

# Prior SL160

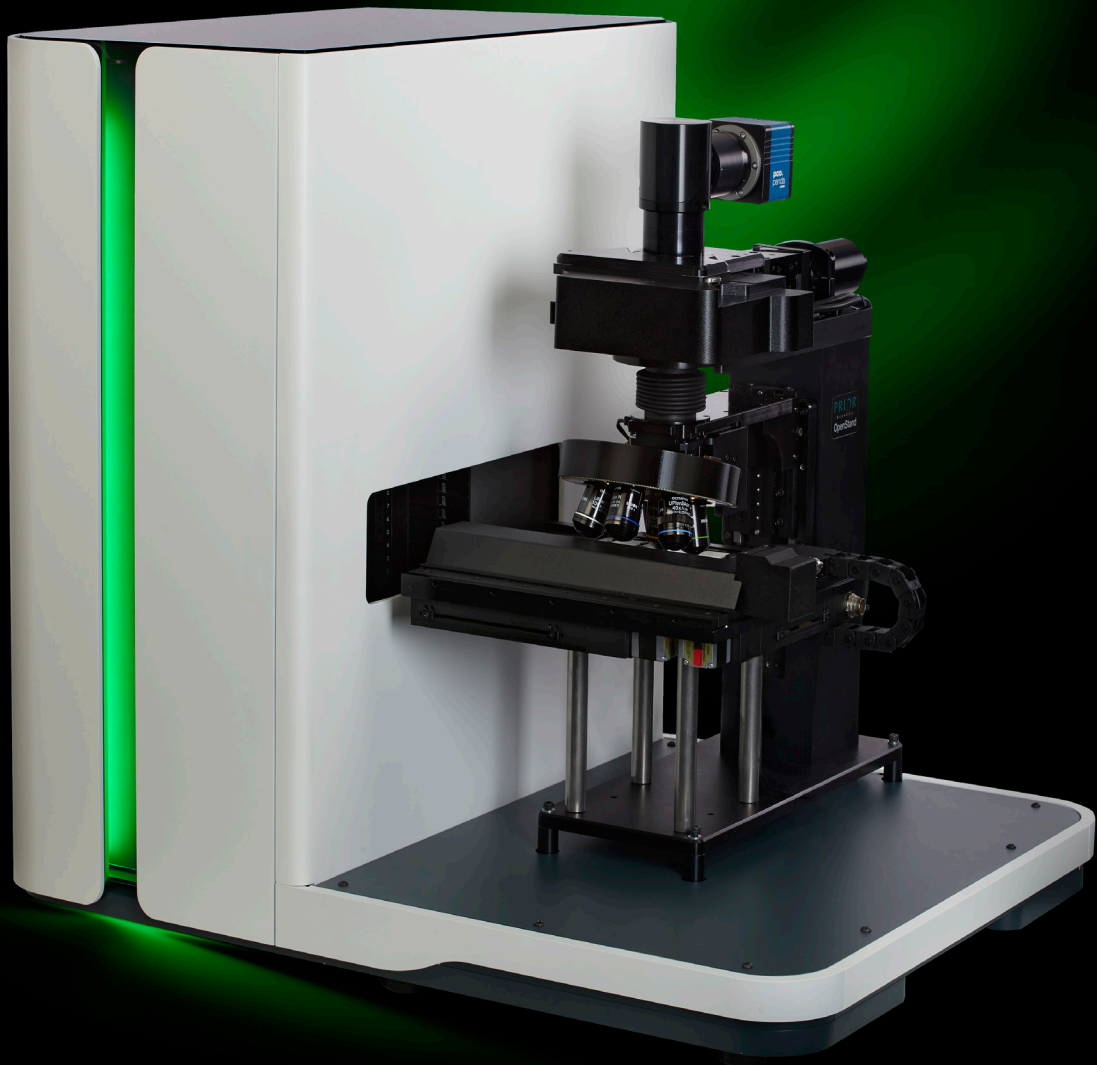
Slide loader for OEM  
and custom solutions



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Combining reliability and performance with ease of use

# The ultimate in slide loading and rapid scanning

## Prior SL160, a new platform for automated slide loading

The Prior SL160 Slide Loader is a fast and easy-to-use system to automate your slide scanning process. Prior has over 20 years of experience in slide loading and the SL160 has been designed from the ground up for the ultimate in robustness and reliability. This next-generation slide loading system has fully integrated sensors and encoders to monitor critical operations. Extensive life testing has proven its reliability in loading millions of slides.

