Working with Apache Tuscany
A Hands-On Workshop

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I have been hearing a lot about this open source project called Apache Tuscany. How can I learn more about it?

- Learn about the project
  - Project overview and subproject pages
  - Go to Tuscany website’s dashboard page that links to key resources for your learning.

- Subscribe to the mailing list and talk to the community
  - Ask questions. Any questions is welcomed

- Download distribution
  - Typically latest release is the best to start with

- Run getting started tutorial

- Run samples, demos
  - Use samples and demos to better understand how to use the project and learn details about it’s features
Project Overview: http://tuscany.apache.org

SCA
For service composition & management

SCA’s pluggable data Handling extension Allows it to work with Different types, Jaxb, Axiom, SDO.

Dashboard page Links to useful resources
How to ask questions as a user?

- First get registered on the mailing list by sending a subscribe email to user-subscribe@apache.tuscany.org
- You will get an email that you need to reply to. Simply reply with no text. This Activates your subscription
- Note: You can always unregister yourself .. User-unsubscribe@apache.tuscany.org
- Once registered, you will receive email related to user discussions
- You can also post your questions and respond to emails
How to ask questions as a developer?

- First get registered on the mailing list by sending a subscribe email to developer-subscribe@apache.tuscany.org
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Subscribing and using the mailing lists

- Different mailing list types
  - User – Used by users to ask questions or help each other
  - Development – Used by developers to discuss designs, releases, roadmaps. JIRA updates get routed to this mailing list
  - Committs – where code commits are sent to. A good way to see what is progressing in the project
  - Archives – hold a history for user and developer mailing list. Great place to search for finding answers for questions that may have already been asked.

- You can subscribe, unsubscribe or watch archive of these mailing lists. You cannot respond to emails from archive.

- Subscribing to Tuscany user list
  - `<list>-subscribe@<project>.apache.org`
  - `<e.g.>` user-subscribe@tuscany.apache.org

- Unsubscribing from Tuscany user list
  - `<list>-unsubscribe@<project>.apache.org`
  - `<e.g.>` user-unsubscribe@project.apache.org

- Browsing Tuscany Mailing Archives
  - [http://www.mail-archive.com/](http://www.mail-archive.com/)
  - [http://apache.markmail.org](http://apache.markmail.org)
  - [http://mail-archives.apache.org/mod_mbox/](http://mail-archives.apache.org/mod_mbox/)
How to ask questions on the project mailing list

- Feel VERY COMFORTABLE to ask ANY kind of questions to help you understand the project. **There is no bad or good questions.**

- Remember that the project is a community effort and most people working on the project are volunteers.

- The way you ask questions can play in how you get answers
  - **Use meaningful, specific subject headers**
    - Not helpful: HELP!
    - Better: Webservice Error when running App

  - **Be precise and informative about your problem**
    - Describe the symptoms of your problem or bug carefully and clearly.
    - Do the best you can to anticipate the questions someone could ask back, and answer them in advance in your request for help.

  - Email volume is not precision – Keep the email concise and to the point

  - **A good source: “how to ask questions the smart way” at**
SCA Java Documentation

How to develop applications

- **User Guide**
  - This introduces you to SCA concepts and describes the various features of the Apache Tuscany Java SCA runtime.
  - Getting Started with Tuscany using a Tuscany Distribution from the Command Line
  - Getting Started with Tuscany using a Tuscany Distribution In Eclipse
  - Getting Started with Tuscany using the Tuscany Eclipse plugin

- **Developer Guide**
  - If you would like to contribute to the project, this guide explains how to build Java SCA and how to contribute code back to the project.
  - Architecture Guide
  - Extension Development Guide
  - Data binding guide
  - Security aspect implementation guide
  - This guide shows the Tuscany developer how to write core and extension code that correctly employs the Java security features

How to help with Tuscany development and extend Tuscany it
I think Apache Tuscany is a great project to get involved with. I like the idea and the technology. How can I get involved?

**welcome to the project!** Apache Tuscany welcomes any kind of participation.

Check “Get involved” page. It explains some ways to get involved.

- Find what you are interested in after you learn about the overall project.
  - Check roadmap or JIRAs
- Some ideas:
  - Provide patch for JIRAs to get experienced
  - Contribute to design, architecture documents as you learn about the project
  - Contribute features that you are interested in
  - Contribute tests, scenarios, ...
- Check development guides. It usually has good hints for how to build, setup your environment, etc.
- If you need help, ask.
Get Involved Page

Apache Tuscany

A successful project requires many people to play many roles, for example write code, documentation, test, provide suggestions or feedback. These are all important.

Here are some suggestions for getting started and welcome to the project.

