

Adopting Digital Pathology: The Guide To Implementation



Summary:

1. Easy steps to start adopting digital pathology
2. Why reliability and product support affects your reputation
3. The importance of having the vendor scan your slides
4. Imaging solutions to fit your lab's production volume and TAT per service
5. Why you don't need a LIS or LIS integration
6. DP solutions don't have to be expensive



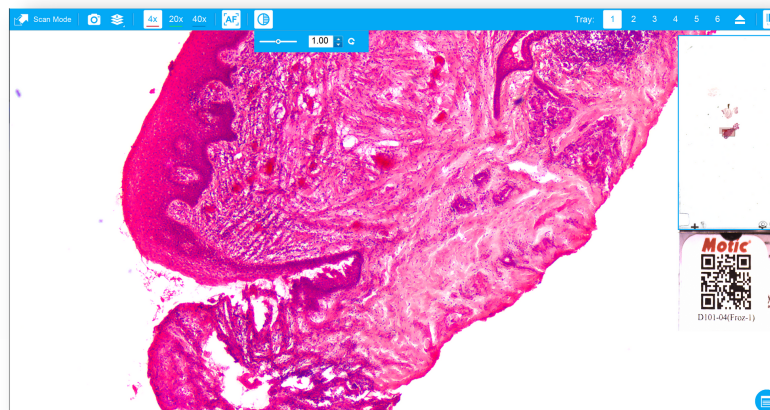
It's Okay to Start Small

Starting small allows your lab to keep the changes minimal, validate incrementally, and see the benefits much faster. Start with one use case or one scanner. Doing so will allow your organization to seamlessly transition into digital pathology — one case at a time. Here are a few use cases that your lab can start with:

Frozen sections are a simple first use case to win over your staff. Even a single scanner with Live Viewing capabilities can offer immediate convenience and operational efficiency to your lab or hospital network. From the comfort of their office, pathologists are able to stream slides in live time from the scanner in the surgical suite, allowing for a rapid assessment - meaning pathologists can now perform frozen sections without leaving their office chair! This is known as live remote digital pathology.



Tumor boards and multidisciplinary team (MDT) meetings have remarkable advantages to going digital. One advantage of going digital is the powerful ability of the viewing software to organize annotations and present the intended area of interest in sequence. The viewing software will center each annotation at the given zoom level, in the correct sequence across each slide. Digitally describing a case by clicking forward drives the wow factor far faster than glass under a microscope.



Frozen Section Software

During your team's next video call, have one team member present virtually from their office. Your team will quickly come to realize that multi-headed microscopes are a nuisance of the past.

