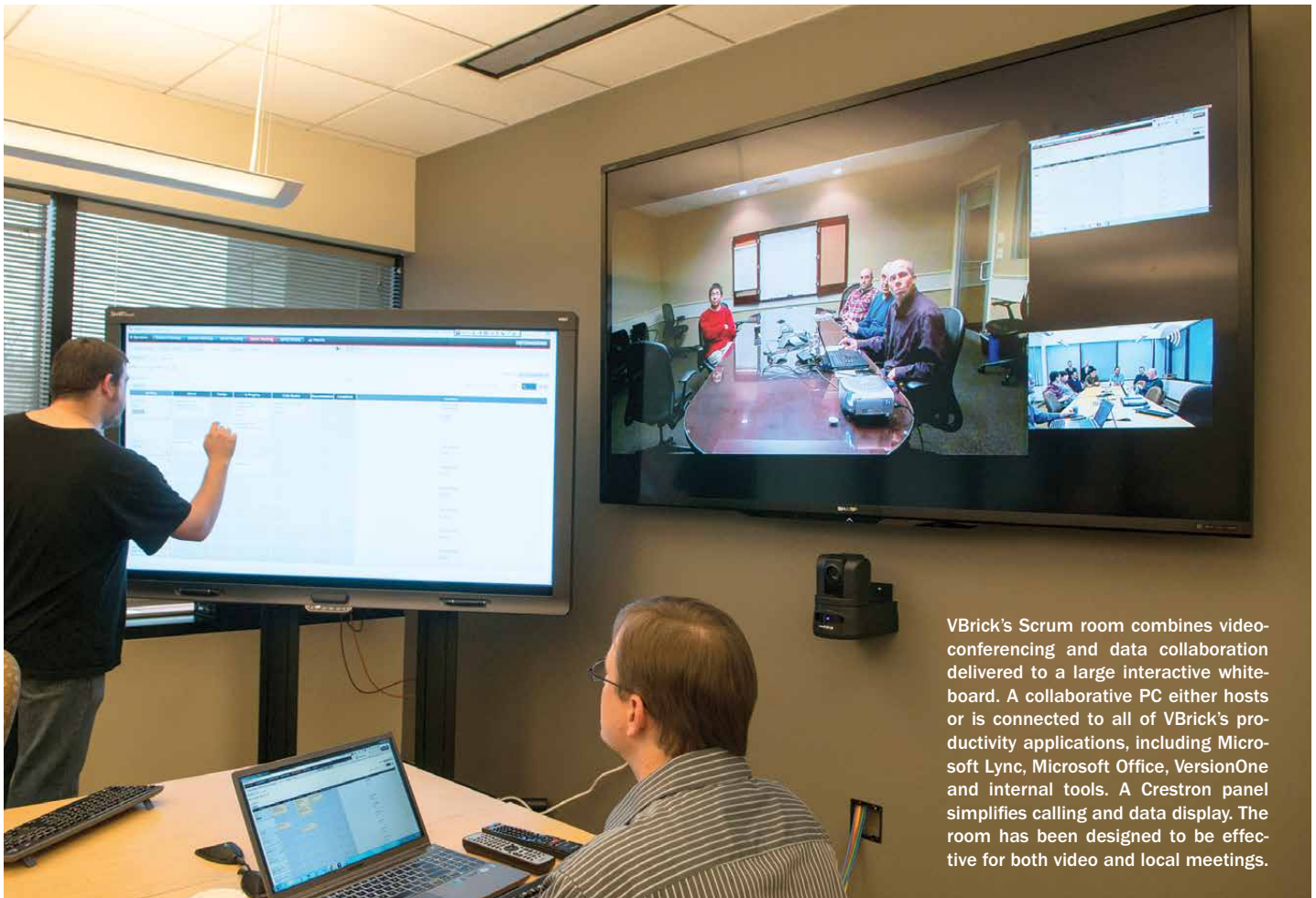# Visual Collaboration for Agile Software Development and Scrum

BY **STEVE WILSON**

VBrick's Scrum room combines video-conferencing and data collaboration delivered to a large interactive whiteboard. A collaborative PC either hosts or is connected to all of VBrick's productivity applications, including Microsoft Lync, Microsoft Office, VersionOne and internal tools. A Crestron panel simplifies calling and data display. The room has been designed to be effective for both video and local meetings.

THE PROBLEM: SCRUM DISPERSAL

What's a ScrumMaster to do? When media management and distribution provider VBrick Systems opened a second development office in January, it needed a way to continue holding its daily Scrum sessions, Scrum of Scrums, and Release Planning Sessions—the key components of the Agile software development methodology it relies on for work organization. The 15-minute Scrum at the start of every morning gets the company's developers on track and covers the time they report their progress on projects to the ScrumMaster, who tracks the project workflow on a Scrum "Big Visible Chart" and makes changes to identify blockages. This process literally gives everyone a picture of what they need to do for the day.

