procedure

1. The SSH key constitutes the public key and is unique for each TBox. It is available as of OS 1.50. It must be retrieved from TBox using the diagnostic page:

`http://<IP_Address>/api/diag`



2. Copy whole the content, including the **ssh-rsa** in front:



3. In SFTP server, create a user without password and with the ssh-key as public key.
4. In TWinSoft, declare a SFTP configuration **without password**:

The image shows a dialog box titled "SFTP Server" with a close button (X) in the top right corner. It has two tabs: "SFTP Parameters" (selected) and "Runtime Parameters". The "SFTP Parameters" tab contains the following fields:

- Server name: MySFTP
- Server address: 10.20.30.40
- Connection: COM3 - ETHERNET (dropdown menu)
- TCP Port: 22
- User name: LoginName
- Password: (empty text box)
- Confirm password: (empty text box)

At the bottom of the dialog box, there are three buttons: OK, Cancel, and Help.



## 3 HTTPS

### 3.1 Self-Signed Certificate

With the option “self-signed certificate”, at start-up TBox will generate a certificate with a default name based on the MAC address and with a validity of 1 year.

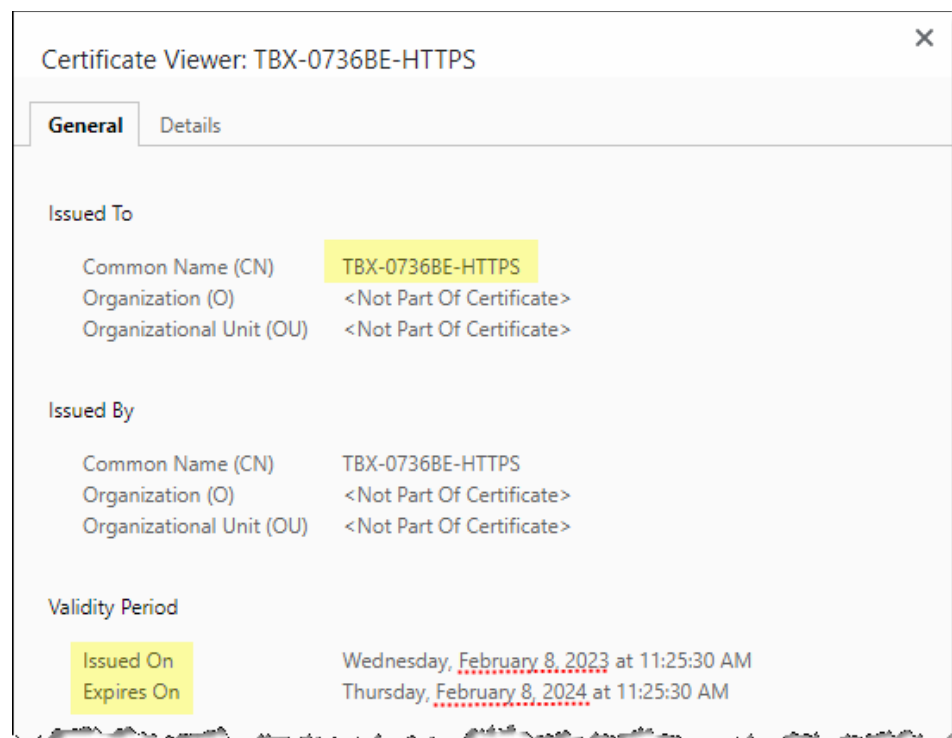


(It is still possible to use your own certificate by filling “Certificate” and “Key”)



The certificate can be regenerated using the system variable OverdConfig (see chapter below)

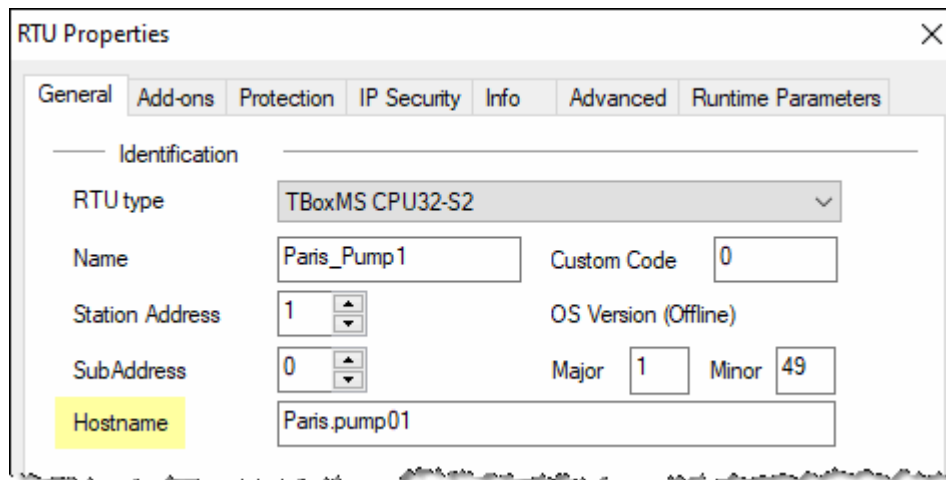
Example of certificate:



The CN can be customized using “Hostname” (see next).

