



PATHARCHIV™

Powered by Lab Improvements

PATHARCHIV

The Next Step in File Room Management

Automated digital block and slide storage

- Eliminates sample losses from typos and misfiling
- Frees-up staff time required to manage file room
- Tracks samples in archives and during loan out
- 2.3 times the slide density of competing systems
- Uses standard-size storage format containers



PathArchiv-B
Block Filing



PathArchiv-S
Slide Filing



PATHARCHIV™
Powered by Lab Improvements

Homegrown file room management

Clinical lab personnel have valiantly built homegrown file room management systems, first using paper and now using electronic spreadsheets. In both cases, the weak link is the manual recording and handling of samples, which suffer from the 'mean human error' rate, along with ongoing labor costs. These processes deal with missing samples on a regular basis, while simultaneously absorbing a significant percentage of the laboratory staff to sort, record, file, and pick samples as well as search for missing and lost samples.

A new era: Automated file room management

PathArchiv was designed with direct input from lab managers and file room personnel to eliminate the root cause of missing and lost samples: **manual labor.**

Address lost samples

Eliminate Sample Losses
from Typos
and Misfiling

Lab Managers' wish list for their next solution.

- Reduce / eliminate lost samples
- Purpose-built to manage sample loans and collections
- Reduce file room FTE
- Minimize implementation costs
- Minimize storage container costs
- Maximize storage density



6 Essential Principles of PathArchiv

Principle 1

Eliminate typing and transferring of sample UID's into the recording system – the system automatically reads the existing barcode for the sample it is currently handling.

Principle 2

Robotically place or select the location in the storage magazine associated with the barcode read.

Principle 3

Automatically update the database with the sample UID and its location.

Principle 4

Track loans to a contact for a set amount of time and provide a recall list for overdue samples.

Principle 5

Eliminate manual refiling of samples - the system refiles them with the current filing workflow.

Principle 6

Maintain storage density and use existing storage shelving.

Staff Time Savings with PathArchiv

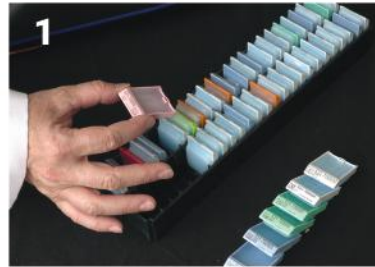
The automated workflow reduces the amount of personnel time needed to handle, record and manage the samples in the archive. PathArchiv puts the data at your fingertips. With a few clicks, samples can be traced by case, loan status, location or age, freeing up personnel to perform higher - skilled work tasks.

Still, many labs brace themselves and wonder what the cost will be to overhaul their existing shelving and storage container systems. SPOT Imaging designed the system from the ground up to maintain standard storage formats and increase densities, ensuring an efficient and cost effective transition to the PathArchiv file room management system.



PathArchiv-B paraffin block workflow

- 1 The PathArchiv-B workflow starts at microtomy where the blocks are placed into the standard format block magazines that hold 50 standard blocks (2 rows of 25).
- 2 Each magazine is labeled with a barcode identifier.
- 3 The magazine is then loaded into the PathArchiv-B where the magazine identifier is read followed by, a read of each cassette's barcode and its position. This data is recorded in to the PathArchiv database.
- 4 Scanned magazines are loaded into labeled storage boxes, which are placed on the storage shelving.



PathArchiv-S slide workflow



50 Minutes of unattended operation

- 1 The PathArchiv-S workflow starts with the loading of up to 5 labeled slide magazines.
- 2 Up to 200 slides collected from the case manifest folders are loaded into the input slots.
- 3 Each slide is picked up, the label scanned, and the slide put into a magazine. An image of the barcode label, its identifier and its position in the magazine are recorded into the PathArchiv database.
- 4 Scanned magazines are then loaded into labeled storage boxes, which are placed on the storage shelving.

PathArchiv handles exceptional samples

The PathArchiv system handles whole mount blocks and slides as well as broken slides that cannot run through the standardized automation. These low volume "Exceptional Samples" are recorded into the main database by the **PathArchiv ExTrak™** scanner, a human-assisted automated recording system. This ensures the management of all samples, standard or exceptional.





PathArchiv retrieval and loan management workflow

The PathArchiv retrieval order form is available from any network-connected device. Simply click the PathArchiver bookmark in your browser, enter your user passcode and select Retrieval. Pathologists submit their request by entering the case number, samples needed, delivery location, contact and loan duration. This completed entry systematically eliminates the unrecorded "sneaker" loans that cause sample losses.