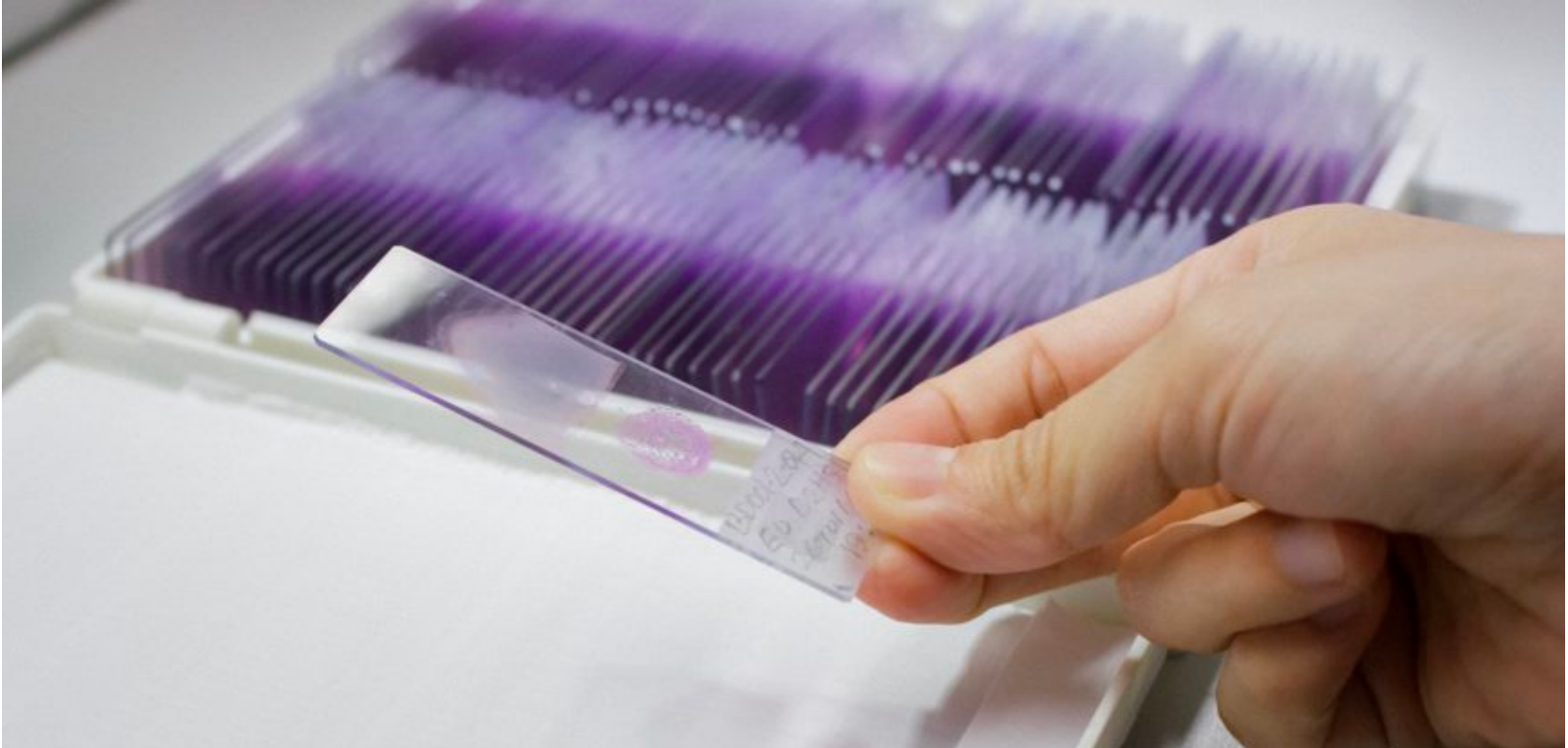
By embracing digital, your team can enhance their conference and lecture presentations with clear-cut, captivating visuals — no more fumbling with dull slideshow images. The impressive image viewer allows you to seamlessly zoom and navigate through a digital image, taking your slideshow visuals to the next level. No more static slideshow screenshots!

Once your staff is comfortable with tumor boards, receiving and requesting second opinion cases is simple. Start small by having a general pathologist scan just a few difficult cases per week, and having a specialist assess them afterward. The key is to ensure the digital pathology vendor has an easy-to-use case management software designed to move cases between pathologists and sign out reports.



Key Takeaways:

Start one use case at a time, progressing easy wins until your organization has fully captured all the benefits of digital pathology.



Service and Reliability

Your reputation matters. You deliver trust, and so should your digital pathology vendor. If the scanner or software has issues, it will disrupt your workflow, your deliverables to the pathologists, and ultimately the pathologist's deliverables to the clinician. Make sure that you and your vendor are on the same page: 24/7 technical support, on-site servicing, a good track record of reliability, and guaranteed turnarounds are all good indicators that the vendor has your back.

We have all heard stories about how one hospital's operations were disrupted for over a month because the vendor — despite selling a service contract — lacked USA-based service workers. Another hospital called for help, but the technical support line was closed and would not reopen until the following day.

