By Roman Krayovskyy

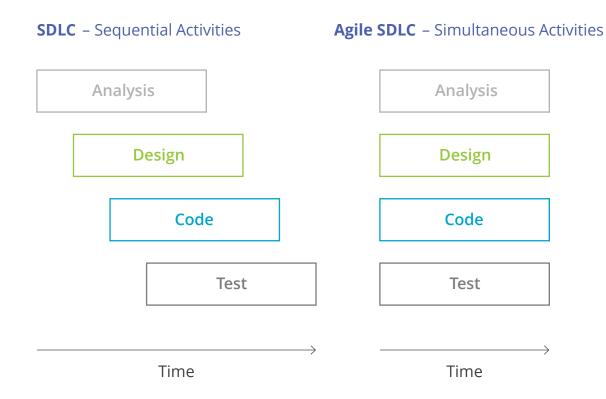
soft**serve**

Waterfall methodology and manual testing are swiftly becoming obsolete in today's fast-evolving technology landscape. In a **recent survey**, 67% of organizations classified themselves as either "pure agile" or "leaning towards agile." **And in another**, 98% of respondents said that their organization has realized success from agile projects.

In this white paper, we'll explore why and how to redesign a legacy software development lifecycle (SDLC) to go from waterfall to agile, and transitioning to test automation to fit this model.

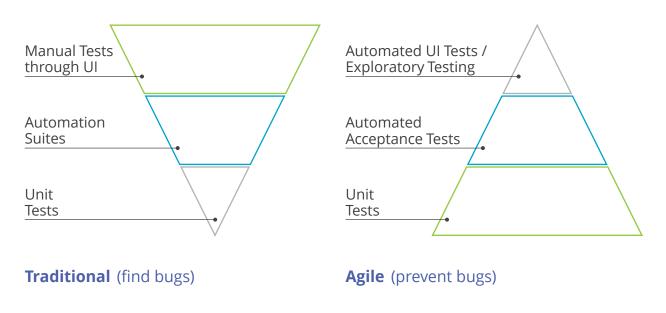
What Does "Going Agile" Mean?

Going agile is great for projects that have tight deadlines. In theory, agile software development means implementing shorter iterations and more frequent delivery. In practice, this means that there are no roadmaps or requirements; the project begins with a lower quality product that goes through multiple, rapid iterations until it reaches its final stage.



On the front end, the agile method allows for changing priorities as they appear, and is perfect for projects that require a fast turnaround. At SoftServe, we advise and consult on the best practices for each particular project, and use metrics and data to transform the process.

On the back end, it's important to have the ability to adjust and react quickly. To accomplish this type of speed requires high team morale and a collaborative attitude. A conflict with any technical product management group can usually be resolved by hiring a technical product manager, who can be brought on-site to bridge any gaps between teams. Without the cooperation of the entire team, communication becomes impossible and the project will fall apart. We will revisit this idea again later.



Testing and Project Management: Agile vs. Traditional

Transitioning to an agile methodology also requires rethinking your testing processes.

Traditionally, testing was done manually and sequentially, which can be fine for smaller projects but disastrous for larger ones. Manually testing for bugs and defects is time-consuming and tedious, and for larger projects that require faster turnover rates, this creates a lot of problems with time overhead. This traditional model is also outdated in that its main purpose is to find problems within the system, making it a reactive methodology instead of a proactive one.

In the agile SDLC, everything is set up to move much faster and more proactively. Say you have two weeks to go live on something, with one or two days for testing. The agile methodology works with these types of deadlines in mind, and can work even faster and more thoroughly by implementing test automation. Test automation allows for bigger volume-projects, and prevents bugs and defects instead of focusing on seeking them out.

Test Automation

Test automation is a second step that pairs with going agile — it's necessary in a fast-paced environment and shortens the turnaround cycle. Typical automation tests include unit testing, integration testing, GUI testing, and performance testing.

Agile project development and its multiple rounds of iterations come with a greater number of automated test cases. Rather than manually checking their quality, which can waste time and overhead, quick assessment through test automation allows the project to move swiftly. Test automation also sheds light on both process and implementation findings that are easy to fix and better perfect the test solution.

Here's a general overview for how to implement test automation.



Test Automation in an Agile SDLC Process

But starting test automation can lead to failure without the experience of seasoned professionals. It's important to engage experienced experts to achieve the best and most valuable automated quality testing.

Finding the Right Partner to Redesign SDLC

Success in going agile and implementing test automation is only as good as the team who can successfully put it into action. At SoftServe, our teams have helped with countless SDLC redesign projects, such as helping **Kyivstar redesign their SDLC** to improve their mobile services by up to 30%. Here are our secrets to success.

One of the most common reasons for failed outsourcing projects is insufficient attention given to setting and aligning expectations, understanding real needs behind formal requirements, and further governance of the project execution.

Setting the Right Goals

When it comes to redesigning an SDLC, the best approach starts with successful collaboration and clear project goals — especially when implementing the agile methodology. Things move more quickly, and so the right objectives need to be set with the full support of all parties. The best way to do this is to uncover potential project challenges from the very beginning to help you get the full set of benefits that come from outsourcing.

At SoftServe, our process focuses on analyzing team structure, development processes, business domains and tools, as well as identifying gaps, risks, and opportunities that need to be addressed in order to refine and optimize the entire collaboration process.

An effective workshop is conducted at a client's site and brings together key stakeholders who will be impacted by the outsourcing initiative.

Workshops take from 3 to 6 hours and consist of group discussions and individual follow-ups on things such as:

- Expectations and value management
- Sourcing opportunity analysis
- Engagement approach definition
- Current project, process, product management practices
- Knowledge management
- Measurement of quality, productivity and predictability

Monitoring Execution vs. Goals

Successful projects rely on a careful balance of monitoring execution against the goals that are set in place. Important metrics provide insight as to the velocity and quality of estimates, quality/issues open/reopen, cycle time, and other product quality assessment measurements.

At SoftServe, our Abiliton dashboard tracks projects and metrics, using them as a measuring tool to gauge project success. When switching to an agile environment, keeping track of project timelines and goals is imperative. Velocity and quality estimates allow you to uncover how much time your team needs to produce quality product value.

The best, most commonly used quality measurements include:

- The number of issues open
- The number of issues fixed
- And the number of issues re-opened

Finding the Right Technology Experts

Redesigning a legacy software development process requires expertise. In a fast-moving, agile development process, it's more important than ever to rely on those who have successfully accomplished these projects before.

At SoftServe, we use our market-leading methodology to seek out and maintain a team of technology experts. We have a unique approach to software development based on the effective team work of highly qualified professionals, the use of agile development methodology, and advanced technologies. These things improve the software development process.

Conclusion

The agile software development model is better equipped to handle the technological pace of our time. With this model comes faster project turnover rates, which makes test automation preferable over traditional manual testing. Contact SoftServe for a smooth transition from traditional and/or waterfall models, and activate experienced experts who are the best people for the job.

ABOUT US

SoftServe is a global digital authority and consulting company, operating at the cutting edge of technology. We reveal, transform, accelerate, and optimise the way large enterprises and software companies do business. With expertise across healthcare, retail, media, financial services, software, and more, we implement end-to-end solutions to deliver the innovation, quality, and speed that our clients' users expect.

SoftServe delivers open innovation – from generating compelling new ideas, to developing and implementing transformational products and services. Our work and client experience is built on a foundation of empathetic, human-focused experience design that ensures continuity from concept to release.

Ultimately, we empower businesses to re-identify their differentiation, accelerate market position, and vigorously compete in today's digital, global economy.

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