Sample Pick Sheet

Date: Sep 27, 2022, 05:14 PM
Generated By: Philip Merlo
Sort by Map Location | Order # | Case #

Select All Samples
Total Slides: 0
Total Blocks: 4

Stored at: (default location)

Year	Box	Magazine	Slides	Blocks
22B	0001	1	0	2
<input type="checkbox"/>	S22-700000-A12		A-12	ORDER# 00000002 Man. Cytology Lab
<input type="checkbox"/>	S22-700000-A10		A-24	ORDER# 00000003 Man. Cytology Lab
22B	0001	2	0	1
<input type="checkbox"/>	S22-700000-A11		B-18	ORDER# 00000003 Man. Cytology Lab
22B	0001	3	0	1
<input type="checkbox"/>	S22-700000-A14		A-20	ORDER# 00000003 Man. Cytology Lab

Collection made easy

Picked samples are recorded and tracked against their due date and, if late, posted to the "Chase list" for follow-up. Individual samples are tracked so that even partial returns are identified ensuring the return is complete. Returned samples are processed with the newly filed samples eliminating the labor, errors and third-party charges associated with legacy manual sequential filing.

PathArchiv tracks every sample across its entire life in the system and does not rely on a sequential filing order.

Reports

- Added To Needs Attention
- Events
- Usage - 60% full
- Notifications
- Picks Added (daily)
- Samples Added Per Device
- Samples Added Per Device (Daily)
- Samples Added Per Device (Monthly)
- Samples Picked (daily)
- Total Samples Added Daily
- Total Samples In Lab

Access the recorded data

The PathArchiv software records a full history of each sample's transactions, thereby delivering standardized archival reports, sample searches and data analysis. Data integrity is ensured by internal backups, as well as by the institutional central server backups, providing a routine recovery of sample tracking data, if needed.

Retrieval Order

Created By: Philip Merlo
Requested By: [Search]

Destination Location: Man Clinic
Department: Histology Lab

Date Due Back: 10/11/2022
Add Samples From Case: [Search]

Samples Currently On This Order

Slides: no slides found

Blocks:

- S22-700000-A10
- S22-700000-A12
- S22-700000-A11
- S22-700000-A14

Mark these all for Permanent Removal

Pick the order

The completed order is then posted to "Retrievals List", which file room personnel use to generate the order picklist.

Chase List

Lab Tiny: 2 samples

Case/Sample#	Order#	Days Late
S21-700000 / A1-2	00000002	15 days
S21-200000 / A13	00000002	15 days



PATHARCHIV™
Powered by Lab Improvements

Secure samples and save costs

Make the approval decision easy for your budgeting committee. PathArchiv installations not only secure samples from loss but also deliver cost savings.

✓ Save on cost of acquisition

System acquisition is kept simple and affordable. PathArchiv uses an industry-standard storage format that many labs already have shelving for, eliminating the need for proprietary cabinets and racks.

IT setup and integration is minimized. PathArchiv's self-hosted web server connects all the system accessories on a LAN that is then bridged to the institution's network for user access and service.



✓ Save time running your file room

PathArchiv installations have shown significant staffing reductions, compared to other systems, allowing labs to redirect their resources. Depending on the archiving method and sample volume, labs have reduced file room staff hours 2-8 times. These improvements deliver savings year after year.

✓ Save on consumables

PathArchiv's standard-format, low-cost consumables and the near 100% storage density save institutions thousands of dollars annually. These savings set a new consumable base cost that provides savings year after year.



75% Verses **98%**



✓ Save on 3rd party storage

PathArchiv's storage density is the highest of any solution available with a 25-30% density increase over legacy sequential storage and over a 200% higher slide storage density than competitors. On-site storage is increased and off-site storage requirements, and their associated fees, drastically reduced. Refiling charges required with sequential sample storage methods are eliminated, generally halving the previous charges for 3rd party retrieval and refiling.

Run the numbers...

