

# ImageQuant TL v10.2 and ImageQuant TL GxP v10.2

# Release Notes

## 1 Introduction

This document describes the implemented changes in ImageQuant™ TL (IQTL) 10.2, which replaces version 10.1.

### Installation

Follow the instructions for your operating system:

Windows® The installation starts from the MSI package, described in the

Installation Instructions.

Note:

A PDF reader is required to open the file.

macOS® Drag the ImageQuant TL application icon into your *Applications* 

folder.

## Compatibility

ImageQuant TL version	Operating system
v10.2	Windows 10 Pro
	Windows 10 Enterprise
	macOS Catalina 10.15, or higher
GxPv10.2	Windows 10 Pro
	Windows 10 Enterprise

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## 2 Main features of IQTL

- Image analysis software for Windows and Mac® with four modules:
  - Gel and Blot Analysis
  - Analysis Toolbox
  - Array Analysis
  - Colony Counter
- Image Editor for precise editing of both single and multi-channel files.
- Fully compatible with TIF, IMG, and GEL files, for example, from Amersham™
   ImageQuant 800 and Amersham Typhoon™ (see also section Known limitations)
- Create and analyze multiplex (.ds) files.
- Files up to 1 GB in size can be analyzed.
- GxP version available for 21 CFR Part 11 support.
- 3D view of images.
- Different normalization methods, including **Total Protein Normalization**.
- Lane comparison tool with similarity score calculations and dendrograms.
- Quantity calibration using curve fitting.

# 3 Release 10.2

#### **Features**

- In the Gel and Blot Analysis the new Purity analysis step allow the user to compare purity values for bands in lanes and import .asc files from ÄKTA™ chromatography runs. The chromatogram curves can be annotated and included in analysis PDF reports.
- Export Presentation image is available for all displayed images. The displayed image can be exported to PNG, BMP, or JPG files, with or without overlays. It is also possible to select the number of pixels (dpi) in the exported image.
- The pan and zoom tool have been improved both for images and profile curves. Zoom
  in on individual pixels and position objects in *Analysis Toolbox* with single pixel
  precision.
- Change pixel units to pixels, mm, cm, or inches.
- Auto-trace function added in *Analysis Toolbox*.
- pH unit introduced in custom markers.
- Some sections in the analysis report are optional and can be selected.

- Volume calculations allow negative volumes if the background is higher than the signal of interest
- In Quantity Calibration, at least thee bands need to be selected for curve fitting
- Copy table results function added in the results view.
- In Array Analysis module, multiple wells can be selected as a negative control or for reference.

#### **Corrected defects**

- M1 Mac processor is compatible with IQTL 10.2.
- · JPG image scale has been corrected.
- Multi-channel analysis of different images with different sizes is not possible.
- When analyzing multi-channel images and using in-channel normalize, the largest band for each channel is used.
- A standard deviation bug in Analysis Toolbox which occurred for saturated bands has been fixed.

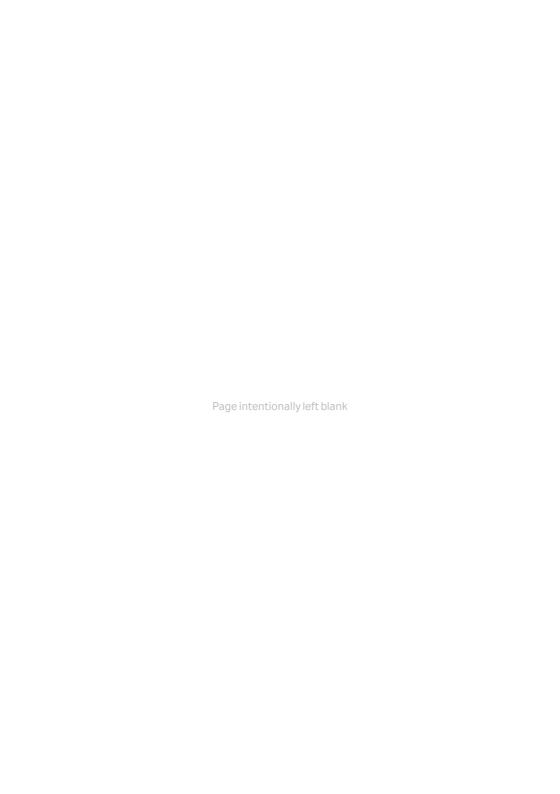
Minor *GxP* module defects have been fixed, for example, for emergency user login, exploring data in read-only mode, and in 10.2 it is also possible to view analysis data after request to *Sign Off*.

## **Known limitations**

- The unit for Contrast settings for GEL, IMG, and OD-TIF image files is arbitrary, it does
  not reflect the actual pixel intensities. For TIF files the contrast scale correspond to
  the pixel intensity values.
- Rotating 3D view image by left to right, and vice versa, can be done using the Shift + left-mouse button.
- Multiplex images can only be opened if a .ds file is in the same folder as the image files.
- If the region of interest is placed outside of an image then all values outside of the image are set to zero. Such calculated values are indicated with an asterisk.
- TIF files from ImageScanner 3 are not supported.
- IMG files from imaging systems other than Amersham Typhoon are not supported.
- Image Editor has limitations in file size for editing large images.
- Image Editor does not edit IMG files.
- For optimal performance, we recommend analyzing a maximum of four images in multiplex files.
- To terminate Windows services in **GxP**, follow the steps below:
  - 1. Type cmd in the Windows 10 search bar.

- 2. Right-click on the **Command Prompt** tool and select **Run as administrator**.
- 3. Type sc delete [service name] and press Enter.

This will remove the service and should allow you to create a new one without an error.







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