



## Voice Tools Project

**April 19, 2006**

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# Introduction



- Major project milestones
  - Proposed August 2004
  - Created February 2005
  - IBM contribution April 2005, Tellme contribution December 2005
  - Milestones Fall 2005, January 2006
  - Stable Build February 2006
- Continuing to grow ecosystem
  - Three organizations have contributed code (IBM, Tellme, VoiceGenie)
  - Seven participating organizations (Audium, IBM Server Speech, IBM Multimodal Speech, Tellme, VoiceGenie, HP, SandCherry)
    - Most (4) working on VTP-based products, two released

# VTP 1.0 Key Feature Set



- Add voice markup editors to WTP
  - VoiceXML, SRGS, CCXML
- Add voice elements to WTP experience
  - Templates, DTDs, Preference Pages
- Voice execution environment
  - API for communication
  - UI elements around running voice applications
  - Sample implementation of API

# Responding to community feedback



- Added execution environment
- Increased flexibility of browser input API
- Providing better information for developers

# Documentation and Examples



- VTP download includes online documentation
  - Editor contribution content created by professional technical writers
- Tutorials and presentations available from or linked from <http://www.eclipse.org/vtp/>
  - Current: VoiceXML Review, IBM developerWorks, SpeechTEK 2005, VTP tutorials
  - EclipseCon 2006
- Completed Phoenix web site transition – <http://www.eclipse.org/vtp/>

## PR activity



- Press release in support of contribution, project activity
  - <http://www-03.ibm.com/press/us/en/pressrelease/19293.wss>
  - Covered by major technology press (InfoWorld, Sys-CON, etc)
- VTP noted by IBM in EclipseCon 2006 release:
  - <http://www-03.ibm.com/press/us/en/pressrelease/19439.wss>

# API: Status of 1.0 Content



- Markup defaults API
  - Documentation status: Usage information, 3 clients in VTP, Javadoc
  - Test cases
- Voice Browser API
  - Documentation status: Usage information, 4 clients in VTP, Javadoc
  - Test cases
  - 3 external clients being built for products
- No previous releases so no API compatibility issues

# Architectural Issues



- Mid-release dependency switch from WTP 0.7 to 1.0
  - Moved plug-in naming to mirror conventions of WTP plug-ins
- No WTP linkage for browser; WTP 'Run on Server' assumes HTML
- No examples exists for catching some VoiceXML Browser events in VTP (thrown but never caught)
  - Tutorial on catching events available



# Defect Statistics



- As of February 10, 2006:
  - 5 NEW
  - 0 ASSIGNED
  - 0 REOPENED
  - 9 RESOLVED
  - 13 VERIFIED
  - 8 CLOSED
  
- Release exit criteria – 0 high severity defects, 100% test attempt/pass
  - All tests in CVS

# Standards



- Provides support for W3C Voice Browser standards:
  - VoiceXML 2.1
  - CCXML 1.0
  - SRGS XML 1.0
- Voice Browser API utilizing XML form of W3C's Semantic Interpretation for Speech Recognition (SISR)

# Process: Committer and Contributors



- 6 committers from 4 companies
  - Participation in discussion and design from seven organizations
- Committer election held following charter principles
- Continuing to evangelize and seek additional contributors
- Open communication via development mailing list
- Weekly development calls
  - Recently transitioned to mailing list
- Face to face meeting of VTP participants at SpeechTEK '05, EclipseCon '06
- Open release planning
  - Open discussion on weekly calls, mailing list
  - Bugzilla used to track defects
- Contributions made directly to Eclipse CVS
  - Nightly and milestone builds available
  - Build process open and part of CVS

# Process: Community



- Download activity
  - ~500 downloads/month
  - ~100 downloads of milestone within 48 hours of release
- Outreach to Voice community
  - 2 Presentations at SpeechTEK 2005, 1 at SpeechTEK West 2006
  - Talk at EclipseCon 2006
  - Evangelization through VoiceXML Forum ([www.voicexml.org](http://www.voicexml.org))

# Intellectual Property



- Accepting contributions (In-Bound Licensing)
  - All code contributed under Eclipse Public License (EPL) 1.0
  - All prior CPL contributions re-contributed under EPL
  - Inclusion of 3 W3C DTDs had EMO approval
- License files in place
  - notice.html/epl-v10.html in root, license.html in feature, etc.
- Due Diligence and Record Keeping
  - All committers completed Eclipse Committer Agreement & Approved by PMC/EMO
  - Legal source scan of major contributions
  - Project IP log available on VTP site

# Lessons Learned



- Project information must be easily discoverable to encourage new involvement
- Pre-baking donations yields poorer community involvement than open development from the beginning
- Mailing list activity is preferable to teleconferences if participation on calls is significantly lower than interested parties
- Strongly resist tendency of new participants to pre-discuss open development in private email

# Forward Plans



- VTP 1.0 Release
  - Support for WTP 1.0
- Align development with ECF
  - Reuse/collaboration on call management APIs to access voice services
- Add support for JVoiceXML (open source VoiceXML browser)
  - JVoiceXML project lead already using VTP APIs, readying contribution now
- Support new speech markups, including XHTML+VoiceXML (VoiceXML inside web pages)
- Align with WTP releases
  - Support WTP Callisto with update
  - Align maintenance releases as needed with maintenance releases of WTP
- Target post-Callisto WTP release
  - Long-term inclusion in WTP Project

## So, what does the community think?



- “Overall my experience with extending the VTP is very positive” – Marcus Shaw, Intervoice
- “The Eclipse Voice Tools Project helps to promote open standards for voice applications and the development of these applications within Eclipse. Additionally, Audium believes that the VTP encourages the development of both open source and commercial Eclipse based voice tools.” – Joe Oh, Audium
- "As the speech industry matures, the pressure is mounting to deliver quality speech applications as rapidly and as inexpensively as possible in order to remain competitive. The Voice Tools Project clearly address both speed and price by providing a zero-cost open source solution to the need for a tool suite that can dramatically enhance application development efficiency.” – Bill Scholz, Unisys