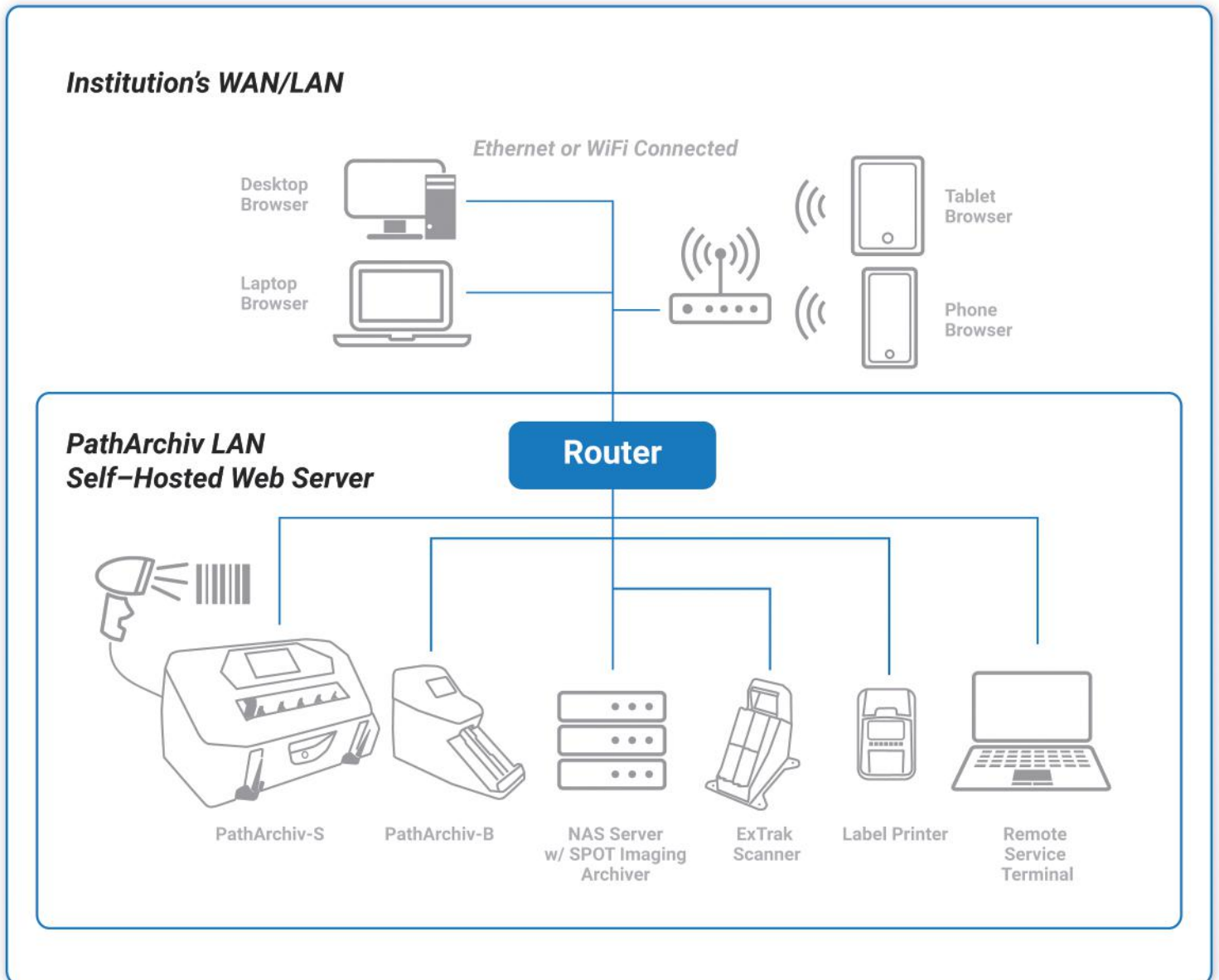
Every lab is different and putting together spreadsheet calculations is laborious. Our ROI calculator inputs your lab's parameters and provides a cost output for each of the above subsections. We compare your current storage system, the competitors' and PathArchiv's storage systems. This critical information provides a powerful working model for you and your budgeting team to analyze the dramatic improvement PathArchiv can achieve for your lab operations.



PATHARCHIV™ Data architecture

IT setup, integration and maintenance are minimized with PathArchiv's self-hosted web server and IP-mounted system components. Each component logs into the network-attached storage server, providing or receiving data and commands as the situation requires. System access for users is set up via browser bookmarks and user passcode login making it easy to add users centrally and allowing user access from any network-connected device.

Samples are tracked over their lifespan via a full transaction history that is stored to the network-attached storage server. Data integrity is ensured via NAS RAID mirroring with long-term backup during the institution's automated after-hours backup protocol.