The SL160 has a high capacity of 160 slides. Its open system architecture allows you to use a wide variety of microscopes and optics. It is the perfect platform to build your applications for imaging high volumes of slides with precision and reliability.



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## Advantages of the SL160 Slide Loader



### High capacity

160 slide capacity allows long periods of unattended use



### High throughput

Slide holders hold 4 slides to minimize the loading and scanning times



### Protected samples

Slides are secured in slide holders eliminating contact with moving parts



### Easy to integrate

The SL160 uses Prior's ProScan® controls and comes with a full SDK



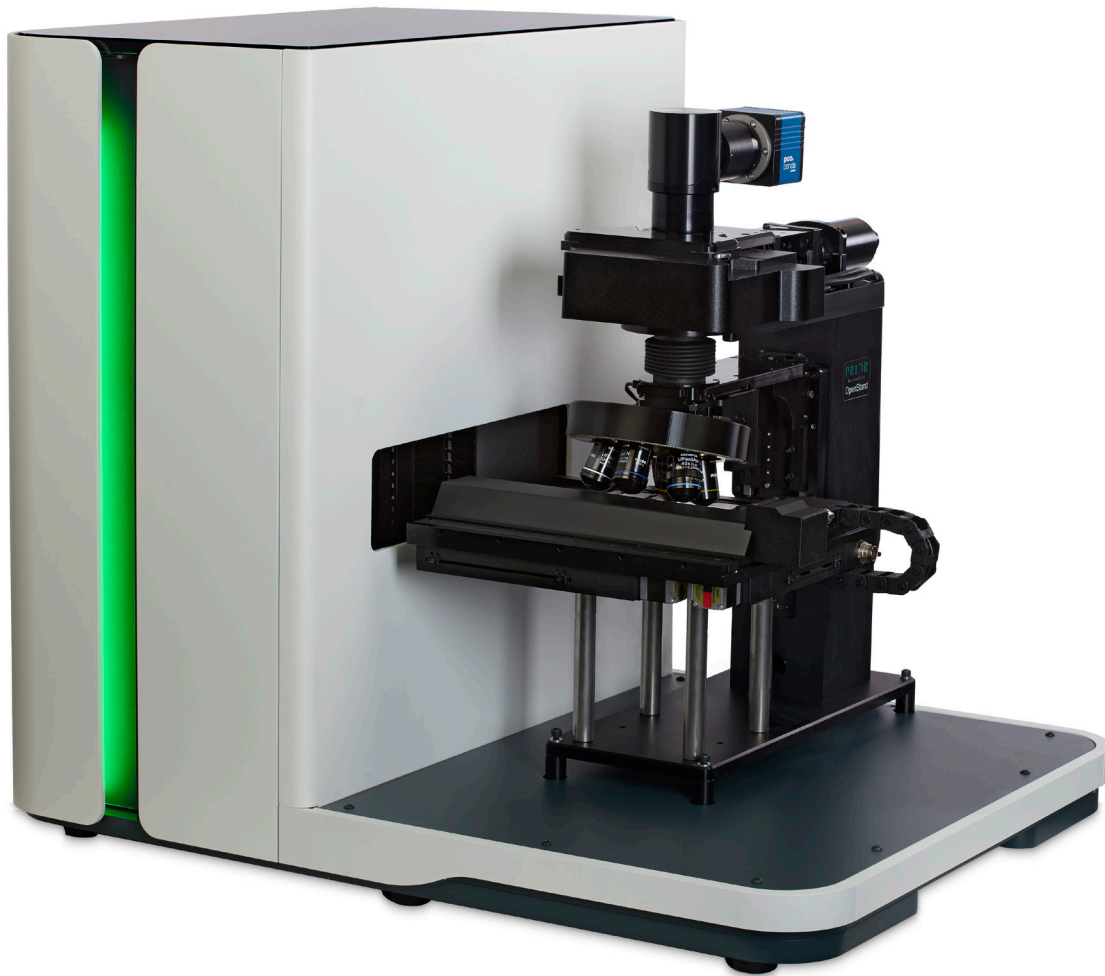
### Tailored to your application

Compatible with the OpenStand® or fully customized to your optics and accessories