- Tuscany consists of several subprojects. Identify what areas you are interested in. Take a look at samples for that area.
- Subscribe to the mailing list. If you are interested to get involved at the user level, subscribe to user mailing list. If you are interested to get involved in the development of Tuscany, subscribe to the developer list. Remember that you can always unsubscribe later.
- Would you like to contribute new ideas? Start with the mailing list and share your thoughts.
- Answer questions posted to the mailing list.
- Identify JIRA in the area that you are interested in and provide patches.
- Contribute to the user or developer documentation or website. Create a Wiki page on the Tuscany Wiki, create a JIRA and attach the link.
- Identify known issues that you’d like to fix and provide a patch.
- Contribute to feature development. Just let the community know what you’d like to work on. It is as easy as that.
- If in doubt about where to start, send a note to the mailing list and mention your area of interest. Any questions is welcomed. We’d like you to be involved!
- Provide feedback: What is working well? What is missing? What can help you with your deployment. This helps us create software that addresses real pain points in SOA.

communication
Please note that a single mailing list is used for all the subprojects.
The Tuscany community also gets together on IRC. The IRC server is irc.freenode.net and the channel is Tuscany.
Internet Relay Chat (IRC) Help is a good source of information on understanding IRC chats.
The following are some IRC chat clients:
- mIRC http://www.mirc.com/
- Trillian http://www.realvnc.com/trillian/

Project Ideas
- Integrate Tuscany & Google gadgets
- Implement Data Services
- And much more
Reporting Problems

How do I create a JIRA?

- JIRA system is used to report and track issues and new feature requests.
- If first time user, create a login account: User id and password
  - You define your own user id and password
- If not a first time user, login to create a JIRA or to update a JIRA
- Each area of the project has a component name. For example, component core, component data binding, etc.
New Feature Requests

Do I use JIRA system for feature requests and enhancements? Yes

- JIRAs are used to track new feature enhancements.
  - Typically a discussion on the mailing list leads to a JIRA
  - What helps?
    - Use case scenario for why this is a useful feature
    - Samples/tests if you have any
    - Your code contribution can expedite getting the feature in
Reporting Problems or requesting features: Use JIRA system
Creating a JIRA

- Provide a one liner summary that describes the issue
- Select the area that was affected
- Select the version of the code that you are using
- Provide necessary environment information
- Provide detailed description and any stack traces on the description
- Provide a test case to reproduce if can be done
Finding JIRAs to fix, good starting point
Download the code

Anyone can read the code
Anyone can provide a patch
Only committers can write to the repository
There are different subprojects under Java (SCA, SDO, DAS, ..)

Developers Guide with general info on how to check out code and build is on:
How do I learn more about a release?

- Download the release
  - There is a binary and source distribution for each supported platform

- Check important distribution artifacts
  - RELEASE_NOTES
  - CHANGES

- Learn how the code works via samples, tests
Tuscany Binary and Source distribution

Java SCA binary distribution
- Demos
- Binary Dependencies
- Tuscany binaries
- Samples
- Tutorial

Java SCA source distribution
- Demos
- Distributions
- Integration Tests
- Implementation Modules
- Samples
- Tools
- Tutorial
Running a sample from a distribution

- `cd tuscany-sca-1.2.1-incubating\samples\calculator`
- `ant run`
  - Buildfile: build.xml
  - run:
    - `[java] 3 + 2=5.0`
    - `[java] 3 - 2=1.0`
    - `[java] 3 * 2=6.0`
    - `[java] 3 / 2=1.5`
I have found this bug, and have a fix for it. How can I give it back to the Tuscany Project?

- Communicate to the community that there is an issue by creating a new JIRA issue
  - Bugs
  - New Features
  - etc
- Discuss your design approach on the mailing list or in the JIRA.
- Attach the fix to the JIRA
- Please do not put code on the mailing list as a patch.
Contributing your fixes – Patch process

- Configure your svn properties
  - https://svn.apache.org/repos/asf/tuscany/java/etc/svn-props
- Checkout the code
  - https://svn.apache.org/repos/asf/tuscany/java/sca/
  - Use svn client or TortoiseSVN
- Modify a file(s)
  - Edit modules/pom.xml
  - New files need to be added
    - svn add
- Check modified files
  - svn status
- Generate patch
  - Svn diff > my_updates.patch
  - Attach the patch to the related JIRA. If a JIRA does not exist, create one.
    - Make sure you grant Apache License
    - Make sure you mark the flag that says a patch is included
- Someone in the community will pick up the patch, review it and apply it or ask for more information.
How to get JIRAs into releases

I really need this fix. How do I get it into next Tuscany release?

- Release takes a community effort to happen
  - Everyone is asked for their input and help
- Tuscany community tries to do a release every 6-8 weeks
- Make sure there is a JIRA for the problem or the new feature that clearly states the problem, scenario and tests if available.
- Remember this is a community effort. The fastest way to get fixes in is by providing patches otherwise the work gets prioritized against other requests
- Communicate the urgency of the JIRA for being included in the next release
Summary

- Getting involved in Apache Tuscany is easy. No invitation is required. You are welcome to join at any time.
  - Check Get involved
  - Subscribe to the right mailing list and ask questions, provide your input and contribute
  - Plenty of choices:
    - Report problems via JIRA
    - Provide patches
    - Contribute samples, scenarios
    - Provide feedback on the project is working for you
    - Contribute code
    - Help with the website content, documentation
    - .........

- Any type of contribution is valuable
Apache Tuscany Project Resources

- **Portal : Website & WIKI**
  - http://tuscany.apache.org
  - http://cwiki.apache.org/confluence/display/TUSCANYWIKI/Home

- **Repository (SVN)**
  - https://svn.apache.org/repos/asf/tuscany/java/sca/

- **Issues Tracking System (JIRA)**
  - http://issues.apache.org/jira/browse/Tuscany

- **Mailing List (user, dev, commit)**

- **Downloading Releases**

- **Documentation**