## 3.2 With Hostname

Hostname is optional and configured from RTU properties.



The screenshot shows the 'RTU Properties' dialog box with the 'Identification' tab selected. The 'RTU type' is set to 'TBoxMS CPU32-S2'. The 'Name' is 'Paris\_Pump1', 'Station Address' is '1', 'SubAddress' is '0', and 'Custom Code' is '0'. The 'OS Version (Offline)' is 'Major 1 Minor 49'. The 'Hostname' field is highlighted in yellow and contains the value 'Paris.pump01'.

Identification	
RTU type	TBoxMS CPU32-S2
Name	Paris_Pump1
Station Address	1
SubAddress	0
Custom Code	0
OS Version (Offline)	Major 1 Minor 49
Hostname	Paris.pump01

If running a DNS server it allows accessing TBox using a name instead of an IP address. Hostname is part of the HTTPS self-signed certificate. It represents the Common Name of the certificate.

### 3.2.1 The Certificate

The hostname is used as Common Name of the certificate



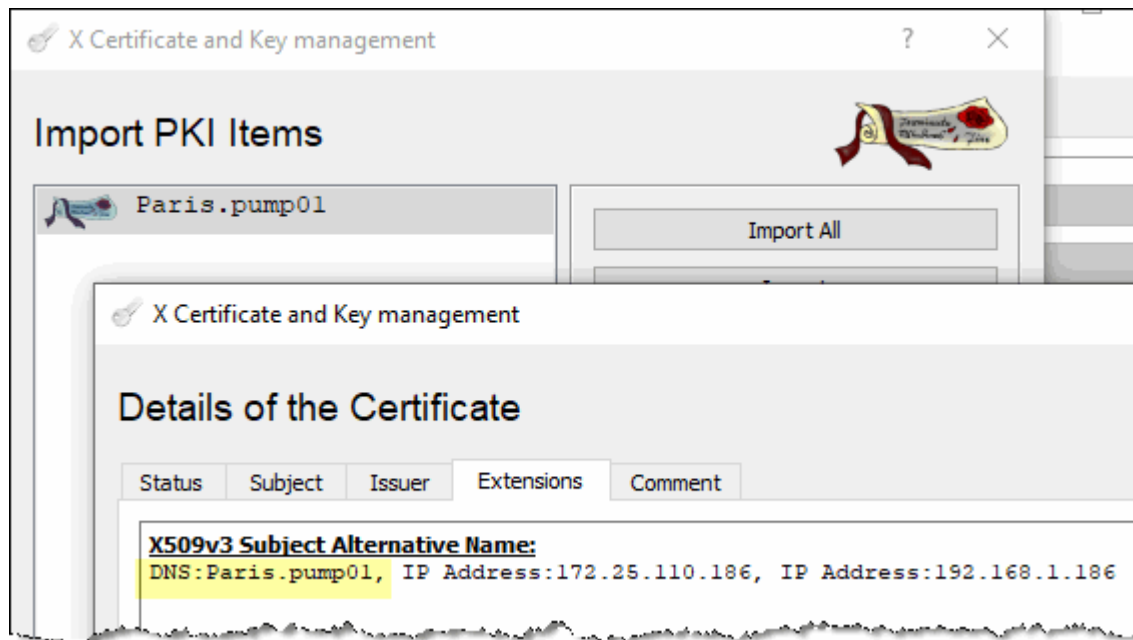
The screenshot shows the 'Certificate Viewer: Paris.pump01' dialog box with the 'General' tab selected. The 'Issued To' section shows the 'Common Name (CN)' as 'Paris.pump01', which is highlighted in yellow. The 'Issued By' section shows the 'Common Name (CN)' as 'Paris.pump01'.

Issued To	
Common Name (CN)	Paris.pump01
Organization (O)	<Not Part Of Certificate>
Organizational Unit (OU)	<Not Part Of Certificate>

Issued By	
Common Name (CN)	Paris.pump01
Organization (O)	<Not Part Of Certificate>
Organizational Unit (OU)	<Not Part Of Certificate>

The hostname can be used to access TBox as it is set as alternative name in the certificate:



*Display of the certificate in XCA*

### 3.2.2 Hosts File in Windows

A DNS configuration is possible with Windows without running a DNS server, using the file **"hosts"** (without extension).

