



QUARTZ LIMS WHITE PAPER

Review Without the Detours

Reducing Context Switching in Image-Intensive Review Work

For laboratory managers and operations leaders in failure analysis and materials characterization labs

Executive Summary

In an image-intensive laboratory, the deliverable is largely visual, and a great deal of skilled time is spent reviewing images: confirming that a job's images are complete and correct, comparing an image against its siblings, and acting on what the review finds. This work is valuable and unavoidable, but the way review tools are often built makes it slower than it needs to be, forcing the reviewer to jump between pages, lose their place, and navigate away to take simple actions.

This paper makes the case for an in-context image review experience: a direct path from a job or sample to the right image, the ability to move among related images without leaving the review screen, and the relevant actions available where the reviewer already is. It explains why context switching is a hidden tax on expert time, and how reducing it improves both speed and quality. It closes with how Quartz LIMS implements this.

The Hidden Tax of Context Switching

Every time a reviewer has to leave what they are doing to find something, the cost is more than the seconds of navigation. Switching context breaks concentration, forces the reviewer to rebuild their mental place when they return, and introduces the chance of acting on the wrong record. In a review task performed hundreds of times a day, these small interruptions compound into a meaningful drain on the lab's most expensive resource, which is the attention of its skilled staff.

The friction usually takes a few familiar forms. Finding the first relevant image of a job means hunting through a list. Comparing an image to its siblings means navigating away and losing the active item. Taking an action on the image, such as releasing it, means going elsewhere and then finding the way back. None of these is large alone, but together they make review feel like administration rather than analysis.

A Direct Path to the Right Image

The first improvement is to remove the hunt. From a job or sample in a work queue, the reviewer should be able to reach the most relevant image, typically the first data image associated with that work, in a single action, and have it open without disturbing the queue they are working through. A direct link from the row to the image collapses what was a multi-step search into one click and keeps the reviewer's place in the queue intact so they can move steadily through their work.

Seeing an Image Among Its Siblings

An image rarely means much in isolation. A reviewer needs to see it in the company of the other images and documents related to the same job or sample, both to judge completeness and to compare. Keeping the active image visible within its set of related documents, marked clearly as the current item but shown in its natural place among the others, lets the reviewer evaluate it in context without navigating away. The comparison the review depends on happens on one screen rather than across several.

Acting Where You Already Are

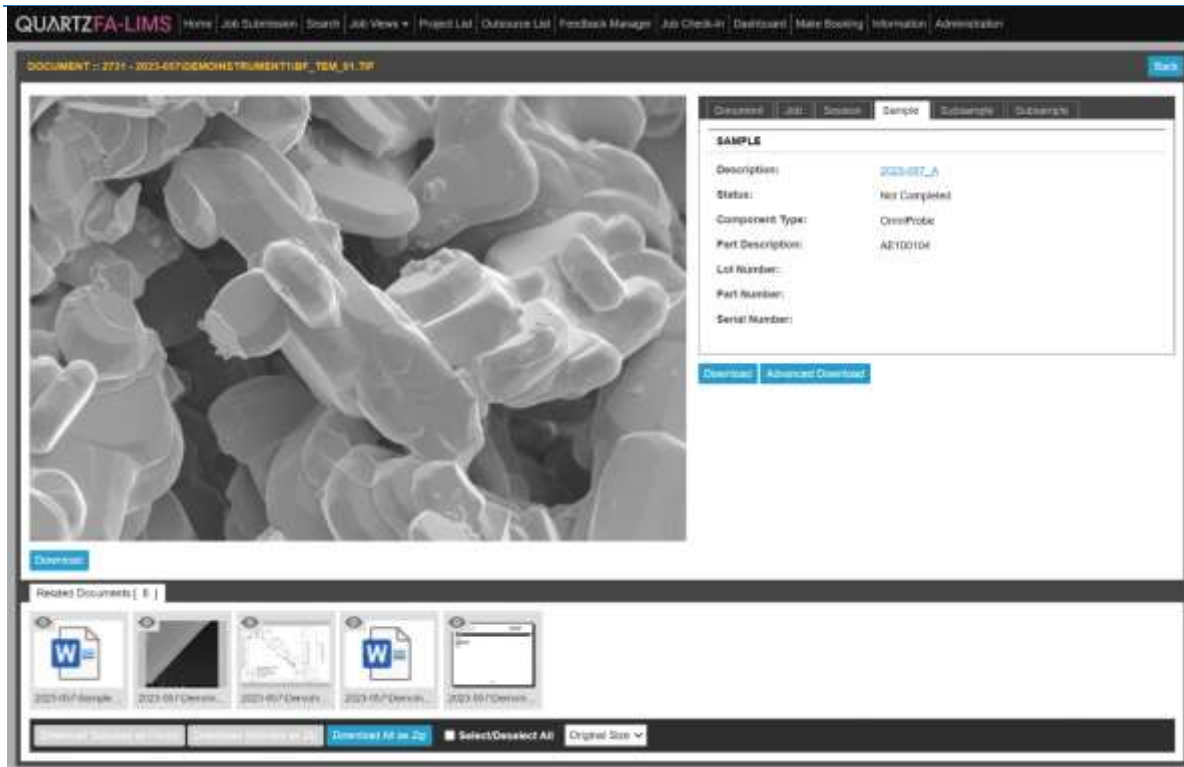
The third improvement is to bring the relevant actions to the reviewer rather than sending the reviewer to the actions. When the entity actions that a review naturally leads to, such as releasing an image, are available directly on the review screen, the reviewer can act on what they have found without breaking flow. The traversal among the parent job's or sample's images, and the actions taken on them, all happen in one place. Review becomes a continuous activity rather than a sequence of page loads.

The cumulative effect is a faster reviewer who makes fewer mistakes. Reducing the steps between seeing and acting is a direct contribution to turnaround time, and because it removes the small frustrations that cause slips, it supports quality as well. Productivity tools of this kind matter precisely because review is repeated so often that small per-task savings dominate.

What Review Cannot Catch

Streamlining review must not become a way to encourage rushing. The goal is to remove mechanical friction, the hunting and the page-switching, not to compress the judgment that review exists to apply. A tool that makes it effortless to click through and release images can, if used carelessly, turn careful review into a formality. The efficiency is meant to give the reviewer more attention for the analysis, not less reason to perform it.

It is also worth keeping the convenience in proportion. In-context review is a genuine improvement to a high-frequency task, but it is a refinement of an existing workflow rather than a foundational capability in its own right. Its value is real and immediate, and it should be understood for what it is: a way to spend expert attention on judgment instead of navigation.



How Quartz LIMS Implements This

Quartz LIMS provides an in-context image review flow built around the image details and work-queue pages. A link from a job or sample row opens the first data image for that work in a new tab while leaving the queue intact, the active image is shown among its related documents and clearly marked as current, and the reviewer can traverse the images of the parent job or sample without leaving the page. The entity actions and reviewer needs are exposed where the review happens. Because Quartz LIMS treats images as first-class laboratory data, this review experience is part of the platform rather than an add-on.

Configured to the lab's own review practices, the experience reflects how a given lab actually examines its images. The result is that skilled reviewers spend their time on analysis rather than navigation, which is where their time is worth the most.

To see how in-context image review would map to your lab, learn more at quartzimaging.com or request a walkthrough with the Quartz team.

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