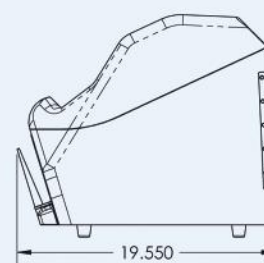
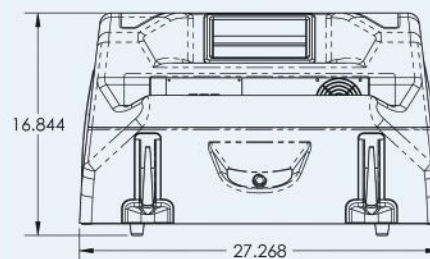




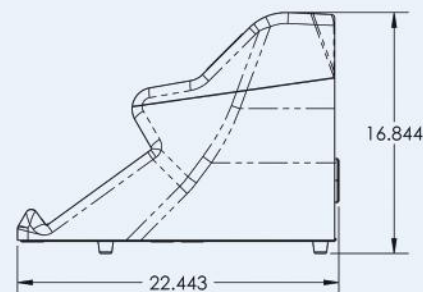
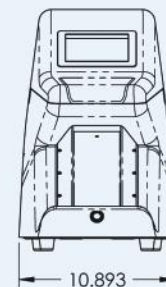
PathArchiv Specifications

	PathArchiv-S	PathArchiv-B
USB 3.0 ports	2	2
LAN port	1	1
Handheld barcode reader	Standard	
Display		
Touch screen	Full color LCD	Full color LCD
Power / Environment		
Current	1.0 amp	1.0 amp
Power supply	120-240 VAC	120-240 VAC
Frequency	50/60 Hz	50/60 Hz
Operating temperature	41° - 86° F / +5 - +30°C	41° - 86° F / +5 - +30°C
Certifications	CE, FCC Class A, RoHS CSA/UL Electrical Certification	CE, FCC Class A, RoHS CSA/UL Electrical Certification
Instrument size	PathArchiv-S	PathArchiv-B
Height	17" H (431.8 mm)	17.5" H (444.5 mm)
Width	27" W (685.8 mm)	10.75" W (273.05 mm)
Depth	19" D (482.6 mm)	22.5" D (571.5 mm)
Weight		
Instrument	52 lb / 23.6 kg	34 lb / 15.4 kg
Sample size capacity		
Standard slide size	1.007" x 3.007" (25.6 mm x 76.4 mm)	
Standard block cassette size		1.122" x 1.614" (28.5 mm x 41 mm)
Sample processing and storage		
Samples per instrument	200	50
Samples per magazine	200	50
Magazines per storage box	8	8
Samples per storage box	1,600	400
Storage box size	12" W (304.8 mm) 12" D (304.8 mm) 4" H (101.6 mm)	12" W (304.8 mm) 12" D (304.8 mm) 4" H (101.6 mm)
Magazine size	2-5/8" W (66.675 mm) 5-5/8" D (142.875 mm) 3-1/8" H (79.375 mm)	2-5/8" W (66.675 mm) 11-1/8" D (282.575 mm) 1-1/4" H (31.75 mm)
Sample processing rate (Samples per hour)		
	240 Slides/hr	1500 Blocks/hr

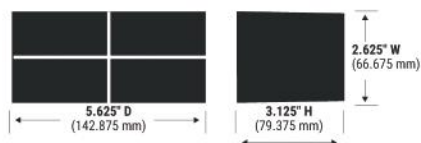
PathArchiv-S Slide Filing



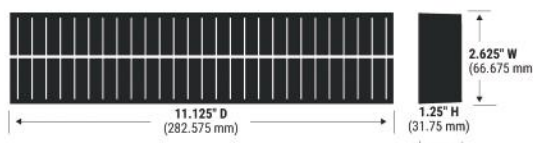
PathArchiv-B Block Filing



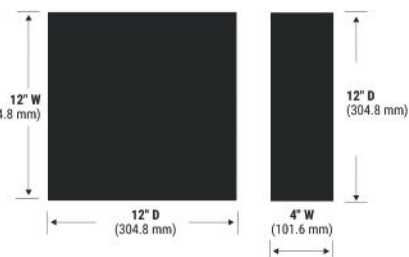
Slide Storage Magazine



Block Storage Magazine



Outer Storage Box



SPOT file room management

File room teams need:

Complete system for histology sample management

Elimination of lost samples

Reduction of file room staffing

High storage density

Affordable consumables and shelving

Easy to budget

Easy to implement

Easy to set up, learn and use with any browser

PathArchiv provides:

Purpose-built, histology sample management system

Fully automated and tracked sample placement and recording

Automated work process reduces staffing by 2-8x

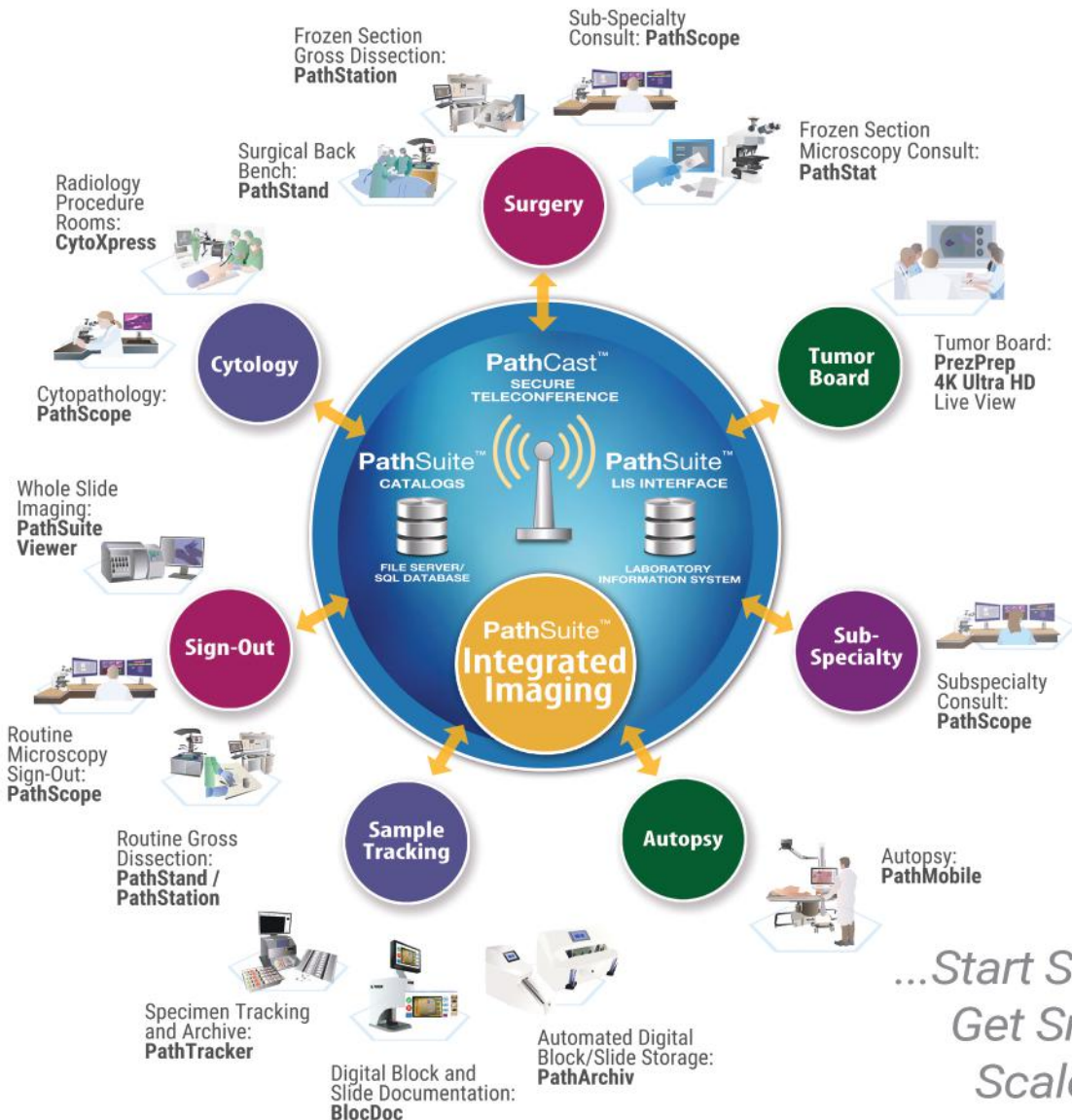
Eliminates empty reserve space increasing density by 33%

Uses industry standard 12" x 12" x 4" boxing system

Staff, consumable and storage savings results in ~1 Year ROI

Simple web service based LAN architecture is easy to deploy

Simple network-based web browser



...Start Small,
Get Smart,
Scale Up!