With Windows 10, the file is located at `C:\Windows\System32\driver\etc\hosts`

Example:

```
# For example:
#
#      102.54.94.97      rhino.acme.com      # source server
#      38.25.63.10      x.acme.com          # x client host

# localhost name resolution is handled within DNS itself.
#   127.0.0.1          localhost
#   ::1                localhost

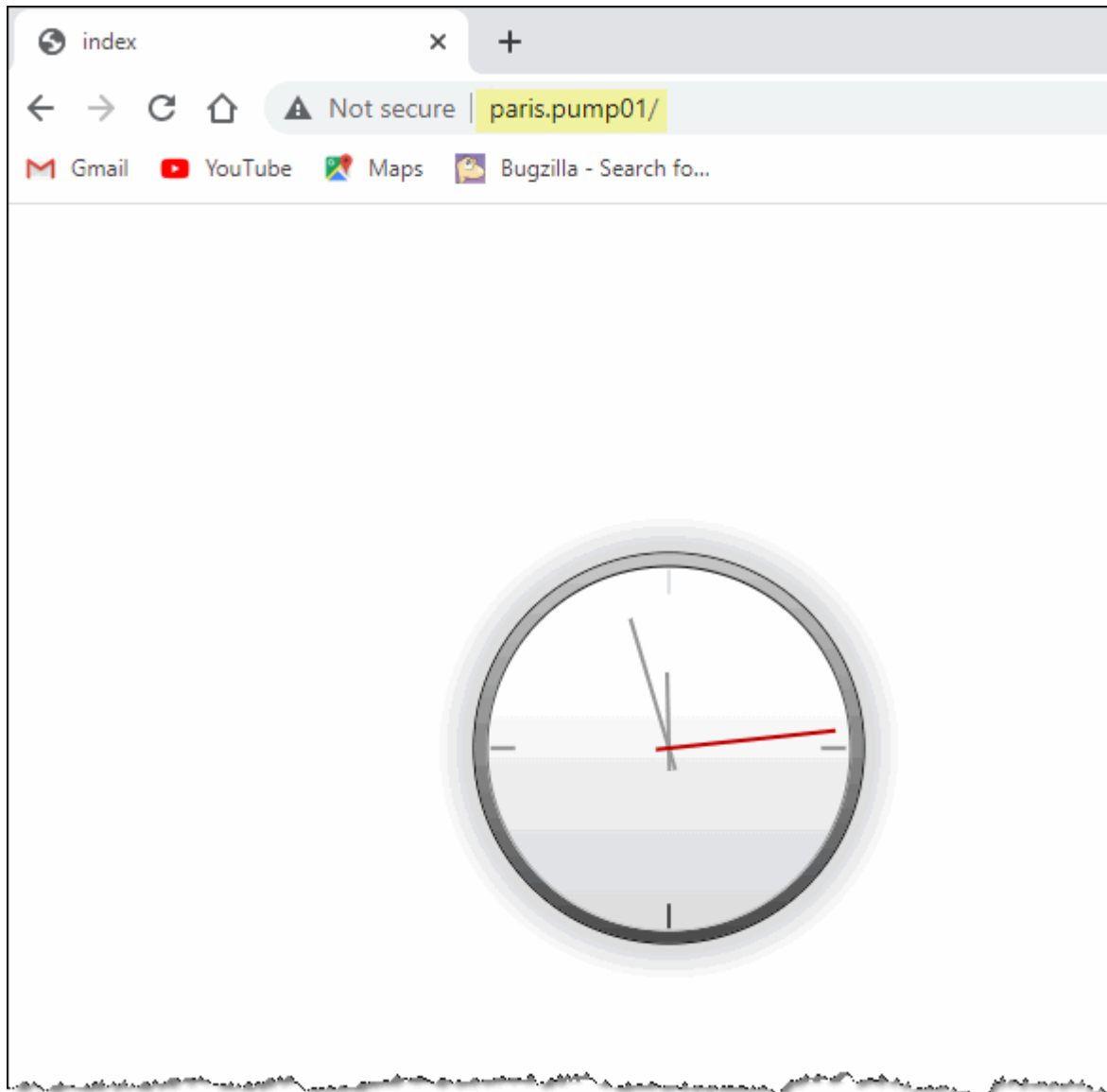
172.25.110.186 Paris.pump01
```

The you need to flush the DNS cache. Start a DOS prompt "As administrator" and type:

```
Ipconfigg /flushdns
```

### 3.2.3 Use Hostname in a Browser

One can type the name instead of an IP address:



I

### 3.2.4 In TConnect, Hostname in Outstation configuration

With registration *active*, instead of declaring an IP address, you can use its name:

### Edit outstation Paris\_Pump1

GeneralLocationEnd PointsApplicationsSync

Address

Paris.pump01

VPN Server

(None)

Protocols

HTTPS

443

Modbus over web socket

443

Allow SSH

22

### 3.2.5 In TConnect, First Notification: "Certificate validation"

### Certificate validation

Status	NotValidated
Subject	CN=Paris.pump01
Issuer	CN=Paris.pump01
Expiry	08/02/2024 10:53:17
Thumbprint	5B48B64A8510D0848681BFA541B39EA171673670

Validate manually the certificate to allow a communication to the outstation.

