

| Rule                                     | Enabled | Reason  |
|--|---------|---|
| 'ANYONE' Method Permission               | No      | not relevant  |
| Abstract Specialization                  | Yes     | Enabled   |
| Accessor Method Naming Convention        | No      | SetXX, GetXX are not the preferred method names as per our coding guidelines                  |
| Accessor Usage in Defining Class         | Yes     | Enabled   |
| Accidental Concatenation                 | Yes     | Enabled   |
| Action Field Revalidated                 | No      | not relevant  |
| Action Method Returns Unknown Value      | No      | not relevant  |
| Action Revalidated                       | No      | not relevant  |
| Add Method to Interface                  | Yes     | Enabled   |
| Allow compareTo to Throw Exceptions      | Yes     | Enabled   |
| Always Override toString                 | No      | Do we need this ? If needed we can use lombok to handle this                                  |
| Always Use Identifier Names              | No      | not relevant  |
| Annotation Type Naming Convention        | Yes     | Enabled   |
| Anonymous Authentication in LDAP         | No      | not relevant  |
| Anonymous Class in Loop                  | Yes     | Enabled   |
| Anonymous Class Member Visibility        | Yes     | Enabled   |
| Append String                            | Yes     | Enabled   |
| Applet Field Security                    | No      | not relevant  |
| Apply Dialog Font                        | No      | not relevant  |
| Array and non-Array Comparison           | Yes     | Enabled   |
| Array Comparison                         | Yes     | Enabled   |
| Array Is Stored Without Copying          | Yes     | Enabled   |
| Assignment In Condition                  | Yes     | Enabled   |
| Assignment to Non-final Static           | Yes     | Enabled   |
| Attribute Injection                      | No      | not relevant  |
| Authentication By Hostname               | No      | not relevant  |
| Avoid Accessing the FactoryBean Directly | No      | not relevant  |
| Avoid Auto-boxing                        | No      | Should we enable this rule ? There are just too many instances where we are using autoboxing. |
| Avoid Auto-unboxing                      | No      | Should we enable this rule ? There are just too many instances where we are using autoboxing. |
| Avoid Building Queries From User Input   | No      | not relevant  |
| Avoid Class Loaders in EJB               | No      | not relevant  |
| Avoid Comparing Classes By String Names  | Yes     | Enabled   |
| Avoid Fields in Action Classes           | No      | not relevant  |
| Avoid File IO in EJB                     | No      | not relevant  |
| Avoid Finalizers                         | Yes     | Enabled   |
| Avoid Future Keywords                    | Yes     | Enabled   |
| Avoid GUI in EJB                         | No      | not relevant  |
| Avoid Inner Classes                      | No      | I think its fine to use Inner classes, Should we leave this disabled.                         |
| Avoid Instance Initializers              | Yes     | Enabled   |

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| Avoid Instantiation in Loops                            | Yes | Enabled  |
| Avoid Instantiation to Get Class                        | Yes | Enabled  |
| Avoid Loading Native Libraries                          | No  | not relevant   |
| Avoid Managing Threads                                  | No  | not relevant   |
| Avoid Nested Assignments                                | No  | There are number of places where we do things like " buf = readSizeBuf = new byte[4];" to make the code look concise.    |
| Avoid Nested Blocks                                     | Yes | Enabled  |
| Avoid null Return Values                                | No  | I think there are number of places where we return null.   |
| Avoid Octal Literals                                    | Yes | Enabled  |
| Avoid Package Scope                                     | No  | This audit flags all inner classes, constructors, methods, and fields that have a package scope. Should we enable this ? |
| Avoid Passing this Reference as Argument                | Yes | Enabled  |
| Avoid Primitive Method Parameters                       | No  | I think this is against our coding style, primitives are preferred over warpper classes.                                 |
| Avoid Similar Names                                     | No  | Not enabled.   |
| Avoid Sockets in EJB                                    | No  | not relevant   |
| Avoid StringBuffer Instantiation With Character Literal | Yes | Enabled  |
| Avoid Subtyping Cloneable                               | Yes | Enabled  |
| Avoid Synchronization in EJB                            | No  | not relevant   |
| Avoid the no-argument String constructor                | Yes | Enabled  |
| Avoid Unsafe Array Declaration                          | No  | This audit rule flags an array declared public, static and final. - disabled.  |
| Avoid Using "Field Access" Strategy                     | No  | not relevant   |
| Avoid Using "instanceof"                                | No  | rule conflicts with other rules.   |
| Avoid Using Autowiring                                  | No  | not relevant   |
| Avoid Using Enterprise Schemas Version                  | No  | not relevant   |
| Avoid Utility Methods                                   | No  | Should we enable this rule ?   |
| Badly Located Array Declarators                         | Yes | Enabled  |
| Base64-Encoded Password                                 | No  | not relevant   |
| Bean Members Should Be Serializable                     | No  | not relevant   |
| Beware of URL equals() and hashCode()                   | Yes | Enabled  |
| Blank Line Usage  | No  | Not aligned to our coding standards.   |
| Blank Password  | No  | not relevant   |
| Block Depth   | Yes | Enabled  |
| Boolean Method Naming Convention                        | No  | Not aligned to our coding standards.   |
| Brace Position  | No  | taken care by code formatter.  |
| Break with Label  | Yes | Enabled  |
| Bundle Activation Policy Compatibility (3.3)            | Yes | Enabled  |
| Business Logic in ActionForm                            | No  | not relevant   |
| Call Lock Without Unlock                                | Yes | Enabled  |