Key Takeaways:

Choose a vendor with a stellar history of reliable customer support and scanning performance. It is risky to choose a new vendor that may not always be available to support your operations.



It's Okay to Ask Your Vendor to Scan Your Slides

Many pathologists have told us that they never had the chance to verify a scanner's performance on actual case slides before purchase. Instead, the vendor used demo slides that did not relate to their tissue types or typical stains. Suboptimal optics were used in some cases because the vendor did not know the samples would mainly be un-coverslipped. It scanned my one tissue well, but can it scan all my tissue types well? If you have a variety of tissue types, make sure the scanner can capture high-quality scans of them all.

Before making a purchase, we recommend asking the vendor to scan a few of your slides. This allows you to assess the diagnostic quality of the actual image produced from your slides.

Key Takeaways:

Although vendors will have most of the answers to your questions, it is wise to confirm they can help by verifying that their image quality matches your needs.

Make Sure the Vendor Knows Your Lab's Production and Volume and TAT Per Service

Hospitals and pathology groups offer numerous services, have varying caseload volumes, and have different turnaround times (TAT). For example, cytology and histology require different processes, prep times, and scanning capabilities. As your services expand, your operations will benefit from having various slide capacity scanners.

A continuous loading scanner can be assigned to handle the larger daily volume of prominent cases. Collect nonpriority cases for overnight scans. Urgent cases that arrive sporadically during the day can be scanned in small batches on lower volume six-slide scanners.

Because slides are typically prepared the night before the pathologist receives their caseload the next morning, do not let vendors trick you into paying a premium for the fastest scanner. In any case, the slides will be scanned overnight, and the images will be held for hours until the pathologists arrive.

What about quality control? Lab managers groan when a pathologist calls to report a blurred image that needs a rescan. Attempting to locate a slide that has already moved forward from the imaging area causes a significant disruption to the workflow and TAT. To avoid this, make sure your continuous loading scanner has quality control features that immediately alert the histotechnologists at the scanner station before the glass moves forward.



Key Takeaways:

Vendors have a lot of experience implementing various workflows, so ask for their advice on how to handle the current volume and scale as your volume increases.

You Can Benefit From Digital Pathology Without a LIS or LIS Integration

You do not need a Laboratory Information System (LIS) or a LIS integration to benefit from digital pathology. Experienced digital pathology vendors offer case management software that functions similarly to a LIS or can work in tandem with your LIS at a fraction of the cost.

A LIS integration is a significant project involving high costs, long timelines, and consistent personnel resources across your organization, LIS vendor, and digital pathology vendor.

LIS integration ROI will be worthwhile only after high caseloads have been processed across a long period of time. The scanner will read the barcode from each slide, create the patient case, and parse the information into the case management software — all of which are done automatically.



The histotech or physician assistant will only need to copy the few remaining fields into the case, but if you are just getting started, it is better to get the benefits faster and for less investment.

Key Takeaways:

Vendors have a lot of experience implementing various workflows, so ask for their advice on how to handle the current volume and scale as your volume increases.

Digital Pathology Doesn't Need to Be Expensive

When we asked our medical community of pathologists and lab managers what they believed is the greatest barrier to the adoption of digital pathology, one recurring theme emerged: cost. Because of the belief that adopting digital pathology is expensive, many were reluctant to take it into consideration.

In the early days of digital pathology, developing scanners was an expensive process due to the significant research and development costs involved. Unfortunately, despite a considerable reduction in production costs, the majority of vendors continue to charge astronomical prices.



Thanks to Motic's 30 years in optics design and manufacturing, we have long achieved a line of high-quality scanners that are reliable and innovative — and at less than half the cost of leading competitors. When your hospital or pathology group wants to expand to serve a larger region, affordable digital pathology adoption, Motic believes, is key.

Key Takeaways:

Choose a long-term vendor with expertise in digital pathology so that you can be confident that your product line will be updated, your investment will be supported, and the products are priced right for your budget.