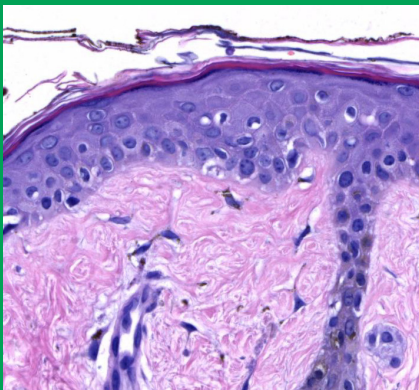


### Fast scanning and acquisition

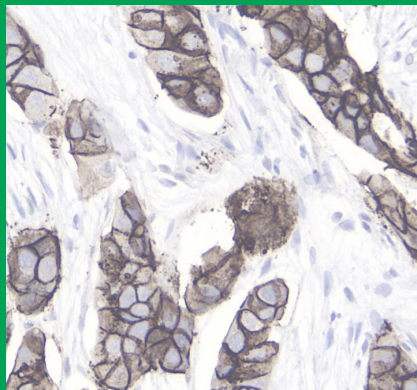
Robotics load and unload sample holders quickly



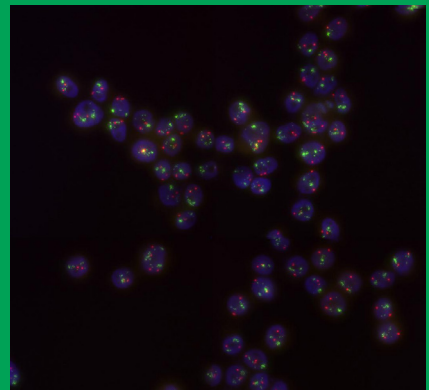
## Flexible for many applications



Digital pathology research



Cancer and stem cell research



Genetics

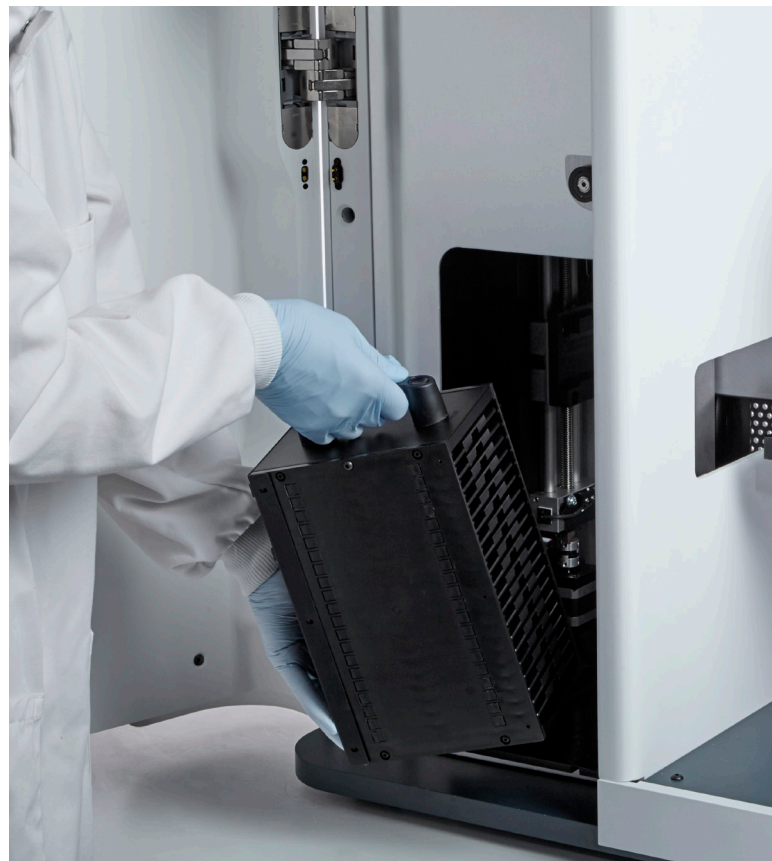
# User-friendly automation

## Designed for maximum slide protection

The precision slide handling in the SL160 minimizes the manual loading time while protecting and keeping the slides safe. This innovative design completely protects and supports each slide to virtually eliminate any chance of mishandling or damaging the samples. The slide holders are also cost-effective enough to use for slide storage. Mounted within the four slide holder slides remain safe avoiding all contact with moving parts of the loader while integrated sensors monitor the slide loading workflow.

## Fully integrated system

With the SL160 Slide Loader, you get a fully configured slide loader that is easily integrated with your software. The loader interfaces with Prior's OpenStand microscope or most modern upright microscopes. The loader system uses Prior's standard ProScan controls and comes with a complete and open software development kit, making it easy to integrate into your system.

