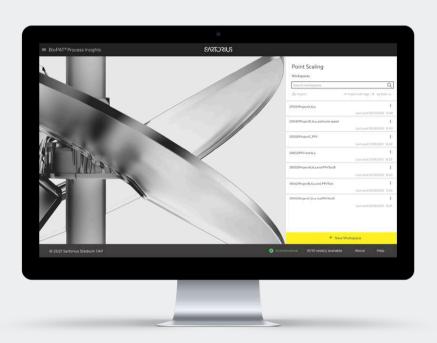
SARTURIUS

BioPAT® Process Insights (Release 2)

Technical Requirements for Installation



Technical Specification

Scope

Software product for predictive scale conversion and low risk process transfer between supported Sartorius bioreactors: Ambr[®] 15 and 250, Univessel[®] SU and Glass and Biostat STR[®] 50 - 2,000 L

Introduction

BioPAT® Process Insights is a software application to help bioprocess scientists operating Sartorius bioreactors to perform bioprocessing scaling. BioPAT® Process Insights is a standalone software application operating on a networked PC. The networked PC will typically be located in an office environment and should not be the bioreactor control PC in the lab.

BioPAT® Process Insights enables predictive scale conversion and low risk process transfer between supported Sartorius bioreactors. It allows the user to determine *in silico* whether the process is scalable and can be transferred between process development and manufacturing bioreactors.

Before installing the BioPAT® Process Insights software application on a server, please ensure the server meets the following hardware and software requirements.

Minimum Hardware Requirements

When the minimum hardware requirements are met, the application can handle up to 10 concurrent calculations.

| Property | Technical Requirement |
|-------------------------------|--|
| Central Processing Unit (CPU) | Intel Core i7 (4 cores) |
| Random Access Memory (RAM) | 16 GB |
| Solid-State Drive (SSD) | 512 GB |
| Storage Drive (SSD) | 10 TB |
| Display Resolution | 1366×768 1440×900 1600×900 1680×1050 1920×1080 |

Preferred Hardware Requirements

When the preferred hardware requirements are met, the application can handle up to 25 concurrent calculations.

| Property | Technical Requirement |
|-------------------------------|---|
| Central Processing Unit (CPU) | Intel Core i9 (10 cores) |
| Random Access Memory (RAM) | 32 GB |
| Solid-State Drive (SSD) | 512 GB |
| Storage Drive (SSD) | 10 TB |
| Display Resolution | 1366×768 1440×900 1600×900 1680×1050 |
| | 1920×1080 |
| | |

Multi-Seat Licence

Licenses allow you to use BioPAT® Process Insights for a set period with a set number of seats available. The number of license seats determines the maximum number of concurrent unique user sessions.

What actions or events create user sessions and consume a license seat?

A seat is occupied by:

| In Recipe Scaling | In Point Scaling |
|--|--|
| Each object (Cell Model, Recipe, Workspace) opened in edit mode | Each browser tab with the application open |
| Each ongoing import of Process Data | |
| Each ongoing Calculation | |
| Each ongoing Refinement | |

Note. One license compromises a set of 10 seats. The total number of available seats depends on the number of licenses purchased by your organization. The seats can be occupied by user sessions in the Recipe Scaling module as well as the Point Scaling module. The total number of available seats is shared between both modules.

Software Requirements

| Property | Technical Requirement |
|------------------------|--|
| Operating System | Windows 10 20H2 64-bit or Windows Server 2019 or Windows 10 Pro or later |
| Operating System Build | 19042 |
| Supported Browsers | Google Chrome (latest version)Microsoft Edge (latest version) |
| Installation user | A user who performs the installation must be in the company AD and must have administrator rights on the machine where the software is being installed. The machine must have access to the company's domain controller to be able to recognize the AD user. |

Internet Access

When installed on-premise on a networked PC, internet access is not a requirement to use BioPAT® Process Insights.

You can install the application on a server that is connected to the internet or on a server within the local network. If you would prefer to install the application on a server with no internet connection, you will need to download the installation file to a portable storage device in advance.

Licensing the software can be done online (over the internet) or offline (with no internet connection). If licensing offline, access to another computer with internet connection and a portable storage device is needed.

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