Leveraging IBM JazzHub for Development & Testing in the Cloud

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Agenda

- **What** is JazzHub?
- **Why** Develop in the cloud?
- **How** to leverage JazzHub for Dev & Test in the Cloud?
- A Quick Case Study
JazzHub: IBM Rational’s Premier SaaS Offering

What is JazzHub?

• JazzHub is a fully hosted software development tool in the cloud, complete with task tracking, agile planning, and integrated source control

Key capabilities and value

• JazzHub allows users to develop and collaborate on software projects in the cloud. Projects can be public– and exposed to the rest of the web– or private, and only seen by their team

• Easy to use and extremely quick time to value
  • No downloads required, users can register and create their first project in under a minute

• Flexible code management options: use JazzHub’s browser based IDE, code locally with an Eclipse client, or integrate with an existing GitHub project

• IBM’s premiere hosted environment for Cloud application development, with built-in DevOps capabilities
# JazzHub: A Self Evident, Self-Serve Software as a Service

## Value

### Simplicity and Ease of Use.
- Get Started on real work in less than a minute
- Start an Agile Project in less than a minute
- Create as many as you like
- Manage all your Projects in one view. Easily Invite Members to join your projects
- Search Public Projects to find interesting info that you can reuse
- Project Details, Read Me, Links – Better Searchability/Visibility (Community Improvements), Seamless Code Re-use – Tag, Discover, Share

### Enterprise Class Collaborative Development Capabilities that increase productivity for individuals, team and team of teams.
- Agile Planning & Tracking and Industry Leading Change Management
- Source Code Control – Jazz SCM
- ORION based IDE on the WEB
- Full Eclipse Client Support
- GitHub Integration
- A First Class Project Dashboard that provides a single version of the truth

### Personal Task Management (find a better value)
- Manage all your Projects in one view. Easily Invite Members to join your projects. Control your Project

### Online Community Support – Engineering Direct Access
- Via Online Help, Forums – Our engineers monitor and respond to issues directly

### Team Organization
- (Post October Capability)

### High Reliability & Trust
- SoftLayer based Infrastructure

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**ERUC2013**
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Systems of Engagement

**Terminology:**

- **Systems of Engagement:** new types of application development that harnesses mobile, social, cloud, and big data to deliver contextual, user-focused apps and smart products
- **Systems of Interaction:** applications that integrate back-end/SoR systems with SoE
- **Systems of Record:** traditional back-office business applications
A Shift under way - Global Developer Population 2013

2013 Global Developer Population:

18M+

8M
Developing mobile Apps

4M+
Developing within Cloud

12M+
in at least one developer program

14M
Spend time with Agile (practices)

Growth Estimates:
- Estimated Global Dev Population by 2017: 23M+
- Estimated Mobile/Cloud Dev: over 70% of all new dev

Targeted audience
Strong affinity with targeted audience

Source: Developer Population and Demographic Study, 2013 © Evans Data Corp, 2013
The New Development Reality

- **Consumerization of technology**: Developers making more decisions
- **Cloud & Mobile Revolution**: Changing the types of software that gets built
- **Systems of engagement**: Line of Business and marketing driving

New Development Reality
Systems of Engagement – A Typical Development Scenario

**Mobile Dev, Test & Deploy**
- Identify Mobile Platform to target (iOS, Android)
- Write Code (xCode, Eclipse, other)
- Use jQueryMobile (if targeting multiple devices)
- Test using Simulators
- Include BugSense to monitor quality
- (Optionally) use uTest Services for test coverage
- **Lean Start Up** Process
- Development Collaboration using GitHub, Atlassian, BaseCamp, Adobe / Balsamiq / MockingBird (wireframe)
- Deploy to Apple / Android Stores
- (optionally) Build/host a WebSite (HTML5) on Heroku to download Apps
- Dev collaboration using GitHub... pick any off the shelf issue management solution

**Cloud App Dev, Test & Deploy**
- Identify web-stack to use (eg: node.js for real-time applications like online games, collaboration tools, chats etc., mongo dB for storing/operating on unstructured data, Expressjs for UI)
- Use IDEs like codenvy, c9, orion
  - Desktop IDEs: Eclipse, Visual Studio
- Write code
- Use jQuery as needed
- Deploy to a PaaS (AWS, Google App Engine, Heroku, Azure) to Scale
- Use MemCache, NewRelic and other services as needed to manage memory, monitor performance etc.
- Use Google Chrome Dev tools (eg: node inspector) to debug
- **Lean Start up** Process
- Dev collaboration using GitHub... pick any issue mgt: Atlassian, Trello, omega…
Who is this New Developer? What do they need to develop applications in this new environment?

