

# TestTrack Helps Fitness First Align Development and Testing with an Agile Approach

Becoming Agile in response to the needs of the organization is easier said than done. With the right plan and software tools to support it, software project teams can adopt enough Agile practices to better respond to business needs while retaining familiar and proven practices. That's the case with the Agile project teams working for Fitness First.

## Highlights

### Industry

Fitness

### Challenge

To quickly deliver high quality software to the business.

### Solution

TestTrack

### Benefits

- Greater speed and agility for development teams
- Rapid test case development through automatic generation of cases from user stories or tasks
- Easy management of test executions and tracking of results
- Improved data sharing and visibility
- Full traceability between user stories and downstream artifacts

Becoming Agile in response to the needs of the organization is easier said than done. With the right plan and software tools to support it, software project teams can adopt enough Agile practices to better respond to business needs while retaining familiar and proven practices. That's the case with the Agile project teams working for Fitness First.

Fitness First is the largest privately owned health club group in the world, with over 540 Fitness First clubs worldwide and over 1.4 million members in 20 countries. While at first glance it may be difficult to see the relationship between pumping iron and building state-of-the-art software, Fitness First has an active set of software project teams that provide essential support to the company's mission and operations. It is safe to say that applications provide Fitness First with a competitive advantage over other health and fitness facilities in its largely European market.

*"Whatever the size of the team and nature of the project, the teams leverage automation using Seapine solutions to achieve speed and agility."*

**Kevin Moore**

Senior Application Developer, Fitness First

Much of the development effort centers on the Fitness First web site, a comprehensive portal that provides information about Fitness First products and services, member services (including online enrollment), and a web store for online purchases. The web site, and its supporting web applications, enables members and the public to easily find a club, identify hours, services, and classes, and purchase health and exercise accessories.

The web site and its supporting applications are critical components of the company business strategy. Fitness First recruits new members heavily from the web. In addition, the company uses the web site to post special offers and to sell fitness-related products.

These applications provide new business opportunities for Fitness First by enabling them to test offerings in different markets, quickly provide discounts and other deals in response to demand, and publicize new classes or other products that may be popular at a given time of year.

This portal, along with back-end services that support products and services, keep the Fitness First software development teams busy and engaged. The team must be able to rapidly respond when business determines that new features or capabilities are needed, and looked to Agile methodologies to supported rapid turnaround of new features. They chose Scrum, which is one of the most popular Agile approaches.

Agile web application development is an important part of the mission of the Fitness First development teams. Fitness First primarily uses Microsoft development tools, including Visual Studio and C#, for the majority of projects. The teams also make heavy use of Seapine Software's TestTrack Pro, TestTrack TCM, and TestTrack RM to manage development and test artifacts, track requirements, user stories, and test cases, and manage defects.

"The Fitness First development group currently works in two teams, each consisting of two developers, four testers, and a business analyst," explained Kevin Moore, senior application developer for Fitness First and the Scrum Master for the development group. "The exact size and makeup of the teams may vary, depending on the features being implemented. But, whatever the size of the team and nature of the project, the teams leverage automation using Seapine solutions to achieve speed and agility."

Specifically, the project teams use TestTrack Pro for all defect tracking, user story, and item tracking, and have started using the Agile reporting toolset for burn down and burn up charts that come standard with TestTrack. In addition, the teams use TestTrack TCM to track their test cases, as well as TestTrack RM and TestTrack Pro to track defects, work items, and user stories throughout an Agile sprint.

### **Adopting an Agile Process**

Fitness First uses a Scrum process, and has committed to regular two week sprints, at the end of which they deliver working code with new features. Applications typically require multiple sprints to implement all the defined features.

User stories are managed in TestTrack, which is configured to support Scrum. The user stories are prioritized and managed as a backlog. TestTrack provides the ability to break down user stories into specific tasks, which are linked back to the stories for better traceability and reporting after the sprint. Fitness First uses TestTrack to support an ongoing, iterative planning, development, and testing process.

"The project process starts with the design team," Moore continued. "During any sprint, the design team requests an elicitation meeting with the project team for the upcoming sprint. In these meetings, the design team gathers information from testers and developers before committing any story to the backlog."

The meeting is usually attended by at least one developer, one tester, and the product owner, in addition to the software designers. At the end, development and testing both provide a high-level estimate of the effort required for each story. This estimate, which includes assumptions about the types of features needed to support a story, allows the product owner to go back to the business with any questions.