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| Caught Exceptions                     | Yes | Enabled  |
| Character Comparison                  | Yes | Enabled  |
| Check Enabled Before Logging          | Yes | Enabled  |
| Check Enabled Before Logging          | Yes | Enabled  |
| Check Type In Equals                  | Yes | Enabled  |
| Class Extends java.security.Policy    | No  | not relevant   |
| Class getName() Usage                 | Yes | Enabled  |
| Class Naming Convention               | Yes | Enabled  |
| Class Should Be Final                 | No  | This audit rule looks for classes that do not have any subclasses but are not marked as final. - Should we enable this ?   |
| Class Should Define Validate Method   | No  | not relevant   |
| Class Should Have Final Static Fields | No  | not relevant   |
| Class Should Have Private Fields      | No  | not relevant   |
| Class Should Validate All Fields      | No  | not relevant   |
| Classes Should be Their Own Proxy     | No  | not relevant   |
| Client Request Not Encrypted          | No  | not relevant   |
| Client Request Not Signed             | No  | not relevant   |
| Client Request Timestamp Not Signed   | No  | not relevant   |
| Client Response Not Encrypted         | No  | not relevant   |
| Client Response Not Signed            | No  | not relevant   |
| Client Response Timestamp Not Signed  | No  | not relevant   |
| Client Timestamp Does Not Expire      | No  | not relevant   |
| Client Uses Username Token            | No  | not relevant   |
| Clone Method Usage                    | Yes | Enabled  |
| Clone Without Cloneable               | Yes | Enabled  |
| Cloneable Without Clone               | Yes | Enabled  |
| Close Connection Where Created        | Yes | Enabled  |
| Close Elements in Renderer            | No  | not relevant   |
| Close In Finally                      | Yes | Enabled  |
| Close Order                           | Yes | Enabled  |
| Close Result Set Where Created        | Yes | Enabled  |
| Close Sessions Where Opened           | No  | not relevant   |
| Close Statement Where Created         | Yes | Enabled  |
| Close Where Created                   | No  | Creates lots false positive - cases where resources need to be passed around or stored as instance variables we can't close these resources in the same block of code. |
| Code in Comments                      | No  | Doesn't work correctly.  |
| Code Injection                        | No  | not relevant   |
| Command Execution                     | Yes | Enabled  |
| Command Injection                     | No  | not relevant   |
| Comment Local Variables               | No  | Should we enable this ?  |
| Comparison Of Constants               | Yes | Enabled  |
| Comparison Of Incompatible Types      | Yes | Enabled  |
| Comparison Of Short And Char          | Yes | Enabled  |

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| Complex Type Element Naming Convention         | No  | not relevant  |
| Complex Type Naming Convention                 | No  | not relevant  |
| Concatenation In Appending Method              | Yes | Enabled   |
| Concurrent Modification                        | Yes | Enabled   |
| Conditional Operator Use                       | No  | Should we enable this ? We have used conditional operator in many places. |
| Configure Logging In File                      | Yes |   |
| Consistent Suffix Usage                        | Yes | Enabled   |
| Constant Condition                             | Yes | Enabled   |
| Constant Conditional Expression                | Yes | Enabled   |
| Constant Field Naming Convention               | Yes | Enabled   |
| Constants in Comparison                        | No  | should we enable this ?   |
| Constructors Only Invoke Final Methods         | Yes | Enabled   |
| Container Should Not Contain Itself As Element | Yes | Enabled   |
| Continue with Label                            | Yes | Enabled   |
| Convert Class to Interface                     | Yes | Enabled   |
| Create Global Forward                          | No  | not relevant  |
| Cross-Site Scripting                           | No  | not relevant  |
| Cyclomatic Complexity                          | Yes | Enabled   |
| Dangling Else                                  | Yes | Enabled   |
| Database Connections Should Not Be Static      | Yes | Enabled   |
| Date and Time Usage                            | Yes | Enabled   |
| Debugging Code                                 | Yes | Enabled   |
| Declare Accessors for All ActionForm Fields    | No  | not relevant  |
| Declare Accessors for Persistent Fields        | No  | not relevant  |
| Declare As Interface                           | Yes | Enabled   |
| Declare Default Constructors                   | No  | Should we enable this rule?   |
| Declare Identifier Properties                  | No  | not relevant  |
| Declare Private Identifier Setter              | No  | not relevant  |
| Declare Setters for Bean Fields                | No  | not relevant  |
| Declare Type for java.util.Date Property       | No  | not relevant  |
| Declared Exceptions                            | Yes | Enabled   |
| Default Namespace                              | No  | not relevant  |
| Default Not Last in Switch                     | Yes | Enabled   |
| Define Constants in Interfaces                 | No  | Should we enable this ? We have exceptions to this rule in our code.      |
| Define Initial Capacity                        | No  | Should we enable this ? We have exceptions to this rule in our code.      |
| Define Load Factor                             | No  | Should we enable this ? We have exceptions to this rule in our code.      |
| Delete Temporary Files                         | Yes | Enabled   |
| Denial of Service Threat                       | Yes | Enabled   |
| Deploy Mappings With Mapped Classes            | No  | not relevant  |
| Deprecated Method Found                        | Yes | Enabled   |

