



# Leica SCN400

The fast, reliable and flexible way to scan and digitize your slides

Living up to Life

**Leica**  
MICROSYSTEMS

# Optimize Your Work with Rel

## Clinical and research customers benefit from:

- **High resolution** – Specially-designed optics produce high-quality, high-contrast images
- **Always in focus** – Patented Dynamic Focus Tracking reveals more of the specimen's details
- **Reliable, precise scans** – Minimize the risk of failed scans
- **High throughput** – Save time with unprecedented rapid scanning speed
- **Convenience** – Easily access and share specimen data from virtually anywhere
- **Flexible observation** – Zoom in and out of different areas of interest
- **Secure, authorized access to database** – Confidential specimens remain protected
- **Save time** – Quickly send glass slides digitally

## Clinical diagnostics – work conveniently

With the Leica SCN400, a pathologist's work can be accomplished in a fast, reliable, and flexible manner. The Leica SCN400 slide scanner provides a fully digitized image of a specimen that can be viewed and edited from virtually anywhere.

## Faster consultation – save times

Users benefit from the added safety and speed of the consultation workflow. By sending a specimen digitally, the time loss and risk of broken or lost patient specimens are things of the past. And the easy-to-use archiving system of Leica SCN400 Client provides secure access to all data.

## Interesting education – be efficient

The Leica SCN400 is the ideal instrument to support an instructor to provide more efficient and interesting education to students. It enables all students to work simultaneously with the most important and typical specimens. Students can conveniently review the entire specimen collection online.



“For research purposes only in the U.S. and the People’s Republic of China”

# iability, Speed, and Efficiency

## Reference laboratories and research institutes – work flexibly

Once a glass slide is digitized, Leica SCN Client makes it possible to access it from anywhere, and to process and compare the digital data. The possible observation conditions are as varied as a researcher's needs.

## High-throughput laboratories – faster slide handling

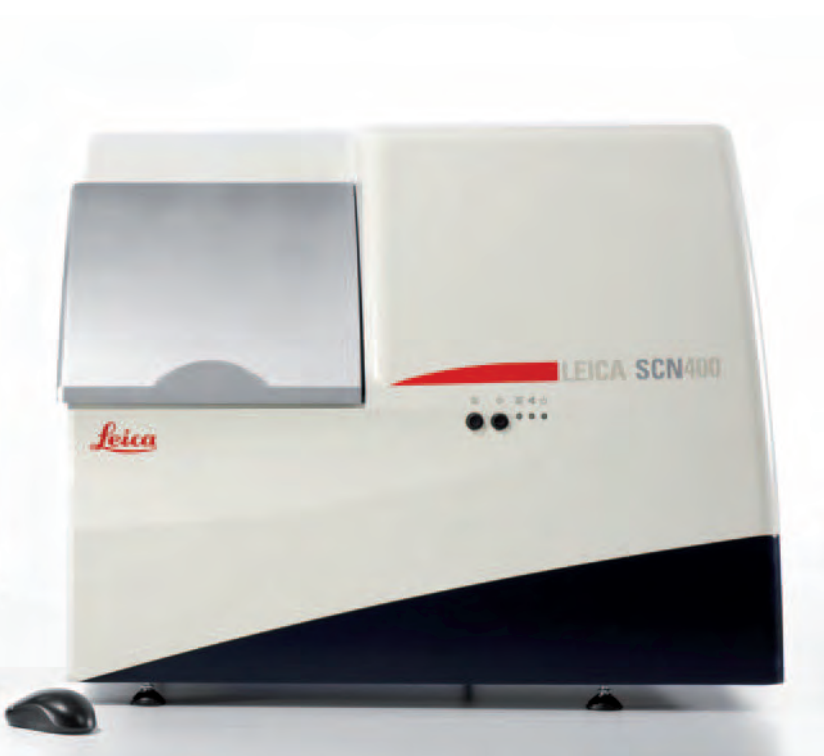
With the Leica SL801 Autoloader system, 384 slides can be scanned automatically with one-button operation. Additionally the user has the freedom to scan all slides using different scanning protocols. For even more time savings, loading and unloading of the Leica SL801 is possible at any time.

## Upgradeability – growing with the digital workload

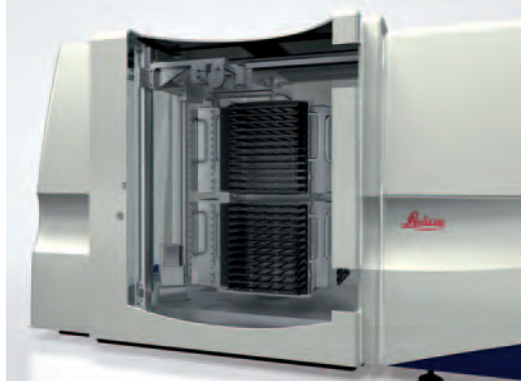
The Leica SL801 can be included with the Leica SCN400 or it can be upgraded at any time at the user's site.