- **Who are they?**
  - Trust open source model to deliver high quality free software
  - Use tools like Heroku, GitHub, and AWS

- **What do they want? How do they work?**
  - Tool preference heavily influenced by tool popularity and what mentors use
  - Seek answers for technical problems online via search, forum interactions, communities, etc.
  - Value simple getting started, ease of use and core functions
  - Comfortable with cloud / SaaS model – may already be paying for multiple cloud offerings in personal life (Amazon storage, Spotify, Dropbox, etc.)
  - Prefer straightforward pricing
  - Instant gratification – greatly reduced development cycles

40% of developers are 30 or younger.

Average age worldwide is 39, North America avg. age is 49

Agile techniques are used by 11.2 million+

1 in 3 use cloud/virtualization

Source: Global Developer Populations and Demographics Report 2010 (Evans Data)
IBM’s Premier Solution for the new development reality

Resources tools and community to help developers build applications for mobile, cloud, big data

New DeveloperWorks Network:
- Expansion of developerWorks into a federation of interconnected web resources
  - Enable developers to “connect”, “learn”, and actually develop through the developerWorks site

BlueMix:
- PaaS technology stack and website that enables developers to rapidly build, deploy, and manage applications – preview coming soon

JazzHub:
- JazzHub is a fully hosted, cloud based CLM installation tailored to enable quicker startup and time to value
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JazzHub Cloud Deployment - Start simple and fast

- We take care of the cloud so you can take care of the code. With no servers to install, configure or maintain, you have more time (and money) for the fun stuff.
Collaborate seamlessly on public or private projects

- Inviting team members to a project is easy, all you need is an email address.
- No matter where you are in the world, what time zone… all you need is your web browser to access all that JazzHub has to offer.
- JazzHub “projects” are built for collaboration. Team members can chat, add comments, and subscribe each other to stay aware of what other project members are doing.
- With public and private projects, you can easily choose who sees your project and how you engage broader communities.
With powerful task tracking, planning, and SCM, JazzHub has everything you need to build great software

- Track and plan in-context. Plans and code are smartly linked, so things stay in sync with development team progress.
- Create stories, tasks, and defects to describe and track project work.
- With a built in process template for agile development, immediately start using agile planning tools for the product backlog, releases, and sprints.
- Choose how you code:
  - Easily edit any text file or script from within your browser. If your project contains JavaScript, HTML, CSS, Ruby or PHP code, the JazzHub editor is likely all you need to make changes.
  - Eclipse and .NET developers -- connect your projects to source code in Rational Team Concert client for Eclipse or Visual Studio.
# JazzHub Features and Capabilities

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value and explanation</th>
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<tbody>
<tr>
<td>Hosted on the cloud</td>
<td>Instant access, no need to worry about downloading software or managing upgrades—we take care of the cloud so you can take care of the code.</td>
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<tr>
<td>Collaborative, project-based software development</td>
<td>Built-in capabilities that make collaboration easier. Teammates can chat, add comments, and subscribe each other to stay aware of what other project members are doing.</td>
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<tr>
<td>Flexible coding and source code management</td>
<td>Use our built-in browser-based IDE or the Rational team concert client to connect to eclipse or visual studio.</td>
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<td>Enterprise-quality planning and tracking</td>
<td>Based on the enterprise-quality capabilities of Rational Team Concert, you can customize your timelines and tasks to</td>
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<tr>
<td>Agile process support</td>
<td>Choose our agile process template to help your team practice agile development.</td>
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<tr>
<td>GitHub integration</td>
<td>Already working on code in GitHub? Use our GitHub integration to manage your code in JazzHub</td>
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<tr>
<td>Harness community power</td>
<td>Search for projects that are of interest to you, and likewise tag your public project to make it easier for the broader community to find your project.</td>
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<tr>
<td>Organization and individual accounts</td>
<td>Use our individual account to work on personal projects and/or create a presence for your organization on JazzHub and use our tailored Organization account to see and manage all of your company’s projects in one place.</td>
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Register and create a project in minutes

- Just make a couple decisions first:
  - Do you want your project to be public or private?
  - Do you want to do agile software development?
  - Do you want to connect to existing GitHub repository?

- And you’re done!
Get started with a simple project, or use our Scrum template to practice agile development

- With a Scrum project, you get built-in features that support the planning and tracking of epics, stories, and retrospectives; and the creation of defects and impediments.
Got GitHub? Use our GitHub integration to track and plan with JazzHub using the code you’ve stored in your GitHub repository.