NoYes

### 3.2.6 In TConnect, Second Notification: "Registration":

Informations of the outstation Paris\_Pump1

General

Hardware

Application

Firmware

Certificates

Type

TBoxMS32S2

Key


0736BE

Topology

Ethernet (Active)


Registration Status

WaitAcknowledge



Certificate Status

ManuallyValidated



Updates

NotManaged

The outstation needs to be validated before registration is complete. Do you want to allow this outstation to register on TConnect? If not, the outstation will be deleted and blacklisted.

Yes

No

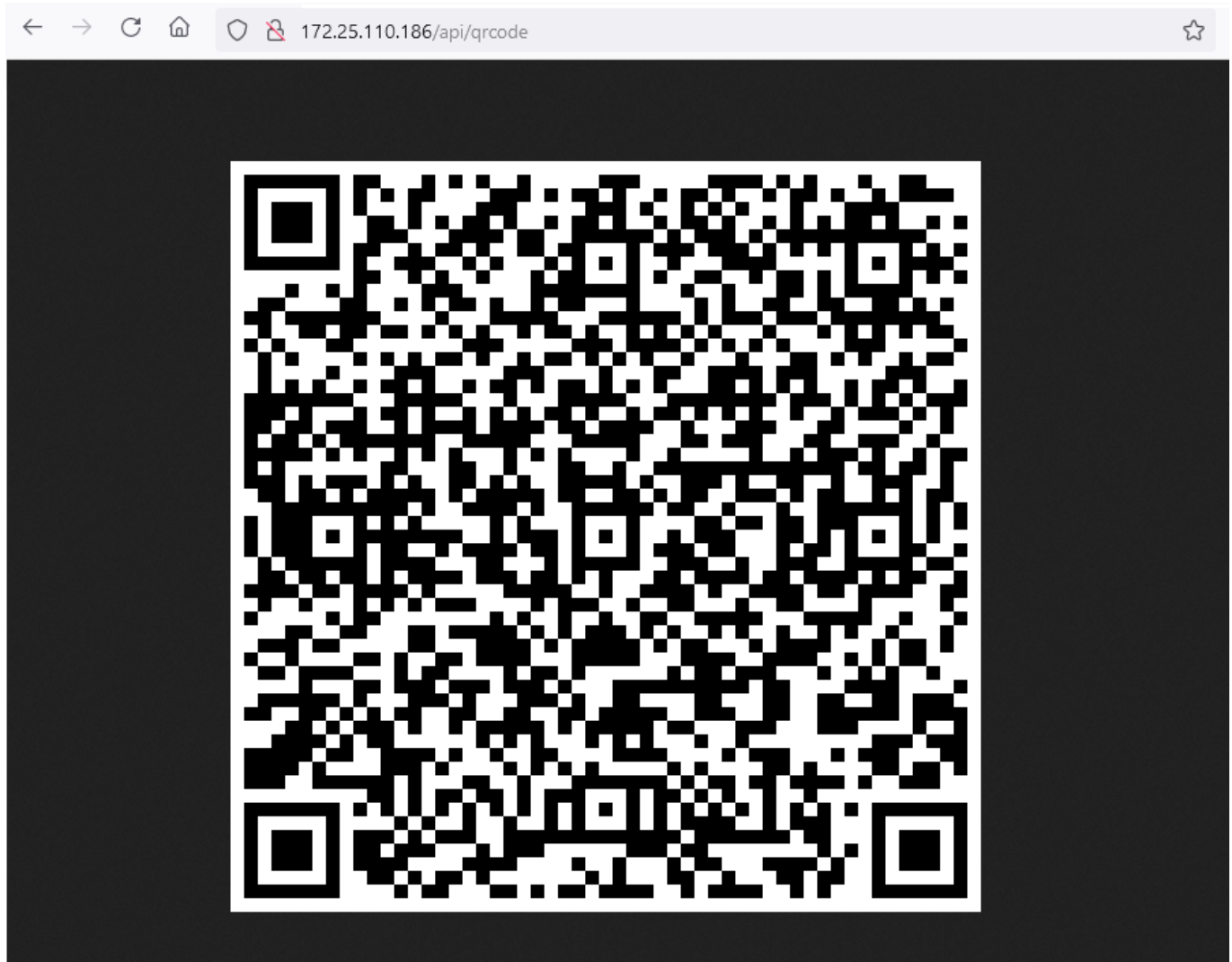
Informations of the outstation Paris_Pump1		
General	Hardware	Application
Firmware	Certificates	
Store	Common name	Expiry
HTTPS	CN=Paris.pump01	2/8/2024, 11:53:46 AM

## 4 QR code

When working with HTTPS, TBox can generate its unique QR code. The QR code includes the thumbprint of the HTTPS certificate. This allows TConnect to trust the TBox it is connected to. Trusting TBox is mandatory for TConnect to deploy certificates into TBox; using the QR code is one method of validating TBox certificate.