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| Dereferencing Null Pointer                          | Yes | Enabled  |
| DeSerializeability Security                         | No  | Rule enforces All classes to implement a readObject method - Not needed in my opinion                              |
| Detect Multiple Iterations                          | Yes | Enabled  |
| Disallow @Test Annotation                           | No  | This rules states that @Test annotation should not be used. - Not sure why ?                                       |
| Disallow Array Initializers                         | No  | Arrays should not be statically initialized by an array initializer. Should we enable this rule ?                  |
| Disallow AST toString()                             | Yes | Enabled  |
| Disallow Default Package                            | Yes | Enabled  |
| Disallow Native Methods                             | Yes | Enabled  |
| Disallow Notify Usage                               | Yes | Enabled  |
| Disallow Sleep Inside While                         | Yes | Enabled  |
| Disallow Sleep Usage                                | Yes | Enabled  |
| Disallow Temporary Sessions                         | No  | not relevant   |
| Disallow ThreadGroup Usage                          | Yes | Enabled  |
| Disallow Unnamed Thread Usage                       | Yes | Enabled  |
| Disallow Use of AWT Peer Classes                    | Yes | Enabled  |
| Disallow Use of Deprecated Thread Methods           | Yes | Enabled  |
| Disallow Yield Usage                                | Yes | Enabled  |
| Disallowed File                                     | Yes | Some files should not exist in a project. Should be enabled at a project level                                     |
| Dispose Should Be Invoked                           | No  | not relevant   |
| Do not Access/Modify Security Configuration Objects | No  | not relevant   |
| Do not Catch IllegalMonitorStateException           | Yes | Enabled  |
| Do Not Create Finalizable Objects                   | No  | Doesn't allow to create objects like FileInputStream etc.  |
| Do Not Declare Bindings                             | No  | not relevant   |
| Do Not Implement Outdated Interfaces                | Yes | Enabled  |
| Do Not Implement Serializable                       | No  | This audit rule violates classes and interfaces that implement Serializable. Not relevant to us I think ?          |
| Do Not Invoke setSize()                             | No  | not relevant   |
| Do Not Serialize Byte Arrays                        | No  | This audit rule violates invocations of the method ObjectOutputStream.write(byte[]). - Not relevant to us I think. |
| Do Not Subclass ClassLoader                         | Yes | Enabled  |
| Document Closing Braces                             | No  | Should we enable this rule ? I think it creates clutter.   |
| Don't Create Unused Error                           | No  | not relevant   |
| Don't Encode Markup in Renderer                     | No  | not relevant   |
| Don't Instantiate Beans                             | No  | not relevant   |

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| Don't Return Mutable Types                   | No  | Don't return mutable types from methods. - should we enable this ?   |
| Don't use concatenation to convert to String | Yes | Should we enable this rule ? We are using string concatenation in many places ?  |
| Don't Use Default Bean Names                 | No  | not relevant   |
| Don't use HTML Comments                      | No  | not relevant   |
| Double Check Locking                         | Yes | Enabled  |
| Duplicate Import Declarations                | Yes | Enabled  |
| Duplicate Property Name                      | Yes | Enabled  |
| Duplicate Property Value                     | No  | There can be many properties that have same value - e.g. transactional=true and locking=true, this rules flags them as errors. |
| Duplicate Validation Form                    | No  | not relevant   |
| Dynamic Dependency in Ivy                    | No  | not relevant   |
| Dynamic Dependency in Maven                  | Yes | Enabled  |
| Dynamically Compose Test Suites              | Yes | Enabled  |
| Efficient Expression                         | Yes | Enabled  |
| Either Nillable Or MinOccurs                 | No  | not relevant   |
| Empty Catch Clause                           | Yes | Enabled  |
| Empty Class                                  | Yes | Enabled  |
| Empty Do Statement                           | Yes | Enabled  |
| Empty Enhanced For Statement                 | Yes | Enabled  |
| Empty Finalize Method                        | Yes | Enabled  |
| Empty Finally Clause                         | Yes | Enabled  |
| Empty For Statement                          | Yes | Enabled  |
| Empty If Statement                           | Yes | Enabled  |
| Empty Initializer                            | Yes | Enabled  |
| Empty Method                                 | Yes | Enabled  |
| Empty Statement                              | Yes | Enabled  |
| Empty String Detection                       | Yes | Enabled  |
| Empty Switch Statement                       | Yes | Enabled  |
| Empty Synchronized Statement                 | Yes | Enabled  |
| Empty Try Statement                          | Yes | Enabled  |
| Empty While Statement                        | Yes | Enabled  |

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|   | No  | This audit rule requires almost All classes to override the clone method, Should we enable this ? this rule flags non-anonymous classes that:<br>(1) do not implement Cloneable (so that the rule doesn't flag appropriate uses of Cloneable utilities),<br>(2) are non-final (final classes can't be extended),<br>(3) do not inherit a clone method (since inserting a clone method would be unnecessarily repetitive),<br>(4) and do not override clone(): |
| Enforce Cloneable Usage                             |     |   |
| Enforce Singleton Property with Private Constructor | Yes | Enabled   |
| Entity Bean's Remote Interface                      | No  | not relevant  |
| Entity Beans  | No  | not relevant  |
| Entry Point Method                                  | Yes | Enabled   |
| Enumerated Type Naming Convention                   | Yes | Enabled   |
| Enumeration Constant Naming Convention              | Yes | Enabled   |
|   | No  | Environment variables should not be accessed because not all platforms have support for environment variables. - We are using environment variable for setting project root path should we remove it ?  |
| Environment Variable Access                         |     |   |
| Equality Test with Boolean Literal                  | Yes | Enabled   |
| Exception Creation                                  | Yes | Enabled   |
|   | No  | This rule states that Exceptions should be declared to inherit from Exception, but not from either RuntimeException or RemoteException. Not aligned with our coding standards ?   |
| Exception Declaration                               |     |   |
| Exception Parameter Naming Convention               | Yes | Enabled   |
| Explicit "this" Usage                               | Yes | Enabled   |
| Explicit Invocation of Finalize                     | Yes | Enabled   |
| Explicit Subclass of Object                         | Yes | Enabled   |
| Expression Evaluation                               | Yes | Enabled   |
| External Dependency in Ant                          | No  | not relevant  |
| External Dependency in Ivy                          | No  | not relevant  |
|   | No  | Probably it doesn't work correctly, flags "http://maven.apache.org/POM/4.0.0" to be 'external',   |
| External Dependency in Maven                        |     |   |
| Extra Semicolon                                     | Yes | Enabled   |
| Fail Invoked in Catch                               | Yes | Enabled   |
|   | Yes | Enabled   |
| Favor Static Member Classes over Non-Static         |     |   |