## Research users benefit from:

- **Fast scanning** – Up to 384 slides can be automatically scanned without manual interaction
- **Adaptable processes** – Scanning can be done in one batch or up to eight sub-batches in automated mode
- **Flexible use** – The system can be used interactively to work with 48 slides at one time and prioritize and personalize settings
- **Save time** – Load slides whenever you need; even during the scanning process – the scanning procedure will continue automatically
- **Convenient handling** – One-button-operation for quick-starting repetitive tasks
- **Easy to upgrade** – The Leica SCN400 can be upgraded with the Leica SL801 Autoloader system at the user's location



Leica Design by Christophe Apothéloz



The Leica SL801 offers a 384-slide loading system for high-throughput scanning.

# Quickly and Reliably Scan, Digital



With the specially designed slide holder (Carrier) the user ensures safe and speedy handling.



Up to 384 slides can be automatically scanned without manual interaction.

## Scanning speed – fastest scanning process

Users benefit from the unsurpassed speed of the Leica SCN400. With its innovative focusing method, custom-designed optics, and the availability of 20x data, scanning takes less than two minutes on average. And with a 40x scan, the superior technique provides a digital image in less than 4 minutes on average.

## Leica Microsystems' optics – outstanding image quality

The Leica SCN400 uses high-quality optics that are specifically designed to address the unique demands of a whole slide scanner. Users benefit from outstanding image quality of the digital specimens created from a perfectly balanced optical system.

## Dynamic focus – benefit from the time savings

The revolutionary dynamic focus process significantly speeds up the scanning process of the Leica SCN400. The user saves time by eliminating the time-consuming step of pre-mapping. However, dynamic focus provides a pin sharp scan. This patented focusing method also minimizes the risk of failed scans – and again saving time.

## z-Stacking – convenient, fast process to scan thick samples

Users can scan thick specimens in a single-pass z-stack scan, which generates up to 100 layers of focus planes. And the Leica SCN400 quickly navigates through the digital sections.

## Barcode reader – fast, secure slide detection

For time saving and secure handling of the specimen slides the 1- and 2-dimensional barcode reader automatically associates the slide with the correct identification data.



# tize, and Share Complete Slides

## **Leica SCN400 Client – benefit from the integrated solution**

Leica SCN400 Client is an integral part of a complete integrated package to provide easy, fast operation of the slide scanner. Additionally Leica SCN400 Client provides a customized database, to manage digitized specimen slides conveniently and securely.

## **Leica SCN400 Client – the flexible way to handle digital slides**

The user can quickly scan each specimen slide with the exact scanning procedure needed. Additionally, the software's one-button operation makes it easy to perform repetitive tasks for multiple slides.

## **Leica SCN400 Client Workflow – the convenient way to process cases**

The software is easy to learn and speeds the workflow. Different workflow 'chapters' make it easy for a user to assign, view, examine, and review slides, and additional reviewers can easily share the appropriate images.

## **Leica SCN400 Client Archiving – the safer way to archive digital data**

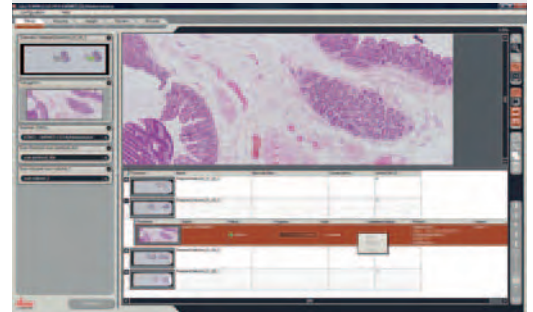
Leica SCN400 Client provides a safer way to archive valuable data. Digital images are automatically stored during the scanning process. Once stored, the user can easily retrieve the digital data sets and related information. Image storage is convenient and secure for fast future access.