From a browser, type:

```
http://<IP_Address>/api/qrcode
```



MIND it takes around one minute to be available after program start-up.


QR code is used with TConnect, to authenticate the TBox. When TConnect connects to the TBox, it does not recognize the certificate, then it cannot trust the TBox.

The idea is when installing TBox on site, one connects through USB to the TBox, one scans the QR code to add it into database of TConnect. Next time TConnect connects to TBox it compares its certificate with the thumbprint of QR code in its database. Then TConnect will trust the certificate and allow TConnect to communicate with the TBox.

In case one replaces the TBox, TBox is not accessible anymore and it requires to resume the sequence.

Then this code must be added into TConnect. There are 2 possibilities:

- In the browser, right-click the code and save it as an image. In TConnect, in the outstation configuration, you can then add the image.
- Run TConnect on a smartphone and scan the QR code of TBox.

	The QR code has a validity of 1 week.
---	---------------------------------------

Two notifications occur in TConnect:

- First one to validate the self-signed certificate (HTTPS). Information available in "Certificates" tab.
- Second one to register the RTU. Information available in "General" tab.


## 5 System Variable OverdConfig


This variable is not new, but there are some new values linked to handling of certificates.

This variable returns a value according to the configuration overridden by external source (typically TConnect). The rule is to write the value corresponding to the bit to reset the bit.

Example, if a certificate has been overridden, value = 16. To reset the value you write 16, then it returns = 0. This should always been carried out to detect any changing.

- Bit0 (01 dec.) : System.xml
- Bit1 (02 dec.) : Users updated (from TConnect, WF2, ...)
- Bit2 (04 dec.) : I/Os (RM2)
- Bit3 (08 dec.) : Firewall
- Bit4 (16 dec.) : HTTPS certificate overridden by TConnect, or started with self-signed certificate
- Bit5 (32 dec.) : Trust list pushed in TBox
- Bit6 (64 dec.) : Rd=0; Wr=1 to regenerate new self-signed certificates
  - If value = 16, you can regenerate by writing 80 (64 + 16) It will reset bit 4, regenerate new certificates then change value = 16  
Then you write value = 16 to reset the bit
  - One can regenerate certificates writing into the Tag only when certificate in TBox is still "self-signed".

	Once certificates have been renewed by TConnect, one cannot regenerate certificate anymore with the system variable. This to increase cyber security
---	---

	Certificates once stored into TBox can only be changed or emptied by sending first an empty application
---	---



## 6 Fixes & Enhancements

### 6.1 TWinSoft 12.7.0.1750 + OS 1.50.595

#### WebForm 2.0 (ref 7437): AlarmGrid

Minimum height has been reduced to 100 pixels.

#### WebForm 2.0 (ref 7431): AlarmGrid

Manual acknowledgment does not work anymore since OS 1.46.535.  
Corrected.

#### WebForm 2.0 (ref 7422): Dynamic Label

Formatted Float do not display leading "0" correctly.  
Corrected.

#### WebForm 2.0 (ref 7405): Chart 1

Page is blank when scales are wrong: MIN > MAX or MAX < MIN. This can happen when updating the scales through script.  
Corrected.

#### TWinSoft (ref 7398): Plug&Go

Plug&Go for TConnect was named "TConnect.zip".  
It now uses the station name.

#### WebForm 2.0 (ref 7392): Iframe

Iframe is empty when running with Firefox.  
Corrected.

#### TWinSoft (ref 7384): Program equality

As of TWinSoft 12.6.4.1702, when editing the program; the indication of file changing in the title (\*) does not appear and the program equality stays "Equal".  
Corrected.

#### WebForm 2.0 (ref 7382): Message box

Line feed (\n) does not work after the second line.  
Corrected.

#### TWinSoft (ref 7375): Pack&Go

Program appears as "not saved" after import of TPG. It shows the "\*" next to the file title but program equality is set to "Equal".  
Corrected.

**TWinSoft (ref 7374): Compilation**

When an addon is missing, TWinSoft indicates an error at compilation: **Invalid Parameter**.  
It now displays a more explicit message.

Example with DNP3 addon missing:

**Error : Add-on file "Dnp3Slave.xba" was not found.**

**Error : Add-on 'Dnp3Slave', can't load information**

**TWinSoft (ref 7318): Compilation**

After changing a MS-GSM of slot number, any VPN using it will lose reference to the communication port.