Pre-sprint planning takes place on the first day of the sprint, with the teams dedicating half a day to planning. The teams use the planning session to prioritize the stories and to get final commitment from the team before the sprint starts.

Taking the user story backlog from TestTrack, this time is spent with traditional Agile stationary, including Post-it® notes, index cards, and Planning Poker® cards, to get a picture of the sprint. After the stories are committed to and prioritized, they are broken down into smaller pieces of deliverable work. Both developers and testers are involved at this stage, and hourly estimates are placed on each of the tasks.

Seapine's TestTrack comes into play again once the planning has been completed. Each team member will pick a story to break down into deliverable work. The stories have already been added to TestTrack, and it is up to the team member to add the tasks to the story with estimated hours, and to provide a short description of the task. At the end of the planning day, the team estimates the effort for every story, so it has a clean burn down chart for the start of the sprint.

The team tests against the user stories with test cases managed in TestTrack. Tests are developed as early as possible and first run when the associated feature is ready. This validates the feature and, if necessary, gives the team the opportunity to address any defects prior to the end of the sprint. TestTrack supports rapid test case development

through automatic generation of cases from user stories or tasks, and easy management of test executions and tracking of results. These characteristics make it possible to more completely test new features as they become available in the sprint.

After the sprint has been defined and scoped, all defects and tasks to be completed are managed in TestTrack. The team prioritizes tasks and defects in discussions with the product owner, and may defer lower-priority work to future sprints. Each team member will update the hours worked against the work item at the end of each day. After the item has been completed, it is closed. Once all the tasks against the story are complete, the story can be moved into a Done status and the product owner will verify that the feature is complete. The team traces artifacts from user stories to defects, so once a feature is validated and any related defects fixed, the story can be closed in TestTrack.

At the end of the sprint, the team conducts a demo of the new features in the application for the entire team, plus management and customer representatives. The demo provides customer validation of the features developed during the current sprint. It also gives the team a chance to solicit feedback from stakeholders, both on the features and the overall direction of the product. After all participants have approved the demo, the new version is rolled out onto the web site. This process has proven to be a successful way of concluding sprints, and demonstrating a preview of features allows the business to actually see what they asked for before the features are delivered.

"The tester has a very important part to play throughout this process," Moore said. "The project teams rely on the tester in the elicitation meetings and the planning meetings to give clear insight into what is involved with testing, so that there won't be any surprises when tests are run. All the sprint estimates include developer and tester time, so that testing doesn't get shortchanged at the end of a sprint. The tester makes sure the team can deliver what was promised, to a fully tested and shippable standard."

Every tester has the same knowledge of the system, and can move between different areas of the system. That ability, coupled with the insight into the story at the elicitation and planning sessions, gives the teams an enormous advantage because everyone knows what everyone else is doing. The project teams also have a wealth of automated testing processes, which work well with the continuous integration methods used.

TestTrack helps the tester significantly with those automated processes. They include test case generation and management with TestTrack, along with automated task management and defect tracking, and full traceability between user stories and downstream artifacts. Given that each team typically includes only one tester, automation is essential to ensuring new features have been adequately tested, and that the Doneness criteria is met prior to a story's release at the end of a sprint.

### **Aligning People and Tools for a Higher Quality Result**

The main objective that Fitness First has achieved in adopting Agile is better aligning development and testing to work toward a common goal of delivering high quality features to users quickly. Using Scrum and Agile enables the teams to commit to and deliver fully tested features at the end of every sprint. The story estimations include developer and testing time, and no commitment is made to any story unless the whole team understands the story and what tasks are necessary to complete that story. The teams also have a strong definition of when a feature is Done, requiring that a fixed set of criteria, including unit tests, automated functional tests, and regression tests, has been met.

This approach to supporting the business couldn't have been accomplished without a strong set of application lifecycle management tools for documenting stories, tasks, tests, defects, and results. Seapine's solution was a natural fit to manage the Agile methodology, while also collecting all development assets in a single place for all team members. In addition, TestTrack made it possible to set the criteria for shipping and determining what had to be accomplished to meet the criteria.

The ability to easily automate made it possible to manage relatively complex user stories, tasks, and tests with a very small team, while keeping sprints down to a two-week window. While it may seem that planning, developing, and testing new application features within two weeks is a challenge to achieve, Seapine's automated lifecycle management solutions have made it possible for Fitness First.