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| Field Access Protection                   | Yes | Enabled  |
| Field Javadoc Conventions                 | Yes | Enabled  |
| Field Might Have Null Value               | No  | This is taken care by JSR 305, Should we enable this rule ?  |
| Field Only Used in Inner Class            | Yes | Enabled  |
| File Comment                              | No  | File comments are not enabled currently.   |
| File Length                               | Yes | 2000 lines (all lines including comments.)   |
| Filename Given Out                        | No  | not relevant   |
| Final Method Parameter In Interface       | Yes | Enabled  |
| Finalize Method Definition                | Yes | Enabled  |
| Finalize Should Not Be Public             | Yes | Enabled  |
| Float Comparison                          | Yes | Enabled  |
| Floating Point Use                        | No  | "Floating point values should rarely be used because of the potential for rounding errors." should we enable this rule ? |
| Form Does Not Extend Validator Class      | No  | not relevant   |
| Fully Parenthesize Expressions            | No  | Not needed I think, add unnecessary noise.   |
| Getter and Setter Methods Should Be Final | No  | Getter and setters are not as per our naming conventions, I think we can ignore this ?                                   |
| Handle Numeric Parsing Errors             | Yes | Enabled  |
| Hardcoded Password                        | Yes | Enabled  |
| Hiding Inherited Fields                   | Yes | Enabled  |
| Hiding Inherited Static Methods           | Yes | Enabled  |
| HTTP Response Splitting                   | No  | not relevant   |
| Illegal Main Method                       | Yes | Enabled  |
| Implement a Zero-Argument Constructor     | No  | not relevant   |
| Implement BeanNameAware Interface         | No  | not relevant   |
| Implement Iterable                        | Yes | Enabled  |
| Implicit Subclass of Object               | No  | it says ""Object" should be explicit specified as a superclass." Not needed I think ?                                    |
| Import of Implicit Package                | Yes | Enabled  |
| Import Order                              | No  | TBD  |
| Import Style                              | Yes | Enabled  |
| Improper calculation of array hashCode    | Yes | Enabled  |
| Improper conversion of Array to String    | Yes | Enabled  |
| Improper Use of Thread.interrupted()      | Yes | Enabled  |
| Inappropriate Language                    | Yes | Enabled  |
| Include Implementation Version            | No  | MF files are auto generated, "Manifest-Version:" is present but this rule still flags error.                             |
| Incompatible Renderer Type                | No  | not relevant   |
| Incompatible types stored in a collection | Yes | Enabled  |
| Incomplete reset()                        | No  | not relevant   |
| Incomplete State Storing                  | Yes | Enabled  |
| Incomplete Validation Method              | No  | not relevant   |
| Inconsistent Conversion Using toArray()   | Yes | Enabled  |
| Inconsistent Use of Override              | Yes | Enabled  |



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| Inconsistent Validator Attribute                | No  | not relevant  |
| Incorrect Argument Type                         | Yes | Enabled   |
| Incorrect Use of equals() and compareTo()       | Yes | Enabled   |
| Indent Code Within Blocks                       | No  | taken care by code formatter.   |
| Index Arrays with Ints                          | Yes | Enabled   |
| Inefficient use of toArray()                    | Yes | Enabled   |
| Initialize Static Fields                        | Yes | Enabled   |
| Instance Field Naming Convention                | Yes | Enabled   |
| Instance Field Security                         | No  | disallows non-final public instance fields. - should we enable this rule ? (We'll need to make all the public/protected non-final fields as private and provide accessor methods) |
| Instance Field Visibility                       | Yes | Enabled   |
| Integer Division in a Floating-point Expression | Yes | Enabled   |
| Interface Naming Convention                     | Yes | Enabled   |
| Invalid Check For Binding Equality              | No  | not relevant  |
| Invalid Check For Java Model Identity           | No  | not relevant  |
| Invalid DBC Tag Value                           | No  | not relevant  |
| Invalid Form Bean Class                         | No  | not relevant  |
| Invalid Loop Construction                       | Yes | Enabled   |
| Invalid Property Type Mapping                   | No  | not relevant  |
| Invalid Source for Database Connection          | No  | not relevant  |
| Invalid Visitor Usage                           | Yes | Enabled   |
| Invocation of Default Constructor               | Yes | Enabled   |
| Invoke super.finalize() from within finalize()  | Yes | Enabled   |
| Invoke super.release() Within release()         | No  | not relevant  |
| Invoke super.setUp() from within setUp()        | Yes | Enabled   |
| Invoke super.tearDown() from within tearDown()  | Yes | Enabled   |
| Invoke super.validate() in validate()           | No  | not relevant  |
| Invoke Synchronized Method In Loop              | Yes | Enabled   |
| JNDI Naming Standard                            | No  | not relevant  |
| JUnit Framework Checks                          | Yes | Enabled   |
| Label Naming Convention                         | Yes | Enabled   |
| Large Number of Constructors                    | Yes | Enabled   |
| Large Number of Fields                          | Yes | Max 10  |
| Large Number of Methods                         | Yes | Max 15  |
| Large Number of Parameters                      | Yes | Max 7   |
| Large Number of Switch Statement Cases          | Yes | Enabled   |
| Lazily Initialize Singletons                    | Yes | Enabled   |
| Line Length                                     | No  | taken care by code formatter.   |