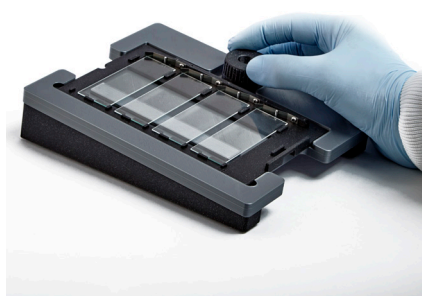


## Fast acquisition

The SL160 stage comes with an integral LED illuminator and optional preview camera for low magnification scanning to quickly locate the areas of interest, so you only scan what is necessary.

Scanning only the areas of interest minimizes the file size and the scan times of high resolution, high magnification images.





## The new slide holder design to keep your samples safe

The SL160 slide holders are simple to load, economical, and suitable for long-term slide storage. They securely hold the slides to the plate with several features that prevent slides from falling through or being damaged. Holders are available that can hold four 26 x 76 mm slides or two 52 x 76 mm slides.

The system comes with an optional slide assistance platform that provides effortless loading and unloading of slides.



## Slide hotels designed for high throughput

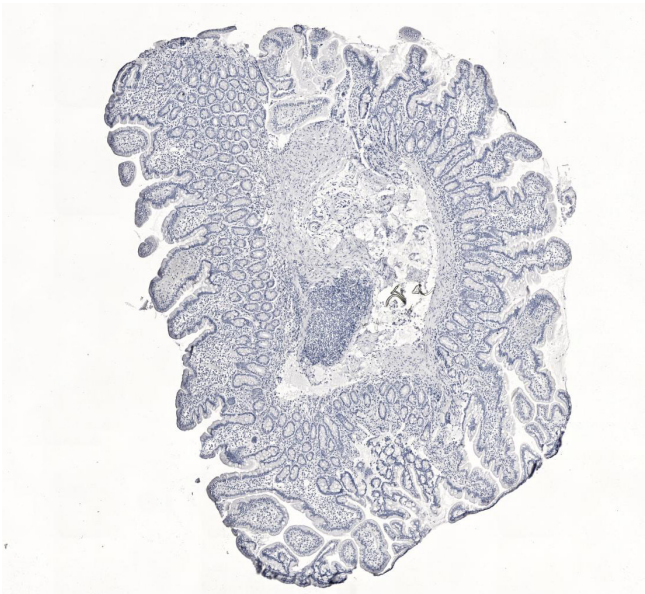
Each slide hotel holds 20 slide holders, for a capacity of 80 slides per hotel with two slide hotels per loader. The robotic mechanism in the loader transfers the slide holders from the hotels without touching the individual slides, ensuring slide safety and integrity.