## **Leica SCN400 Client Access – the secure gateway to digital data**

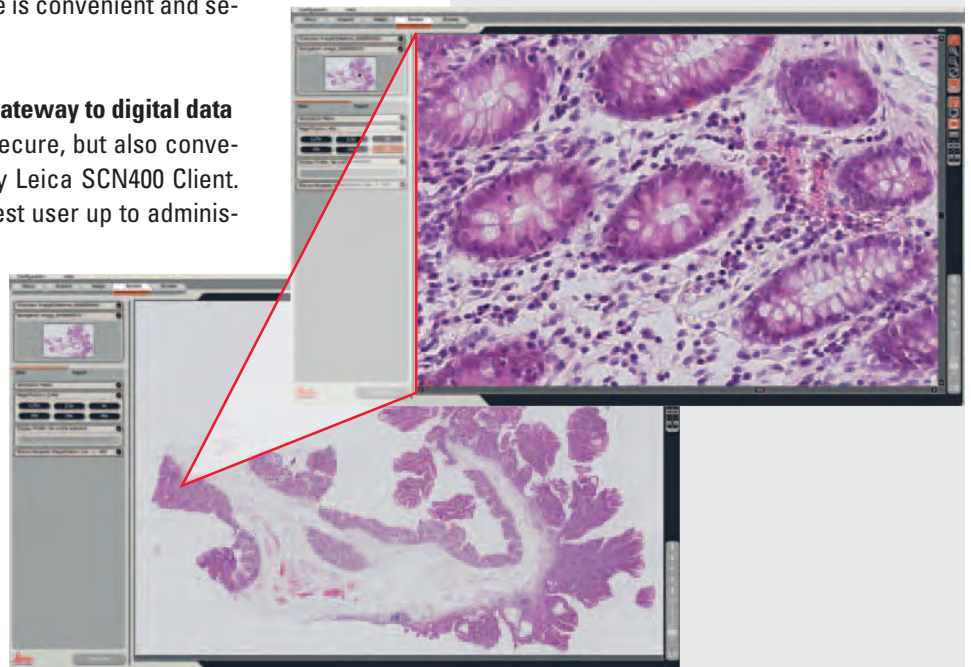
Leica SCN400 users will benefit from the secure, but also convenient and comfortable, access provided by Leica SCN400 Client. The different access levels range from guest user up to administrator rights.

## **From overview to detail, quickly with one scan**

The Leica SCN400 provides images of up to 40x magnification – and the average scanning time for 20x magnification is only 100 seconds.