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|  | Yes | Variable declaration first in block - disabled.<br>Variable declaration first in method - disabled<br>Explicitly initialize each local variable - disabled<br>Declare each local variable in separate statement. - enabled |
| Local Declarations                           |     |  |
| Local Variable Naming Convention             | Yes | Enabled  |
| Log Exceptions                               | Yes | also taken care by Log4e   |
| Log Forging                                  | Yes | Enabled  |
| Log Level                                    | Yes | Enabled  |
| Loop Variable Naming Convention              | Yes | Enabled  |
|  | No  | This rule doesn't allow to down cast from int to byte etc, there are many places in our code where we need to do this.   |
| Loss of Precision in Cast                    |     |  |
| Manipulation with XPath                      | No  | not relevant   |
| Message Beans                                | No  | not relevant   |
|  | No  | not relevant   |
| Message Document Must Have Version Attribute |     |  |
| Method Chain Length                          | Yes | Enabled  |
|  | No  | it says "Methods that are not supposed to be overridden should be declared final." - should we enable this rule ?  |
| Method Could Be Final                        |     |  |
|  | No  | It allows only some methods to be invoked inside loop conditions, there are number of exception to this rule in our code, should we enable this rule ?   |
| Method Invocation in Loop Condition          |     |  |
| Method Javadoc Conventions                   | Yes | Enabled  |
| Method Naming Convention                     | Yes | Enabled  |
| Method Parameter Naming Convention           | Yes | Enabled  |
|  | No  | It says "Method should be private if it is not member of an interface and it doesn't override method of superclass and isn't overridden by subtype. " should we enable this rule ?   |
| Method Should Be Private                     |     |  |
|  | No  | "Methods that do not access any instance state or instance methods should be static." should we enable this rule ?   |
| Method Should Be Static                      |     |  |
| Mime Encoding Method Usage                   | No  | not relevant   |
|  | No  | This rule recommends to convert the while-loop to a for-loop, for cases like 'while (beltr.hasNext())' - I think while-loop is looks cleaner in these cases.   |
| Minimize Scope of Local Variables            |     |  |
| Mismatched Notify                            | Yes | Enabled  |
| Mismatched Wait                              | Yes | Enabled  |
| Missing Application Context File             | No  | not relevant   |

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| Missing Assert in JUnit Test Method                | Yes | Enabled   |
| Missing Bean Description                           | No  | not relevant  |
| Missing Block                                      | No  | not consistent with our coding guidelines. I think ?  |
| Missing Catch of Exception                         | No  | not relevant  |
| Missing Class in web.xml                           | No  | not relevant  |
| Missing Constants In Switch                        | Yes | Enabled   |
| Missing Default in Switch                          | Yes | Enabled   |
| Missing Error Page                                 | No  | not relevant  |
| Missing Image File                                 | No  | not relevant  |
| Missing Message                                    | No  | not relevant  |
| Missing Message in Assert                          | Yes | Enabled   |
| Missing Namespace Grouping Identifiers             | No  | not relevant  |
| Missing Namespace Version                          | No  | not relevant  |
| Missing Or Misplaced Manifest Version              | Yes | Enabled   |
| Missing Or Misplaced Section Name                  | Yes | Enabled   |
| Missing reset() Method                             | No  | not relevant  |
| Missing static method in non-instantiable class    | Yes | Enabled   |
| Missing Update in For Statement                    | Yes | Enabled   |
| Missing Validator Name                             | No  | not relevant  |
| Misspelled Method Name                             | Yes | Enabled   |
| Modifier Order                                     | Yes | Enabled   |
| More Than One Logger                               | Yes | Enabled   |
| Multiple Return Statements                         | No  | "Methods should have a single return statement." Should we enable this rule ?   |
| Multiplication Or Division By Powers of 2          | No  | "Do not multiply or divide by powers of 2." The shift operator is faster and more efficient. Should we enable this rule ? |
| Mutability Of Arrays                               | No  | "Do not return internal arrays from non-private methods." I don't think this is consistent with our thinking              |
| Mutable Constant Field                             | No  | "Disallows public static final mutable type fields." should we enable this rule ?   |
| Nested Synchronized Calls                          | Yes | Enabled   |
| Never Use the Identifier in equals() or hashCode() | No  | not relevant  |
| Next method invoked without hasNext method         | Yes | Enabled   |
| No Abstract Methods                                | Yes | Enabled   |
| No Action For Validation                           | No  | not relevant  |
| No DB Driver Loading                               | No  | not relevant  |
| No Explicit Exit                                   | Yes | Enabled   |
| No Explicit This Use in EJB's                      | Yes | Enabled   |
| No Instance Fields In Portlets                     | No  | not relevant  |
| No Instance Fields In Servlets                     | No  | not relevant  |

