

Read Me IoT Client v3.0**Build Nr. of IoT Client: 3.0.10.251****Table of Contents**

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1. Introduction

The IoT Client is a versatile tool designed for cross-platform use. It securely transmits system configurations, software, and hardware information, as well as historical and real-time data to the cloud for Introspect and future Tecan cloud applications. Additionally, it includes self-updating capabilities and the ability to download and execute remote updates.

This document describes the main functionality of the **IoT Client 3.0.10.251**.

2. Compatibility

- Windows 10 LTSC 2021 (64 Bit) and Windows 10 LTSC 2019
- vControl v1.0 and higher
- Introspect v3.0

Note: The IoT Client v3.0 was tested and compatible with vControl and both Windows 10 LTSC 2021 (64 bit) and Windows 10 LTSC 2019 (64 bit).

3. IoT Client



3.1. Supported Features

3.1.1. Sending Data Events of vControl

The following live events are sent:

- Instrument State
- Name of the current run
- Expected end time of run
- Messages
- Logged in user
- Usability data
- Environmental data

3.1.2. Tray Icon Context Menu

- The tray icon context menu of the IoT Client can be found in the windows tray bar (next to the current time in the task bar). It indicates the IoT Client status with a green icon if it is running without errors () or a red dot icon if the IoT Client is not running or is in an error state ()
- Right clicking the tray icon offers the following functionality:
 - Start & Stop IoT Client service.
 - Open the IoT Client configuration tool to view the system status, configuration, and instrument registration information.

3.1.3. IoT Client Configuration Tool

- The user shall be able to view the various system status:
 - Internet connection status
 - Instrument registration status
 - Cloud connection status
 - IoT Client status
- The user shall be able to edit the following configuration settings:
 - Alias
 - Proxy server incl. Proxy Address and Port
 - Proxy authentication incl. Username and Password
 - Select a custom SSL certificate & Webcam Url
- The user can register the instrument.

3.2. Changes

As IoT Client 3.0 represents an entirely new development, rendering the changes section is inapplicable.

IoT Client 3.0 will not replace previous versions of IoT client for legacy applications.
Legacy application support will be available with 3.1 and higher.

3.3. Restrictions

3.3.1. General

This software version is exclusively designed for use with **vControl**.

3.4. Installation

The installation instructions described below are valid for **IoT Client v3.0** and higher.

Important!

To install the IoT Client, a local Windows administrator account is required to log in locally during the installation process.

3.4.1. Installation Instruction

The installation process consists of the following steps:

- IoT Client Installation
- Instrument Registration


3.4.2. IoT Client Installation

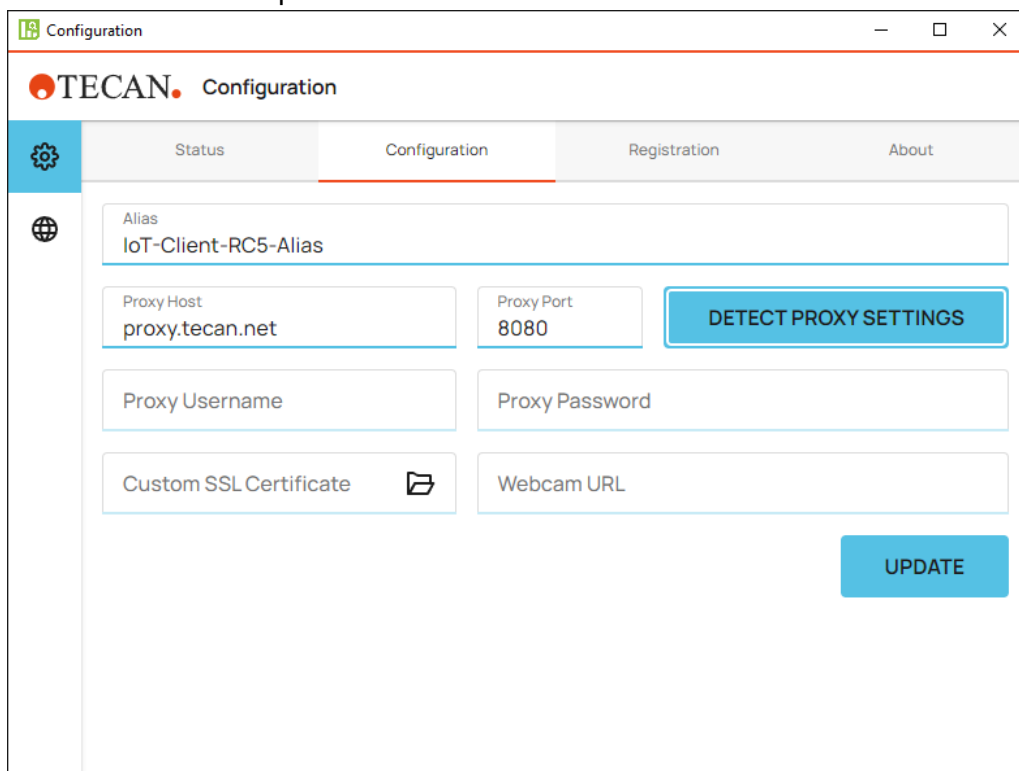
- Launch the installation file "**IoT Client 3.0.10.251**" with local windows administrator privileges.
- Accept the license terms by agreeing to them and then click on install.
- Allow the installation process to complete.
- Click **Close** to finish and exit the installation process.