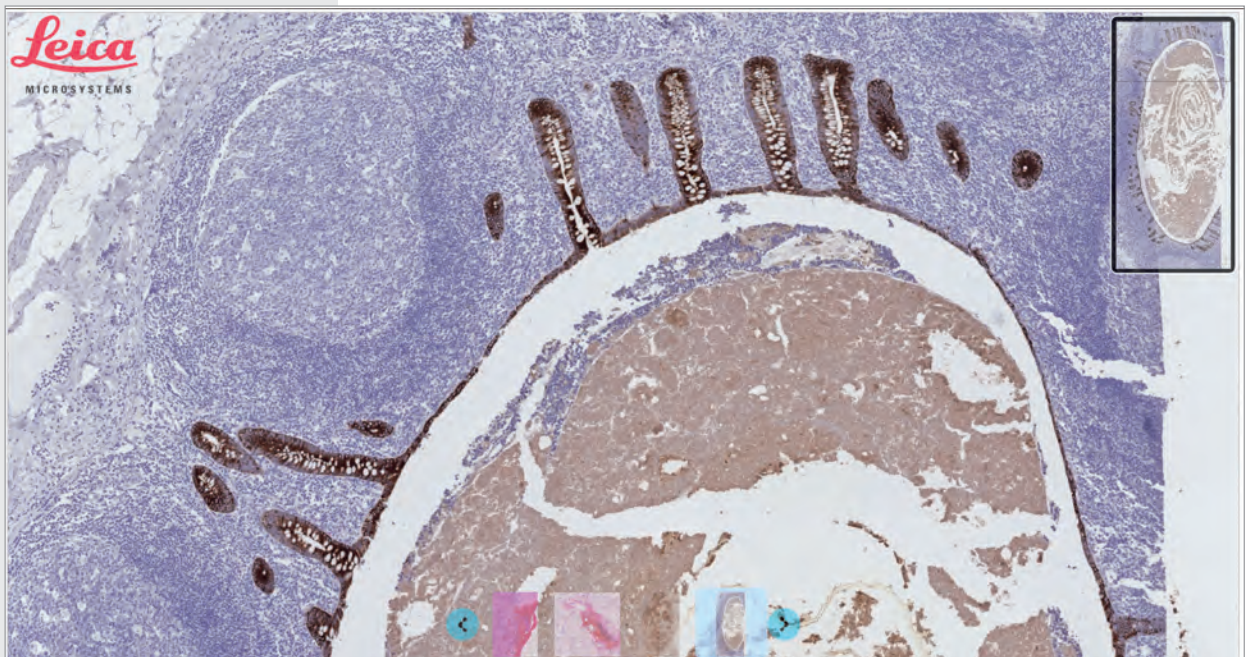
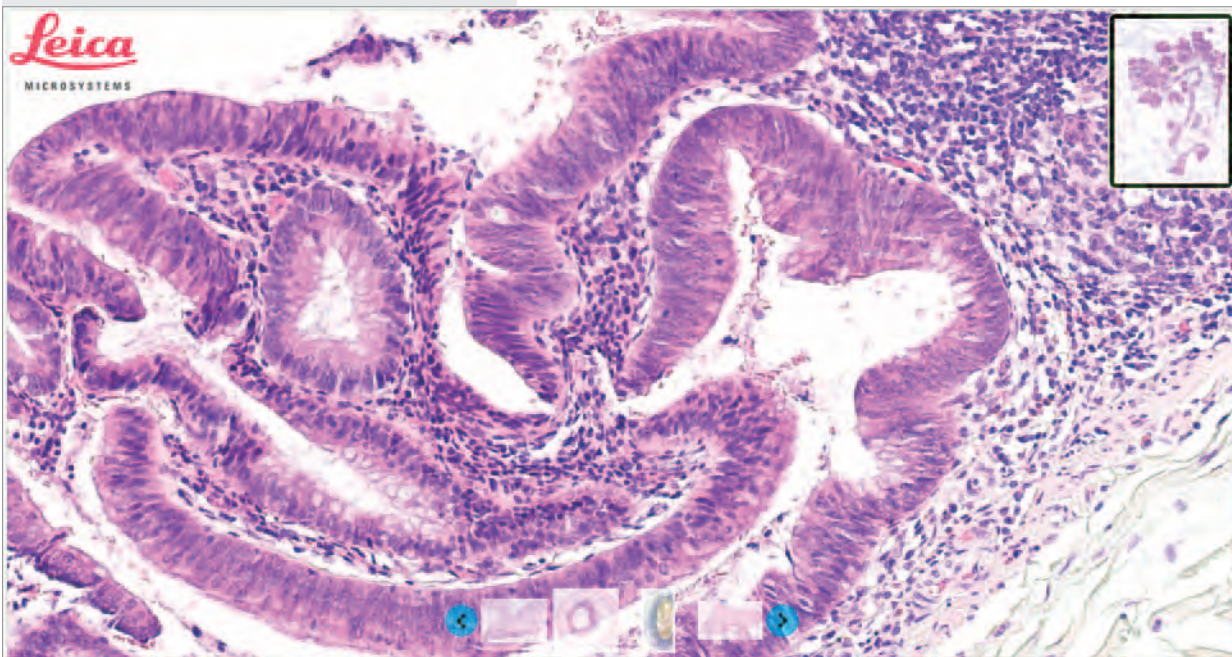
The Leica SCN400 Client enables the user to intuitively operate the Leica SCN400 slide scanner.



# Convenient Access via Internet

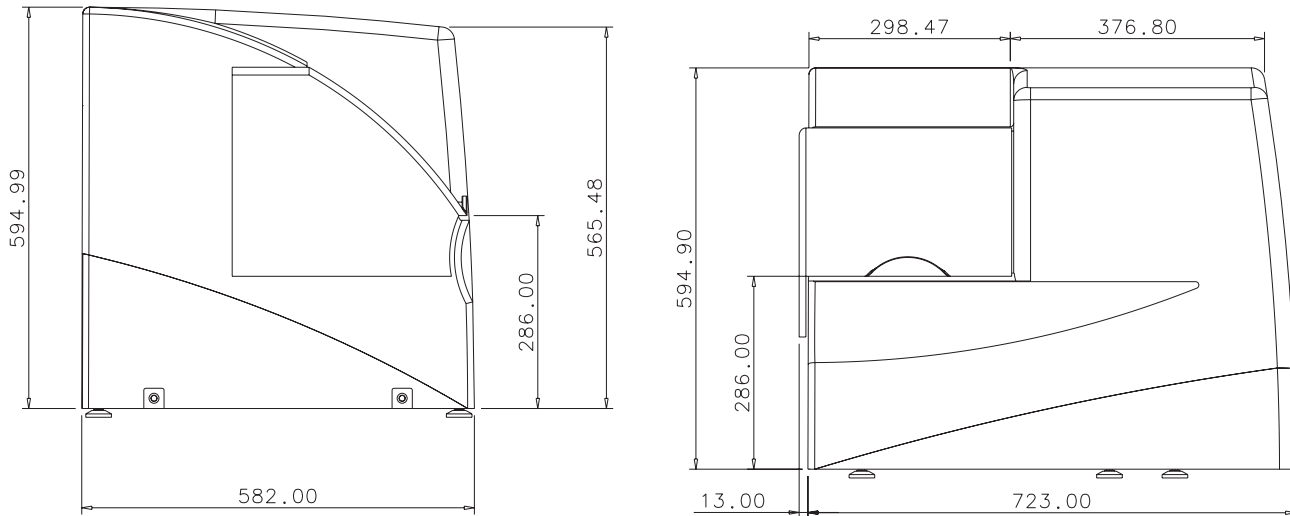
## The Leica Microsystems Viewer – convenient online access

