BLACKBOARD BUILDING BLOCKS AND THE BLACKBOARD ACADEMIC SUITE: A STRONG FOUNDATION

Blackboard Building Blocks® is Blackboard’s open architecture initiative. Launched in 2001, more academic institutions and independent software vendors use Blackboard Building Blocks to develop, contribute, and share innovation than with any other e-learning platform.

Open, collaborative development is the foundation of the Blackboard Building Blocks program. Blackboard publicly documents Application Programming Interfaces (APIs) for the Blackboard Academic Suite™, and provides a series of free or inexpensive resources to assure that any developer has the documentation, tools, and knowledge necessary to innovate around Blackboard technology.

Members of the BbDN have access to:
- Active online developer forums populated with developers from academic institutions and commercial vendors, and monitored by Blackboard’s own engineers
- A searchable knowledge base
- Sample, re-usable code snippets
- Opportunities to participate in Early Release programs for Blackboard software and new Blackboard Building Blocks APIs
- Invitations to members-only activities and co-marketing opportunities, as well as discounts to select Blackboard events
- A Developer Edition license to the full Blackboard Academic Suite

Much of the output of the developer community is shared through the Blackboard Building Blocks Catalog, an online directory of information about individual Building Block applications made available by academic institutions and independent software vendors to the Blackboard community. To date, this robust community has created more than 100 extensions to the Blackboard platform that are listed in the Blackboard Building Blocks Catalog -- plus many more that have been developed for local use at academic institutions.

Academic institutions and independent software vendors use the Blackboard Building Blocks technology to create sharable, re-purposable web applications that can be deployed on the Blackboard Academic Suite platform. These applications can:
- Extend the Blackboard Academic Suite with new functionality
- Provide customizations to meet discipline-specific or pedagogical needs
- Aid system administration
- Automate procedures or repetitive tasks
- Act as a bridge application between the Blackboard Academic Suite and external systems or applications.

In a matter of minutes system administrators can install a Building Block application that adds new functionality or integrate other products.

AN ACTIVE COMMUNITY

Community is the backbone of the Blackboard Building Blocks program. To support innovation, Blackboard established the Blackboard Developer Network (BbDN). Over 400 institutions and vendors have joined the Blackboard Developer Network, representing well over a thousand developers working with the Blackboard Building Blocks technology.
A TECHNOLOGY FOR INNOVATION

Blackboard has made sure that the Blackboard Building Blocks technology is available to as many developers as possible. The Blackboard Building Blocks Software Development Kit (SDK) is a free download from the Blackboard Building Blocks website (http://buildingblocks.blackboard.com). The Blackboard Building Blocks SDK contains documentation for the Java APIs that enable integration with the Blackboard Academic Suite, a Developer’s Guide, sample code, and more. In addition to the Java API documentation, there is a separate SDK for the Microsoft .NET framework. The .NET APIs duplicate all of the functionality of the Java APIs, provide an additional set of web services interfaces, and open up development to developers with skills in programming languages other than Java.

This technology is based on standard web application development architectures that will be familiar to many programmers, enabling developers to get up to speed quickly on the Blackboard platform. The Blackboard application framework exposes the elements of the Blackboard Academic Suite’s user interface, allowing developers to make their Building Block applications share a common look and feel with Blackboard, if they desire, or maintain their own branding as appropriate.

All Building Block applications are managed through a rigid security framework that requires the Building Block application to declare which APIs it uses and requires the System Administrator to accept that declaration. To facilitate ease of use, Building Block applications are deployed as packaged files and installation of these applications is managed through the System Administrator Panel user interface. The packaged Building Block application can be downloaded from the Blackboard Building Blocks Catalog, installed on an institution’s Blackboard server, and enabled system-wide with a few clicks.

A GROWING COMMUNITY

The Blackboard Building Blocks program began in 2001 with only a handful of cutting-edge developers participating. Today, the program has grown into a thriving community with hundreds of institutions and vendors innovating around the entire Blackboard Academic Suite. Blackboard is committed to continuing to develop, support, and extend the Blackboard Building Blocks program. We are convinced that an open, stable and widely-adopted framework for innovation with an active, robust developer community is a roadmap to ever-greater client success.

TO LEARN MORE, VISIT THE BLACKBOARD BUILDING BLOCKS WEBSITE AT HTTP://BUILDINGBLOCKS.BLACKBOARD.COM