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| No Public Members   | Yes | Some classes can have only protected members e.g. classes that implement an abstract class. - This rule is enabled but some classes are excluded.            |
| No Run Method   | Yes | Enabled  |
| No Set-up in Constructors                                 | Yes |  |
| No Such Field For Validation                              | No  | not relevant   |
| No Timestamp In Client Request                            | No  | not relevant   |
| No Timestamp In Client Response                           | No  | not relevant   |
| No Timestamp In Server Request                            | No  | not relevant   |
| No Timestamp In Server Response                           | No  | not relevant   |
| No Validation Message                                     | No  | not relevant   |
| Non Static Logger   | Yes | Enabled  |
| Non-atomic File Operations                                | No  | This rule flags things like (which is valid.)<br>if (databaseDir.exists())<br>throw new DBException("Database already exists");                              |
| Non-blank Final Instance Field                            | Yes | Enabled  |
| Non-case Label in Switch                                  | Yes | Enabled  |
| Non-conforming Backing Bean Methods                       | No  | not relevant   |
| Non-private Constructor in Static Type                    | Yes | Enabled  |
| Non-protected Constructor in Abstract Type                | Yes | Enabled  |
| Non-serializable Class Declares readObject or writeObject | Yes | Enabled  |
| Non-serializable Class Declares serialVersionUID          | Yes | Enabled  |
| Non-terminated Case Clause                                | Yes | Enabled  |
| Nonce Not Used  | No  | not relevant   |
| Notify method invoked while two locks are held            | Yes | Enabled  |
| Null Pointer Dereference                                  | No  | Doesn't seem to work as expected, JSR 305 works better.  |
| Numeric Literals  | No  | ""Numeric literals should not appear in code." - should we enable this rule  |
| Obey General Contract of Equals                           | No  | "The equals method should compare the identity of the receiver and the argument, returning true if they are the same." 'identity' ? not sure what that means |
| Obsolete Modifier Usage                                   | Yes | Enabled  |
| One Class per Mapping File                                | No  | not relevant   |
| One Statement per Line                                    | No  | taken care by code formatter.  |
| Overloaded Equals   | Yes | Enabled  |

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|   | No  | "Overloading method names can cause confusion and errors." This audit rule finds methods that are overloaded. Overloaded methods are methods that have the same name and the same number of parameters, but do not have the same types of parameters.- Not consistent with our coding |
| Overloaded Methods  |     |   |
| Override both equals() and hashCode()                           | Yes | Enabled   |
| Override Clone Judiciously                                      | Yes | Enabled   |
| Overriding a Non-abstract Method with an Abstract Method        | Yes | Enabled   |
| Overriding a Synchronized Method with a Non-synchronized Method | Yes | Enabled   |
| Overriding Private Method                                       | Yes | Enabled   |
| Package Javadoc   | No  | TBD   |
| Package Naming Convention                                       | Yes | Enabled   |
| Package Prefix Naming Convention                                | Yes | Enabled   |
| Package Structure   | Yes | All package names should start with 'com.paintedboxes'  |
| Parenthesize Condition in Conditional Operator                  | Yes | Enabled   |
| Parse Method Usage  | No  | "The parseXXX() methods for Numerics should not be used in an internationalized environment." should we enable this ?   |
| Password in File  | No  | "Storing passwords in a configuration file is a security risk." should we enable this ?   |
| Path Manipulation   | Yes | Enabled   |
| Plain Text Password   | Yes | Enabled   |
| Platform Specific Line Separator                                | No  | Doesn't seem to work as expected, reports error for things like '\t' , '\n'   |
| Pluralize Collection Names                                      | No  | should we enable this ?   |
| Possible Null Pointer   | No  | Taken care by JSR 305 annotations, which is a better way achieving this.  |
| Potential Infinite Loop   | Yes | Enabled   |
| Pre-compute Constant Calculations                               | Yes | Enabled   |
| Prefer Interfaces to Abstract Classes                           | No  | This rule flags all the abstract classes.   |
| Prefer Interfaces To Reflection                                 | Yes | Enabled   |
| Preferred Expression  | Yes | Enabled   |
| Prevent Overwriting Of Externalizable Objects                   | Yes | Enabled   |
| Process Control   | Yes | Enabled   |
| Proper Finalize Usage   | Yes | Enabled   |
| Proper Servlet Usage  | No  | not relevant  |
| Property File Must Exist  | No  | not relevant  |
| Protected Member in Final Class                                 | Yes | Enabled   |
| Public Constructor in Non-public Type                           | Yes | Enabled   |