3.4.3. Instrument Registration

Note: Network drives are not supported.

Note: The IoT Client supports connections to the internet via proxy server. Ask your system administrator to assist you with the proxy set-up and authentication.

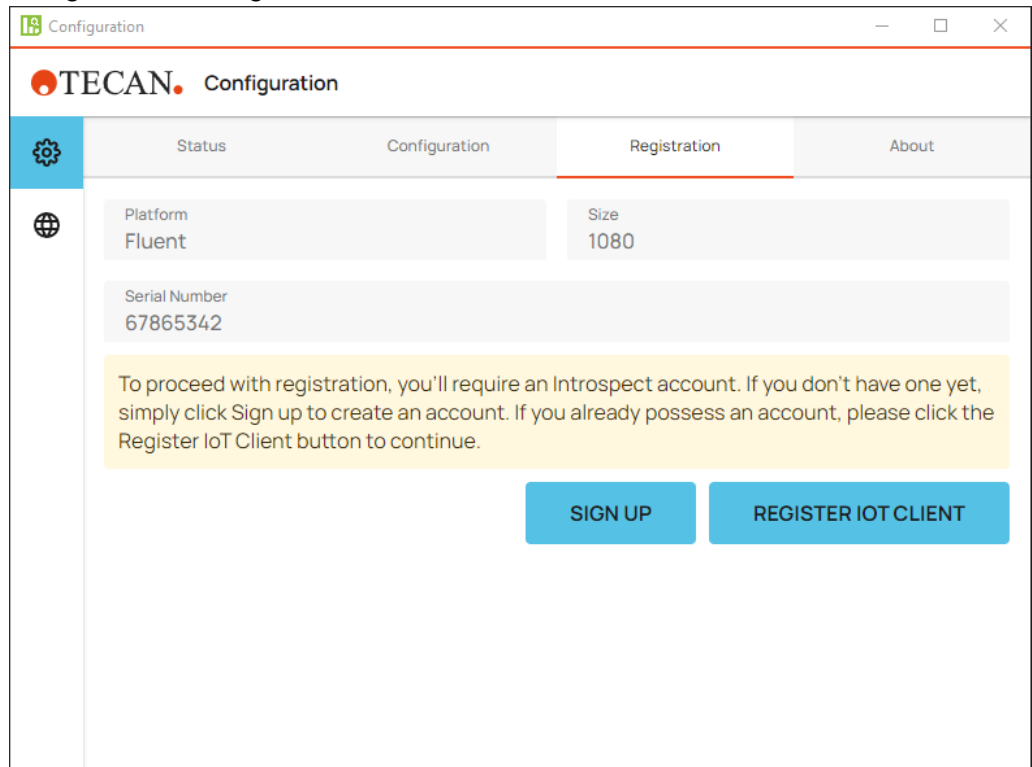
1. To begin IoT Client registration, right-click on the red IoT Client icon () located in the taskbar.
2. Select “**Settings**”, to open the **Configuration Tool**.
3. Navigate to the Configuration tab and enter the Alias and if required, the proxy and certificate details can be added.
4. If the instrument PC connects to the internet through proxy server, click on **DETECT PROXY SETTINGS**. If the proxy server requires authentication, enter username and password.