"The Scrum idea seems simple, but it's a hard discipline," says Bryan Watts, one of VBrick's ScrumMasters. "People want to say 'Here's what I did yesterday and here's why,' but all the ScrumMaster needs to hear is what you're doing today and if you're blocked or not—to keep it short, sweet and on track."

With the office expansion, these invaluable Scrum sessions had the potential to become a logistical nightmare. How to gather the developers in Connecticut and the new office in Herndon, Virginia (as well as employees working from home) for individual progress updates, sprint planning sessions and reviews? How to get everyone's eyeballs on the same Big Visible Chart and its ever-moving Post-It Notes? How to gauge body language over conference calls? How to keep on giving VBrick's customers the quality of service they'd come to expect?

"With the expansion we suddenly had developers all over the

place—in Connecticut, Virginia and at home," says Henry Zektser, VBrick's chief software architect. "We had to get everyone on the same page, literally and figuratively. We needed to find a way that they'd be able to see and interact with each other as if they were all in the same room. Ultimately, we had to find a seamless solution that would bring everyone together so that they all had a shared, solid understanding of what was going on."

THE CONSULTATION: SCRUM MEETS HUMAN PRODUCTIVITY LAB

The project came to fruition through serendipity. Over lunch with VBrick's CEO, HPL President Howard Lichtman discussed a recent project designing an Agile-Scrum solution for a 2,000-person telecommunications company. Lichtman recounts the CEO's reaction: "He said, 'that's funny. We just opened a new office in Virginia, we just hired a new CTO and chief software architect working out of that office that will be managing teams in Connecticut and remotely, and we just put our developers through Agile-Scrum training.'" They discussed how VBrick already had in place some of the necessary components: LifeSize videoconferencing endpoints, Microsoft Lync, and VBrick's own Distributed Media Engine, a platform designed to record, store, archive, and stream videoconferencing sessions, among other applications. The challenge was tying it all together into a system that would make it easy to use and optimize the less-than-ideal conference room space. And then there were the small but essential touches needed to make the company's visual collaboration as effective as possible—camera angles, lighting, control system, and user interface; and all of the various elements that make visual collaboration run more smoothly.

THE NEXT STEP: BEYOND THE SCRUM

In the first few months of operation, the system required a few minutes of backend work to make sure everyone could log in successfully and the HPL made changes to the Crestron menu that improved the ease-of-use. But now that the companies have streamlined the sign-on process into a one-button experience, the company plans to use the new system for more than Scrum. VBrick's Vice

AGILE SOFTWARE DEVELOPMENT & SCRUM: A Primer

Agile software development, for the uninitiated, is an iterative and incremental software development methodology with a few simple key precepts: working software is delivered frequently with continuous feedback from customers and stakeholders, while the software development cycle is time-boxed and locked-down into "sprints" where no changes are permitted until the current planned functionality is finished.

Agile teams are small (the average size is seven members plus or minus two) and cross-functional, including people dedicated to planning, designing, coding, and testing. Team members ideally work together in a collaborative workspace where they frequently brain storm, problem solve and participate in a short, fifteen minute daily meeting called a Scrum. During Scrums, team members report on what they did yesterday, what they're doing today and what roadblocks stand in their way. The ScrumMaster manages the process, keeping the team focused on the current sprint goal and deliverables with help from an all-encompassing "Big Visible Chart" similar to a Kanban board.
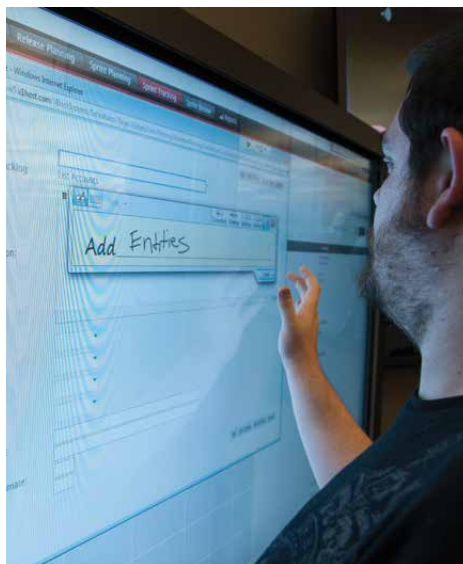
VBrick Software Architect and ScrumMaster Bryan Watts makes a change to his team's Task Board in VersionOne in Herndon where it is mirrored on a large-format display in Connecticut. The set-up also reaches remote team members over web conferencing, and the meeting is recorded for those who can't make it.

President of Product Rick Rumbarger says he plans to roll out the room for other areas of the company in coming months, including executive-level meetings, project management, and IT. "The HPL's design supercharged our Scrum sessions but also provided tools to improve every meeting held in that room," he says. "Now we plan to use it for everything."