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| Public Nested Type in Package Visible Type | Yes | Enabled  |
| Questionable Assignment                    | Yes | Enabled  |
| Questionable Name                          | Yes | Enabled  |
| Realm Debug Enabled                        | No  | not relevant   |
| Recursive Call With No Check               | Yes | Enabled  |
| Redirected With Password                   | No  | not relevant   |
| Redundant Assignment                       | Yes | Enabled  |
| Referenced Class Not Defined               | No  | not relevant   |
| Referenced Class Not Defined               | No  | not relevant   |
| Reflection Injection                       | Yes | Enabled  |
| Reflection Method Usage                    | No  | "Don't use Class getMethod(), getField(), getDeclaredMethod() or getDeclaredField() methods in production code." should we enable this ? |
| Relative Access to Enterprise Schemas      | No  | not relevant   |
| Relative Library Path                      | No  | not relevant   |
| Repeated Assignment                        | Yes | Enabled  |
| Replace Synchronized Classes               | Yes | Enabled  |
| Request Message Naming Convention          | No  | not relevant   |
| Request Parameters In Session              | No  | not relevant   |
| Resource Injection                         | No  | not relevant   |
| Resource URL Manipulation                  | No  | not relevant   |
| Response Message Naming Convention         | No  | not relevant   |
| Restricted Packages                        | Yes | Enabled  |
| Restricted Superclasses                    | Yes | Enabled  |
| ReThrown Exceptions                        | Yes | Enabled  |
| Return Boolean Expression Value            | Yes | Enabled  |
| Return Constant From getComponentType      | No  | not relevant   |
| Return Constant From getFamily             | No  | not relevant   |
| Return Constant From getRendererType       | No  | not relevant   |
| Return in Finally                          | Yes | Enabled  |
| Reusable Immutables                        | Yes | Enabled  |
| Reuse DataSources for JDBC Connections     | No  | not relevant   |
| Rollback Transaction on Exception          | No  | not relevant   |
| Runtime Method Usage                       | Yes | Enabled  |
| Same Validator Name                        | No  | not relevant   |
| Serializable Usage                         | Yes | Enabled  |
| Serializeability Security                  | Yes | Enabled  |
| Server Request Not Encrypted               | No  | not relevant   |
| Server Request Not Signed                  | No  | not relevant   |
| Server Request Timestamp Not Signed        | No  | not relevant   |
| Server Response Not Encrypted              | No  | not relevant   |
| Server Response Not Signed                 | No  | not relevant   |
| Server Response Timestamp Not Signed       | No  | not relevant   |
| Server Timestamp Does Not Expire           | No  | not relevant   |
| Server Uses Username Token                 | No  | not relevant   |

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| Service Naming Convention                          | No  | not relevant                  |
| Service Operation Naming Convention                | No  | not relevant                  |
| Service Provider Request Security Not Configured   | No  | not relevant                  |
| Service Provider Response Security Not Configured  | No  | not relevant                  |
| Service Requester Request Security Not Configured  | No  | not relevant                  |
| Service Requester Response Security Not Configured | No  | not relevant                  |
| Session Beans                                      | No  | not relevant                  |
| Session Must Be Synchronized                       | No  | not relevant                  |
| Session-scope Form Needs reset()                   | No  | not relevant                  |
| Simple Type Element Naming Convention              | No  | not relevant                  |
| Simple Type Naming Convention                      | No  | not relevant                  |
| Sleep method invoked in synchronized code          | Yes | Enabled                       |
| Sockets in Servlets                                | No  | not relevant                  |
| Source Length                                      | Yes | Enabled                       |
| Space After Casts                                  | No  | taken care by code formatter. |
| Space After Commas                                 | No  | taken care by code formatter. |
| Space Around Operators                             | No  | taken care by code formatter. |
| Space Around Periods                               | No  | taken care by code formatter. |
| Specify an Error Page                              | No  | not relevant                  |
| Specify Schema Version                             | No  | not relevant                  |
| Specify SOAP Actions For WSDL Operations           | No  | not relevant                  |
| Spell Check Comments                               | Yes | Enabled                       |
| Spell Check Identifiers                            | Yes | Enabled                       |
| Spell Check Property Comments                      | Yes | Enabled                       |
| Spell Check Property Names                         | No  | not relevant                  |
| Spell Check Property Values                        | No  | not relevant                  |
| Spell Check String Literals                        | Yes | Enabled                       |
| Spell Check XML Attribute Names                    | Yes | Enabled                       |
| Spell Check XML Attribute Values                   | Yes | Enabled                       |
| Spell Check XML Body Text                          | Yes | Enabled                       |
| Spell Check XML Comments                           | Yes | Enabled                       |
| Spell Check XML Tag Names                          | Yes | Enabled                       |
| SQL Injection                                      | Yes | Enabled                       |
| Start Method Invoked In Constructor                | Yes | Enabled                       |
| Statement Creation                                 | No  | not relevant                  |
| Static Field Naming Convention                     | Yes | Enabled                       |
| Static Field Security                              | No  | TBD                           |
| Static Instantiation                               | Yes | Enabled                       |
| Static Member Access                               | Yes |                               |
| String Comparison                                  | Yes | Enabled                       |