Corrected.

**TWinSoft (ref 7277): Pack&Go**

TWinSoft fails to send Pack&Go which had been created with files into sub-directory(ies).

Corrected.

**OS32 (ref 7265): GSM**

Sometimes, during start-up, we have a lock into a function when the USB modem is being detected.

Then we see this trace log:

```
[2022-02-18 11:44:23 CET] System (warning): Comm thread seems to be locked in  
</opt/tbox/bin/tbox(konl_receive_event+0) [0x62fb8]>, will try to unlock
```

Corrected

**OS32 (ref 7223): HTTP APIs**

Possibility to retrieve the sources through HTTPS (required by TConnect).

The application source must be sent into RTU.

The URL is:

```
https://<IP_Address>/sources/TBoxApp.tpg
```

**TWinSoft (ref 7186): Modbus address**

With TBox-MS, when an input card is in slot 4, one cannot address input with ModBus address 8192.

Corrected.

**OS32 (ref 7150): Memory**

System Variable "FreeMem" does not consider the memory used by TCPDump.

Corrected.

**TWinSoft (ref 7149): Global code**

When setting the global code as protection method, TWinSoft does not check both entries are identical.

Corrected.

**OS32 (ref 7128): Modbus**

A write may be possible on a protected port, with multiple simultaneous ModBus communication.

Corrected.

**OS32 (ref 7075): SSH**

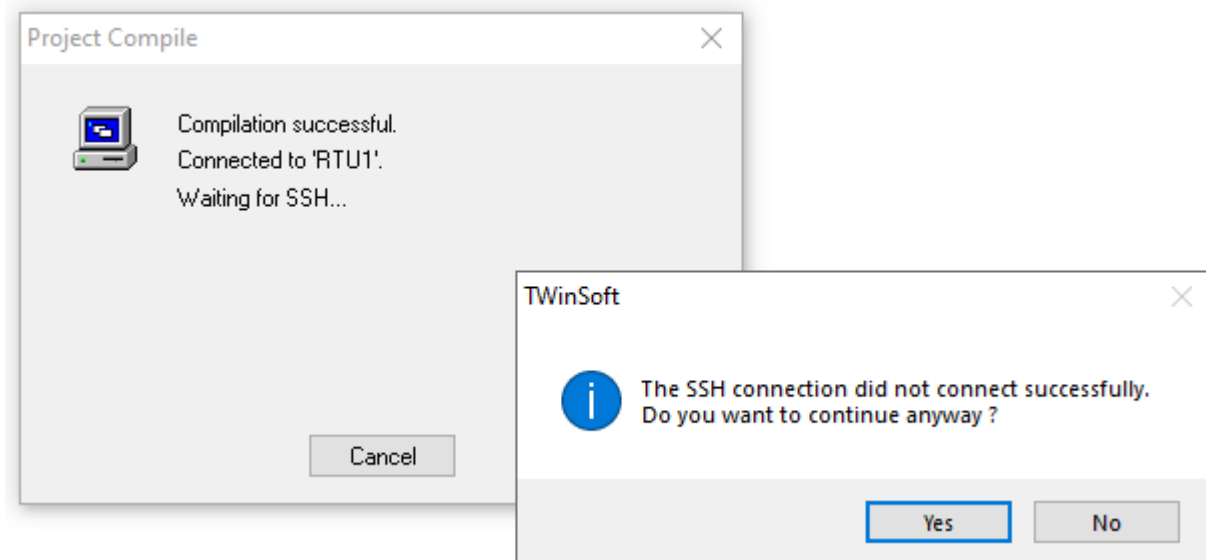
SSH not working at first time when CPU is out of production, with OS 1.45.511.

Corrected with latest OS.

## **TWinSoft** (ref 7074): SSH

SSH connection is now activated automatically by TWinSoft when sending the application. In case SSH fails, TWinSoft carries on in Modbus communication.

There is now a message indicating SSH has failed, that you have the possibility to interrupt sending.



## **TWinSoft** (ref 7046): PIN code

If PIN code is set as text it generates watchdog. This can happen by mistake and was not secured... Corrected.

## **TWinSoft** (ref 6908): Signature

Signatures of included resources (cat), like addon, are not included into .tpg; This leads to warning when sending an application using Pack&Go. Corrected.

## **OS32** (6508): GSM 4W

LED "network" does not work with MS-GSM-4W and LT2/TG2-xxx-4W. Corrected.

## 6.2 TWinSoft 12.7.1.1751 + OS 1.50.597

**TWinSoft** (ref 7490): MS-GSM 4W-2

There is a warning at compilation indicating there is a card mismatch even when it is not the case.  
Corrected.

