

# WebServices - Axis

## 1. WebServices - Axis - Changes from beta1 to beta2

- javax interfaces are now fully compatible with JAX-RPC version 0.8. And the implementation mostly supports these interfaces.
- Server-side skeletons are no longer generated by default (they can still be generated with the option '--skeletonDeploy true'). If the skeleton exists, WSDL metadata resides within it. If the skeleton does not exist, WSDL metadata resides in deploy.wsdd.
- Generated beans now include robust toString(), equals(..) and hashCode() methods.
- Additional XML-type support:
  - attribute/element "format" attributes.
  - derived complexTypes.
  - an element or attribute without a type correctly defaults to xsd:anyType.
  - abstract attributes on complexTypes.
- The bindings for the echo sample are now generated from a wsdl file.
- WSDL2Java only generates referenced types (unless --all is specified). Now, derived types are considered referenced if their base type is referenced. If the WSDL file contains xsd:anyType, then all types are considered referenced.
- Meta data and serializer/deserializer access can be embedded in the bean class or a helper class.
- Password support in WSDL2Java
- Improvements to SerializationContext to allow specification of both javaType and xmlType.
- Serialization/deserialization of beans that have public fields instead of getter/setter methods.
- The runtime for beta 2 is built in debug (so when folks have problems and give us stack traces, we can see line numbers).
- Various bug fixes and improvements.