Leica Microsystems' Viewer offer a convenient way to instruct students as well as easily share interesting specimens. Guests can comfortably observe any specimen slide online that resides in the public area of a facility's database.



# Leica SCN400

## Specifications



|   |   |  |
|---|---|--|
| <b>Slide loading</b>                        | 4 slides in a carrier, scanned automatically  |  |
| <b>Scanning speed</b>                       | – 20x magnification, 15 x 15 mm<br>– 40x magnification, 15 x 15 mm  | – 100 seconds<br>– 220 seconds                               |
| <b>Glass slide dimensions</b>               | Standard size   | 26 x 76 mm<br>(thickness 0.9 to 1.2 mm including coverglass) |
| <b>Scanning range (for high resolution)</b> | Standard size   | 24 x 62 mm   |
| <b>Objective lens</b>                       | Optical system with Leica lenses and optical components specifically designed for digital sensor scanning           |  |
| <b>Available magnifications</b>             | – 5x<br>– 10x<br>– 20x<br>– 40x   |  |
| <b>Spatial resolution</b>                   | 0.25 µm/pixel (40x magnification)   |  |
| <b>Scanning method</b>                      | – High speed, high sensitivity linear CCD device,<br>– User selectable (automatic, semi-automatic, manual scanning) |  |
| <b>Focusing method</b>                      | Dynamic focusing/Autofocus  |  |
| <b>Z-stacking</b>                           | – user selectable number of layers<br>– user selectable layer thickness   | – 1 to 100 layers  |
| <b>Barcode reader</b>                       | – 1-dimensional (code 128)<br>– 2-dimensional (data matrix)   |  |
| <b>Storage</b>                              | – 5 TB to 20 TB   |  |
| <b>Image export</b>                         | .jpg, .png  |  |
| <b>Dimensions (W x H x D)</b>               | 723 x 595 x 582 mm  |  |
| <b>Weight</b>                               | Approximately 97 kg   |  |
| <b>Compliance</b>                           | CE, <i>in vitro</i> Diagnostic Directive: 98/79/EG  |  |
| <b>Power supply voltage</b>                 | 100 to 240 V  |  |
| <b>Power supply frequency</b>               | 50 to 60 Hz   |  |

# “With the user, for the user”

## Leica Microsystems

Leica Microsystems operates globally in four divisions, where we rank with the market leaders.

### • Life Science Division

The Leica Microsystems Life Science Division supports the imaging needs of the scientific community with advanced innovation and technical expertise for the visualization, measurement, and analysis of microstructures. Our strong focus on understanding scientific applications puts Leica Microsystems' customers at the leading edge of science.

### • Industry Division

The Leica Microsystems Industry Division's focus is to support customers' pursuit of the highest quality end result. Leica Microsystems provide the best and most innovative imaging systems to see, measure, and analyze the microstructures in routine and research industrial applications, materials science, quality control, forensic science investigation, and educational applications.

### • Biosystems Division

The Leica Microsystems Biosystems Division brings histopathology labs and researchers the highest-quality, most comprehensive product range. From patient to pathologist, the range includes the ideal product for each histology step and high-productivity workflow solutions for the entire lab. With complete histology systems featuring innovative automation and Novocastra™ reagents, Leica Microsystems creates better patient care through rapid turnaround, diagnostic confidence, and close customer collaboration.

### • Medical Division

The Leica Microsystems Medical Division's focus is to partner with and support surgeons and their care of patients with the highest-quality, most innovative surgical microscope technology today and into the future.

The statement by Ernst Leitz in 1907, “with the user, for the user,” describes the fruitful collaboration with end users and driving force of innovation at Leica Microsystems. We have developed five brand values to live up to this tradition: Pioneering, High-end Quality, Team Spirit, Dedication to Science, and Continuous Improvement. For us, living up to these values means: **Living up to Life.**

### Active worldwide

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and representatives in more than 100 countries