**OS32** (7475): GSM 4W-2

GSM fails to register when SIM card requires authentication.  
Corrected.

**OS32** (7471): MS-GSM 4W-2

Issue to read IMEI linked to handling of AT command ECHO.  
Corrected.

**TWinSoft** (ref 7488): Export

Export of Tags in CSV fails to generate Modbus address. ModBus addresses = -0001.  
Corrected.

**TWinSoft** (ref 7485): proftpd

Revert the update of this module as it affects add-ons using it.  
Fallback to 1.3.3.

**TWinSoft** (ref 7473): Pack&Go

Check the presence of addon signature (.cat) when creating a Pack&Go file.  
When it exists, add it to the .tpg, when it does not exist, carry on without error.

**TWinSoft** (ref 7458): SSH

The SSH warning must not be displayed when it is not supported, like in serial communication.  
Corrected.

## 6.3 TWinSoft 12.7.2.1752 + OS 1.50.599

A series of cyber security vulnerabilities have been fixed. See chapter F.4.

### OS32 (7499): MS-GSM 4W-2

Watchdog of the CPU when the serial port of the GSM is used for an external modem.  
Corrected.

### TWinSoft (ref 7489): SSH

In some network environments, it is not possible to setup SSH connection with TBox.  
Corrected by returning to dropbear 2020-80 but with keeping the handling if SSH key (ver. 2022-83-80)

### OS32 (7483): Routing

Routing to CPU3 works to access Tags but does not work to send a new program to CPU3.  
Corrected.

### TWinSoft (ref 7469): SSH User name

The User name could include unsupported characters.  
Syntax now authorized:

- between 1 and 32 characters long
- it can contain letters, digits, underscore (\_), hyphen (-) and period (.) characters
- the first character must be a letter or underscore (\_)

### TWinSoft (ref 7468): OpenVPN

Forbid users to put script in Advanced VPN configuration. The following commands will not be allowed anymore:

<b>--up</b>	Executed after TCP/UDP socket bind and TUN/TAP open.
<b>--tls-verify</b>	Executed when we have a still untrusted remote peer.
<b>--ipchange</b>	Executed after connection authentication, or remote IP address change.
<b>--client-connect</b>	Executed in <b>--mode server</b> mode immediately after client authentication.
<b>--route-up</b>	Executed after connection authentication, either immediately after, or some number of seconds after as defined by the <b>--route-delay</b> option.
<b>--route-pre-down</b>	Executed right before the routes are removed.
<b>--client-disconnect</b>	Executed in <b>--mode server</b> mode on client instance shutdown.
<b>--down</b>	Executed after TCP/UDP and TUN/TAP close.
<b>--learn-address</b>	Executed in <b>--mode server</b> mode whenever an IPv4 address/route or MAC address is added to OpenVPN's internal routing table.
<b>--auth-user-pass-verify</b>	Executed in <b>--mode server</b> mode on new client connections, when the client is still untrusted.

### OS32 (6695): ModBus Transactions

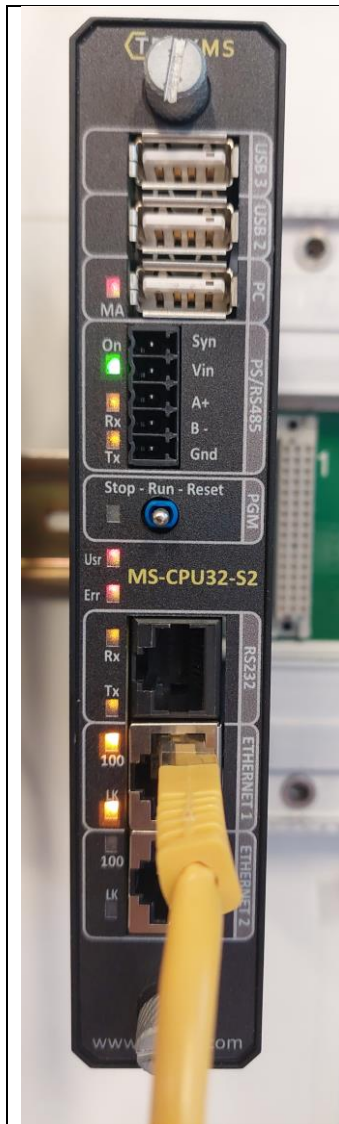
When the addition of timeouts and retries for one device exceeds 2 minutes, the communication port is locked and no further transactions executed.  
Corrected.

## 6.4 TWinSoft 12.7.3.1753 + OS 1.50.601

**OS32** (7523): MS-GSM 4W

With OS 1.50.599, GSM fails to connect when it uses authentication.  
Corrected.