## Safe transfer between bench and the loader

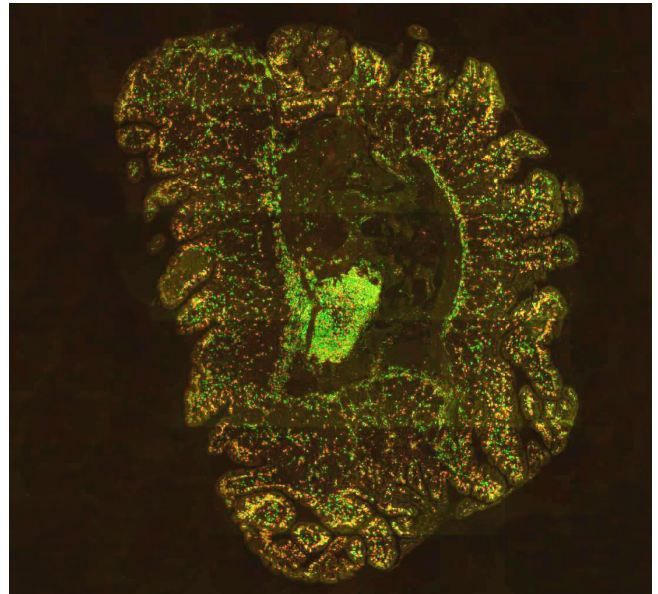
A retaining mechanism within the hotels maintains a firm grip on your samples, keeping them safe during transfer to and from the SL160 loader.



# Tailored to your application



Stitched brightfield image



Stitched fluorescence image

## Get the flexibility of OpenStand

Different imaging applications require varied and even multiple microscopy techniques. Combining the SL160 with Prior's OpenStand custom microscope system provides the hardware for a complete out of the box scanning solution, custom built for a specific application with only the required features, eliminating unneeded system cost.

Available options for the OpenStand include:

- LED, IR LED or Halogen Köhler or critical transmitted light illumination.
- Multiple height stage mounts
- Focus arm with single objective thread or two to six position motorized nosepieces
- Epi illumination
- Darkfield
- Biological or metallurgical objective choices
- Objective adapters for 32mm, 27mm, 25mm, and RMS threads.
- Laser autofocus



# Technical specifications

## System specifications

Capacity	<ul style="list-style-type: none"><li>• 160 slides</li><li>• Four 76 x 26 x 1 mm slides in each slide holder</li><li>• 20 slide holders per slide hotel x 2 hotels</li></ul>	<ul style="list-style-type: none"><li>• 80 slides</li><li>• Two 76 x 50 x 1 mm slides in each slide holder</li><li>• 20 slide holders per slide hotel x 2 hotels</li></ul>
Load time	10 seconds, 15 seconds with slide preview	
Scan time	Typically under 60 seconds (scan area 15x15 mm, 20x magnification)	
Microscope Compatibility*	<ul style="list-style-type: none"><li>• Prior OpenStand</li><li>• Leica DM6</li><li>• Nikon Ni</li><li>• Olympus BX63</li><li>• Zeiss Axiomager2</li><li>• Others available upon request</li></ul>	
Footprint	850 x 650 x 710 mm / 33.5 x 25.6 x 28 in (W x L x H)	
Weight	Slide loader base unit: approx. 41 kg Covers: approx. 33 kg Stage: approx. 4 kg OpenStand: approx. 11 kg	

## Stage specifications

Mean uni-directional repeatability	+/- 0.2 $\mu$ m
Minimum step size	40 nm (20 nm with 1 mm pitch ball screw)
Recommended speed	40 mm/s (20 mm/s with 1 mm pitch ball screw)
Maximum speed	100 mm/s (50 mm/s with 1 mm pitch ball screw)
Metric accuracy	0.2 $\mu$ m/mm
Ball screw pitch	2 mm (optional 1 mm pitch)
Motor type	200 step/rev
Encoders	Optional 100 nm resolution

\*Microscopes must have a fixed stage or must be able to reliably return to a fixed Z position for loading and unloading slides to the stage.

## Contact us

for more information on SL160 Slide Loader  
[prior.com/get-a-quote](http://prior.com/get-a-quote) or email: [inquiries@prior.com](mailto:inquiries@prior.com).

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