THE SOLUTION IN ACTION: SCRUMMING ALONG

Once in place, the Agile-Scrum room worked better than the company had hoped. Now, at the daily Scrum, sprint planning sessions, and other development-related meetings, the ScrumMaster has the power to share the company's VersionOne Agile-Scrum project management tools to large-format screens at each location or over web conference to the laptops of remote participants. The participants can work effectively with data, whiteboarding interactively with remote sites, annotating over diagrams and saving those annotations and whiteboard drawings to files that can be worked on at later times or emailed to all participants directly from the room.

"Being able to have that whiteboard up in both rooms during the Scrum makes a huge difference," says Watts. "The Scrum Master can be touching tiles and say 'OK we'll throw this down until later, but we'll bump this up instead.' I can make changes in front of the group and remote participants and capture their feedback in VersionOne as the discussions are happening."

The SMARTBoard's ability to share other images has also proven a boon for the team. "The solution has made the process of explaining and working through problems much more efficient. For example, not long ago we were using a particular diagram that was very dense and would have been a pain to explain to everyone over the phone. But with this solution we were able to call it up on the whiteboard and work it through it in five minutes," says Zektser. "This is significant, because not only does it save precious time, it also makes comprehending the process so much easier for everyone involved. It makes meetings go faster, but it also saves a lot of effort and confusion on the backend, because there's no
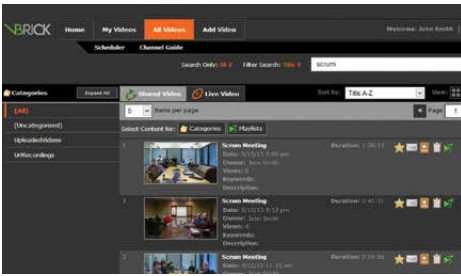
VBrick's DME makes it easy to record the Daily Scrum, Scrum of Scrums, and Sprint Planning Sessions for team members that are absent or working on the other side of the planet. Sessions are securely recorded and stored to each team's private "YouTube channel" using VBrick's own DME Videoconferencing Streaming Gateway and its Mystro Video Management Platform.

need to try and pass along and explain information. It's all there for everyone to see, no matter where they are.

Zektser adds that the room's versatility for collaborative work or simple local meetings came as a pleasant surprise. The SMARTBoard doubles as a large-format display the team can use for PowerPoint, web browsing and sharing Scrum status

WHAT'S IN THE RACK?
VBrick's Rick Rumbarger and Henry Zektser

- Biamp Tesira Server
- Crestron Digital Media Receiver and Room Controller
- Crestron Digital Media Switcher with RPS
- Dell R5500 Workstation running Smart Technologies Bridgit® conferencing software
- LifeSize Team 220 Codec
- SMARTBoard 8000 Series Interactive Flat Panel
- Vaddio A/V Bridge
- VBrick Distributed Media Engine
- VBrick VEMS Mystro™ Server

boards when not connected to anyone. The SMARTBoard also serves as a large-format display for a collaborative PC loaded with VBrick's productivity applications (Microsoft Office, VersionOne, Adobe, browsers, etc.) and Microsoft Lync.

In the first few months of operation, the system required a few minutes of backend work to make sure everyone could log in successfully and the HPL made changes to the Crestron menu that improved the ease-of-use. But now that the companies have streamlined the sign-on process into a one-button experience, the company plans to use the new system for more than Scrum. VBrick's Vice President of Product Rick Rumbarger says he plans to roll out the room for other areas of the company in coming months, including executive-level meetings, project management, and IT. "The HPL's design supercharged our Scrum sessions but also provided tools to improve every meeting held in that room," he says. "Now we plan to use it for everything." TPO
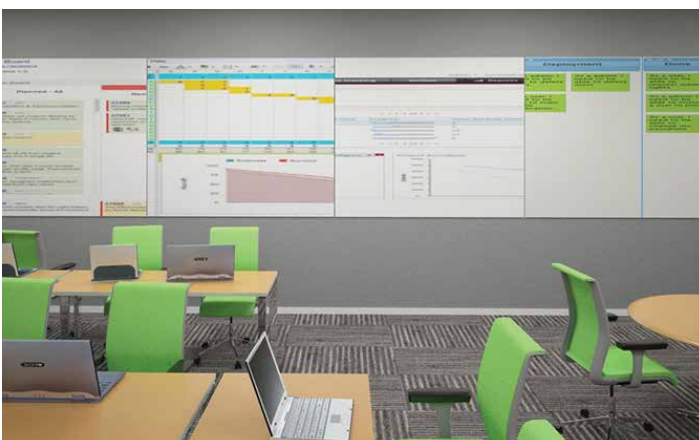
A Human Productivity Lab design for a software and hardware development "War Room" with the ability to manage more than a dozen development projects around the world. The room is designed to display multiple individual team charts simultaneously and communicate effectively with Agile-Scrum team rooms around the world. The room is designed to simultaneously seat four development teams locally and one virtually during sprint planning sessions.