- With our GitHub integration you can track and plan with JazzHub using the code you’ve stored in your GitHub repository.
- You can even edit the code stored in your GitHub repository using the JazzHub web editor.
Public projects
Simply said, public projects are free – create as many as you like. Likewise, contribute to any project you’re invited to, at no cost. We may introduce practical limits, such as on storage, as part of future JazzHub price plans.

Private projects
Private projects are free in 2013. In 2014, we intend to charge for private projects.

Get free private projects through 2014 if you register at JazzHub by December 31, 2013

Register now
Start creating tasks and planning out work that needs to be done
Get coding! With our built-in browser based source code manager, you can get started immediately, or use an alternative downloadable client and link to our Jazz SCM.
Using Eclipse Client to Develop & Test with JazzHub

1. Explore a Project and go the Project’s Landing Page

   ![slrunzo | PSWhiteboard](https://jhimage.com)

   Try out this Worldlight-based whiteboard free in the Apple App Store: http://pswhiteboard.com Because design is integral to everything we do at PointSource, we need the ability to sketch our ideas and concepts while on the go or from anywhere, sitting in an airport, huddled around a shared desk, or over a cup of coffee. The PS Whiteboard app allows you to capture your ideas elegantly in a free solution without the intrusion of ads getting in your way. Import or capture a photo or document and sketch on top of that to mockup drawings or wireframes and designs. PS Whiteboard allows you to write in 6 different colors and 5 different marker sizes, and you can erase without removing the background image. After you have captured your ideas and simple collaborations, you can save and share them for continued collaboration. The PS Whiteboard app was created using IBM Worldlight.

2. Under the Code Section, follow set up instructions for Eclipse:

   **Eclipse user? Connect to this project locally using Rational Team Concert. Here’s how to get setup.**
   1. Download the Rational Team Concert Eclipse client.
   2. In your client, click File > Accept Team Invitation
   3. Paste the text below into the Accept Invitation text field:

   ```
   teamRepository=https://hub.jazz.net/com01
   userName=rajagopal
   projectName=Srinivasan Rajagopal
   projectName=slrunzo | PSWhiteboard
   ```

   All Set, Get Coding: Dev & Test with JazzHub
Leverage the power of public projects. With JazzHub, you can easily share the work you’re doing with a broader audience.
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Point Source uses JazzHub to develop & test solutions in the cloud.
Point Source: WHY Develop in the Cloud?

- **Speed of time to market critical in mobility**
  - Get projects running in hours, not weeks

- **IT budgets often overspent, or mobile strategy owned by non-IT org (CMO office for example)**
  - Direct cost savings over traditional local systems
  - Indirect cost savings to us and client through better project management, lifecycle support

- **Supporting the full development lifecycle often not a priority… until it is**
  - SaaS tools enable us to deliver higher quality, and better ongoing support environments

- **Consulting/services with clients requires collaboration and hand-offs**
  - Collaboration improves when technology is frictionless
  - Solve distributed connectivity issues
  - Runs efficiently multi-tenant for different businesses or business units
  - Onboarding and handing off solutions far more efficient
Point Source: Why we Love JazzHub

- Transparent development and planning
- Up and running in 5 minutes
- Immediate collaboration
- Enable example code; point customers to see value
- Simple on-ramp to get clients started with development tools

PointSource projects in JazzHub:
- PS Whiteboard
- Major retail B2C storefront
- Major insurance sales center B2B
- Internal development and design work
- PS.SDK

JazzHub partner for mobile development lifecycle
www.PSWhiteboard.com
PS Whiteboard

Capabilities:
- Capture your ideas elegantly in a free solution
- Import or capture a photo or document and sketch on top of that to mockup drawings or wireframes and designs
- Save and share for continued collaboration

Industry applications:
- Insurance claims adjusters may take photos of damage and take notes about the damage
- Doctors can make notes on x-rays
- Product engineers can quickly sketch on existing schematics
- Kids can even draw funny faces on their pets, or they can let their imagination go wild with freeform drawing

Worklight:
- Created to aid in our own creative processes by a small team of our talent using IBM Worklight
- Within 2 weeks from PoC we had a production-ready, cross device solution
- Built in Worklight using jQuery, Backbone, and Bootstrap. Apache Cordova was used to integrate with the native device camera and photo album
Software as a Service
JazzHub-Call to Action
Come, Build Great Software!

- Register at [https://hub.jazz.net/](https://hub.jazz.net/)
- Start creating **meaningful** projects to collaborate on personal or work projects. Add a picture to your project, create a detailed description, and collaborate with others.

Examples of projects on JazzHub:

- Invite friends, coworkers, and clients!
JazzHub
@JazzHub
#JazzHub is a place where you can collaborate with others to seamlessly plan, track, and develop software in the cloud.
Worldwide · hub.jazz.net

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