The screenshot shows the 'Configuration' window of the TECAN IoT Client. The window has a title bar with the TECAN logo and the text 'Configuration'. Below the title bar is a navigation bar with four tabs: 'Status', 'Configuration' (selected), 'Registration', and 'About'. The 'Configuration' tab is active, showing a form with the following fields and buttons:

- Alias:** A text field containing 'IoT-Client-RC5-Alias'.
- Proxy Host:** A text field containing 'proxy.tecan.net'.
- Proxy Port:** A text field containing '8080'.
- DETECT PROXY SETTINGS:** A blue button.
- Proxy Username:** A text field.
- Proxy Password:** A text field.
- Custom SSL Certificate:** A text field with a folder icon next to it.
- Webcam URL:** A text field.
- UPDATE:** A blue button at the bottom right.

- Once you have entered the necessary details in the Configuration tab, navigate to the Registration tab and click on **REGISTER IOT CLIENT**.



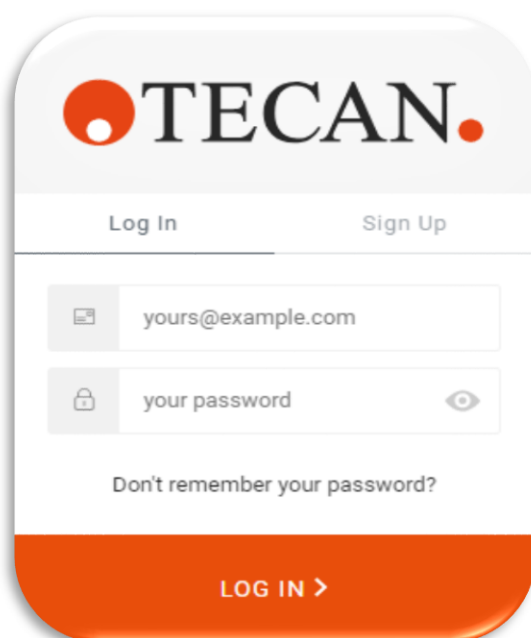
The screenshot shows the 'Configuration' window with the 'Registration' tab selected. The window has a sidebar with a gear icon and a globe icon. The main content area shows the following details:

Status	Configuration	Registration	About
Platform	Fluent	Size	1080
Serial Number 67865342			

Below the table, there is a yellow informational box with the text: "To proceed with registration, you'll require an Introspect account. If you don't have one yet, simply click Sign up to create an account. If you already possess an account, please click the Register IoT Client button to continue."

At the bottom right, there are two buttons: "SIGN UP" and "REGISTER IOT CLIENT".

- You will be asked to login with your Tecan Account credentials (email-address and password).



The screenshot shows the 'Log In' form for the TECAN IoT Client. The form has a header with the TECAN logo and two tabs: 'Log In' and 'Sign Up'. The 'Log In' tab is active. The form contains the following fields:

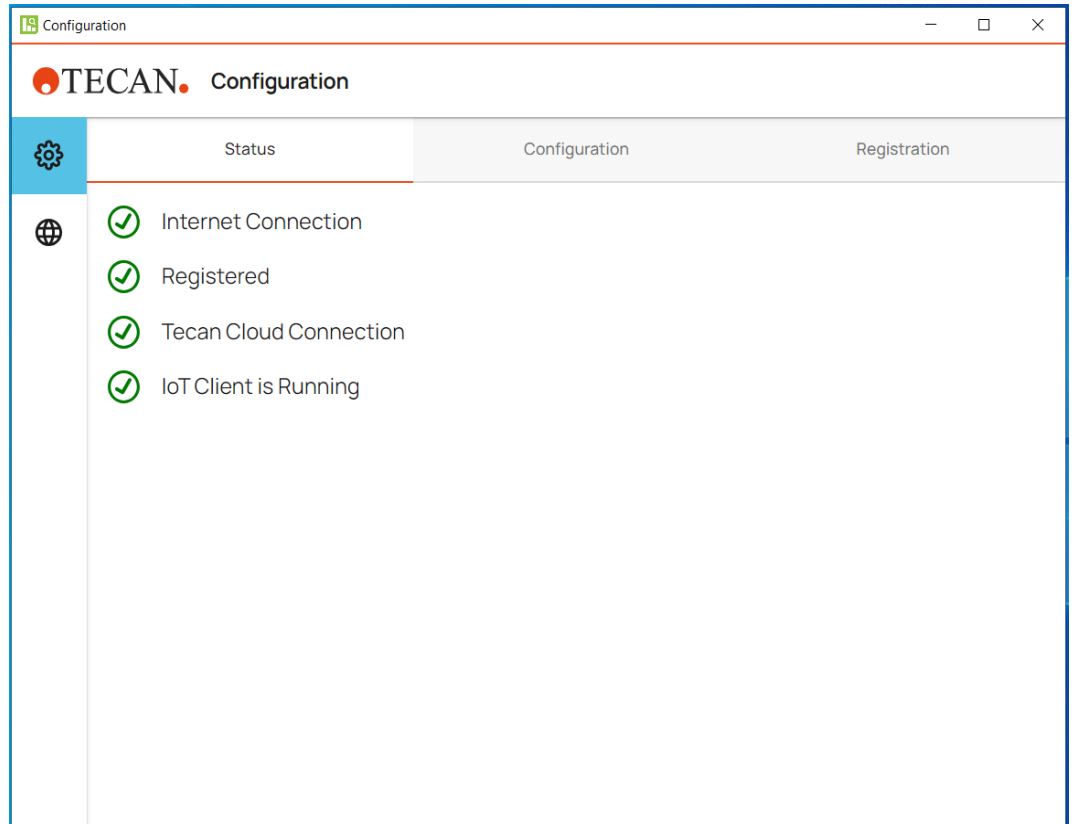
- Email address: yours@example.com
- Password: your password (with a toggle icon for visibility)

Below the password field, there is a link: "Don't remember your password?". At the bottom, there is a large orange button labeled "LOG IN >".

If you don't have a Tecan Account yet, click **SIGN UP** and fill out the sign-up form. You will get an email to activate your account and after the activation was successful your account is ready for the registration.

- Upon successful registration, a cloud connection is established.

8. Navigate to the Status tab to verify the system status and it should all be green and running.



In case some of the states are not green, check the following:

- **IoT Client not running:**
 - Try to start the IoT Client from the tray icon or contact your support.
- **Not Registered:**
 - Either the IoT Client is not running or the IoT Client is not registered. Initiate the registration process.
- **Tecan Cloud Connection:**
 - Either the IoT Client is not running, is not registered or the IoT Hub URL over MQTT (8883) cannot be reached. Check that port 8883 and 443 are open and <https://tecan-iot-hub-prod.azure-devices.net/> domain is whitelisted.
- **Internet Connection:**
 - This one is red if the IoT Client is not running or if the <https://digital.tecan.com> over HTTPS (port 443) cannot be reached. Check that port 443 is open and Digital.tecan.com domain is whitelisted.

3.4.4. Upgrade Installation

Upgrading directly from version 2.x to 3.0 is not possible. Version 3.0 is a significant architectural change; a clean installation is required. You must uninstall version 2.x completely before installing version 3.0.

3.4.5. Troubleshooting

Logfiles useful for troubleshooting IoT Client issues can be found at:
C:\ProgramData\Tecan\DataStore\IoT-Client\MAP.Services.Logging.Service\LogFile

3.5. Known Issues: IoT Client

ID	Title	Severity
PWI 40438	IoT Client does not start automatically when anything updated on Configuration tool	Low
PWI 40457	Remote update should be available all the time until it is installed in IoT Client	Low
PWI 40603	Web Cam Url not sent to IoT hub as a property update	Low

4 Revision History

Version	Description	Date
1.0	Initial version	2024-07-11