## 6.5 TWinSoft 12.7.4.1754 + OS 1.50.602



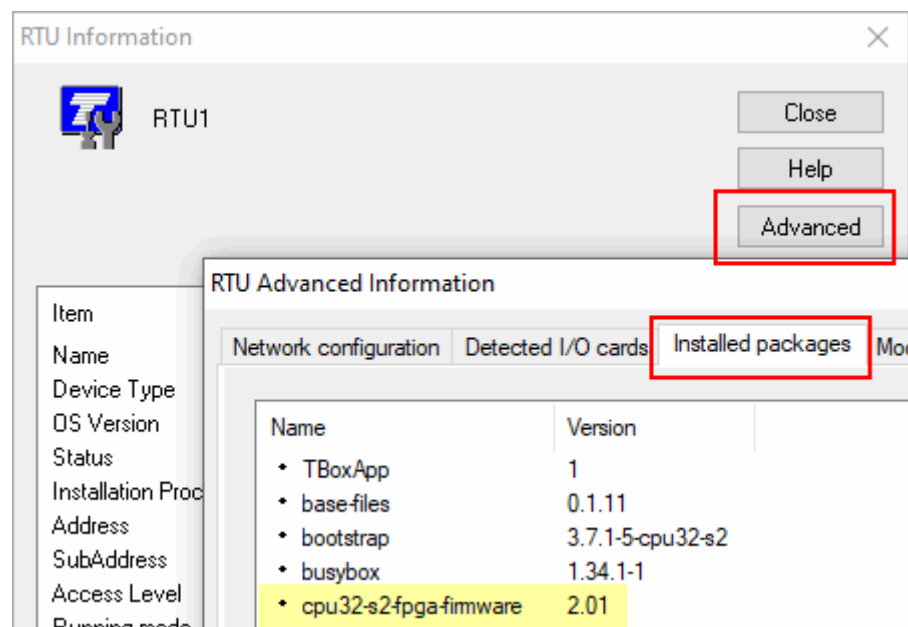
This release includes a new LINUX module to fix an issue with RS485 communication (see below).

The module concerned is linked to the FPGA which handles among others the LEDs of the CPU.

When updating OS, if the FPGA module must be updated, during its update, **all LEDs of the CPU will bright weakly.**

This is a normal condition, **DON'T RESET THE CPU !**

The new version of the FPGA (2.01) can be checked doing an advanced RTU identification:



**TWinSoft** (ref 7429): Plug &Go

Plug & Play menu always displays "OS Offline".  
Corrected.

**TWinSoft** (ref 7436): Automation

Failed to create DCV/ACV Tags with VPN. Linked to the fact that VPN has no "COMx".  
Corrected.

**WebForm 2.0** (ref 7454): Object WaterTower

WaterTower doesn't take number of digits into account.  
Corrected.

**WebForm 2.0** (ref 7472): Main Object

SetToolTip is out of the screen.  
Corrected.

**MS-CPU32-S2** (ref 7503, 7525): FPGA.

RS485 Communication issue on RS485 of the CPU. May impact remote devices.

Corrected

**OS32** (7526): Temperature

Value was not properly converted in °F and °K

Corrected

**TWinSoft** (ref 7527): Automation

Add a new property to get a Rack "id".

**TWinSoft** (ref 7533): OpenVPN

Option "group" was not allowed.

Corrected



## 6.6 TWinSoft 12.7.5.1755

### WebForm 2.0 (ref 7249): Password

Improve the handling of password in WebForm Studio.

The dialog box will appear every time on top.

Corrected

### TWinSoft (ref 7394): TConnect

When starting TWinSoft from TConnect client, make sure windows appear on top.

Corrected

### WebForm 2.0 (ref 7502): .twa

Draw Menu is gray out when too many twa are open.

Corrected

### WebForm 2.0 (ref 7511): Raspberry

Problem with RaspberryPie display linked to new JavaScript function.

Corrected

### TWinSoft (ref 7551): Pack & Go

Pack&Go with images in subdirectories cannot be sent to TBox.

Corrected.

PS: Theses ref : 6884 , 7277, 7294 and 7375 have been retested as well.

### WebForm 2.0 (ref 7554): Table of Tags

Add button to download a CSV file.

The option is adding in the property of the object. By default it is set to "yes"

Corrected

### WebForm 2.0 (ref 7555): Objects (tables)

Add a new CSV export button available on Chart , Grid , ChronoGrid,EvenGrid , Alarms and Table of Tags.

This an option and is "yes" by default.

## 6.7 TWinSoft 12.7.6.1756 + OS 1.50.604

### MS-CPU32-S2 (ref TBOX-55 ): FPGA.

A digital input on MS-RACK may toggle for no reason on rare occasion.

Fixed in cpu32-s2-fpga-firmware version 2.02

### OS32(ref TBOX-32):Certificate

Corruption of trust list when a CRL is larger that 10000 characters.

Corrected.

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