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|   | No  | should we enable this rule which doesn't allow String concatenation anywhere in the code? |
| String Concatenation                      |     |   |
| String Concatenation in Loop              | Yes | Enabled   |
| String Created from Literal               | Yes | Enabled   |
| String indexOf Use                        | Yes | Enabled   |
| String Literals                           | Yes | Enabled   |
|   | No  | Disallows usage of String.equals(), String.equalsIgnoreCase() and String.compareTo()      |
| String Method Usage                       |     |   |
| StringTokenizer Usage                     | No  | Disallows usage of StringTokenizer  |
| Struts Validator Not in Use               | No  | not relevant  |
| Subclass should override method           | yes | Enabled   |
| Synchronization On getClass Method        | Yes | Enabled   |
| Synchronization On Non Final Fields       | Yes | Enabled   |
| Synchronized In Loop                      | Yes | Enabled   |
|   | No  | "Methods should never be marked as synchronized."   |
| Synchronized Method                       |     |   |
| Tag Handler Field Not Cleared             | No  | not relevant  |
| Tag Handler Should Implement Release      | No  | not relevant  |
| Tainted Filter                            | No  | not relevant  |
| Tainted Internet Address                  | No  | not relevant  |
| Temporary Object Creation                 | Yes | Enabled   |
| Test Case Naming Convention               | No  | TBD   |
| Throw in Finally                          | Yes | Enabled   |
| Thrown Exceptions                         | Yes | Enabled   |
| toString() Method Usage                   | Yes | Enabled   |
| Transient Field in Non-Serializable Class | Yes | Enabled   |
| Type Declarations                         | Yes | Enabled   |
| Type Depth                                | Yes | Enabled   |
| Type Javadoc Conventions                  | Yes | Enabled   |
|   | No  | Should we enable this ? Or we can have eclipse 'sort members' action. ?                   |
| Type Member Ordering                      |     |   |
| Type Names Must Be Singular               | No  | Flags class names like Columns, Bytes.  |
| Type Parameter Naming Convention          | Yes | Enabled   |
| Unassigned Field                          | No  | reports too many false positives  |
| Undefined Message Key                     | No  | not relevant  |
| Undefined Placeholder                     | No  | not relevant  |
| Undefined Property                        | Yes | Enabled   |
| Unhashable class in hashed collection     | Yes | Enabled   |
| Unique Namespace per Schema               | No  | not relevant  |
| Unknown Cast                              | Yes | Enabled   |
| Unknown Component Type                    | No  | not relevant  |
| Unknown Renderer Type                     | No  | not relevant  |
| Unnecessary "instanceof" Test             | Yes | Enabled   |
| Unnecessary Catch Block                   | Yes | Enabled   |
| Unnecessary Default Constructor           | Yes | Enabled   |



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| Unnecessary Exceptions                             | No  | If a method throws an exception which is a subclass of the exception mentioned in the throws clause, this rule flags such cases. |
| Unnecessary Final Method                           | Yes | Enabled  |
| Unnecessary Import Declarations                    | Yes | Enabled  |
| Unnecessary Null Check                             | Yes | Enabled  |
| Unnecessary Override                               | Yes | Enabled  |
| Unnecessary Return                                 | Yes | Enabled  |
| Unnecessary Return Statement Parentheses           | No  | Conflicts with other rules.  |
| Unnecessary toString() Method Invocation           | Yes | Enabled  |
| Unnecessary Type Cast                              | Yes | Enabled  |
| Unregistered Validator                             | No  | not relevant   |
| Unsupported Clone                                  | Yes | Enabled  |
| Unused Assignment                                  | No  | Does't work correctly I think - I enabled this and got too many false violitions   |
| Unused Field                                       | Yes | Enabled  |
| Unused Label                                       | Yes | Enabled  |
| Unused Method                                      | Yes | Enabled  |
| Unused Return Value                                | No  | There are many cases where we don't want to use return value e.g. map.put() etc. should we enable this rule ?                    |
| Unused StringBuffer                                | yes | Enabled  |
| Unused StringBuilder                               | Yes | Enabled  |
| Unused Validation Form                             | No  | not relevant   |
| Unvalidated Action Field                           | No  | not relevant   |
| Unvalidated Action Form                            | No  | not relevant   |
| Unvalidated Action Form Field                      | No  | not relevant   |
| Usage Of Binary Comparison                         | Yes | Enabled  |
| Usage Of Static Calendar                           | Yes | Enabled  |
| Usage Of Static Date Format                        | Yes | Enabled  |
| Use "for" Loops Instead of "while" Loops           | No  | rule checks for the use of "while" loops rather than "for" loops, I think while loops are cleaner in some cases                  |
| Use "Nullable" Type for Identifier Properties      | No  | not relevant   |
| Use == to Compare With null                        | Yes | Enabled  |
| Use @After Annotation Rather than tearDown()       | Yes | Enabled  |
| Use @Before Annotation Rather than setUp()         | Yes | Enabled  |
| Use @RunWith and @SuiteClasses to build test suite | Yes | Enabled  |
| Use @Test Annotation for JUnit test                | Yes | Enabled  |
| Use a Valid Schema Namespace                       | No  | not relevant   |
| Use a Valid WSDL Namespace                         | No  | not relevant   |
| Use Action Interface                               | No  | not relevant   |

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|---|-----|---|
| Use Additional Attribute in <constructor-arg> Tag | No  | not relevant                                  |
| Use ApplicationContext to Assemble Beans          | No  | not relevant                                  |
| Use arraycopy() Rather Than a Loop                | Yes | Enabled                                       |
| Use Available Constants                           | Yes | Enabled                                       |
| Use Buffered IO                                   | Yes | Enabled                                       |
| Use Camel Case in Namespaces                      | No  | not relevant                                  |
| Use char Rather Than String                       | Yes | Enabled                                       |
| Use charAt() Rather Than startsWith()             | Yes | Enabled                                       |
| Use Compound Assignment                           | Yes | Enabled                                       |
| Use deep Arrays methods when necessary            | Yes | Enabled                                       |
| Use Domain-specific Terminology                   | No  | not relevant                                  |
| Use equals() Rather Than ==                       | Yes | Enabled                                       |
| Use equals() Rather Than equalsIgnoreCase()       | No  | We need equalsIgnoreCase() in some cases.     |
| Use Existing Global Forwards                      | Yes | Enabled                                       |
| Use ForwardAction Where Possible                  | No  | not relevant                                  |
| Use html:messages Instead of html:errors          | No  | not relevant                                  |
| Use idref Element                                 | No  | not relevant                                  |
| Use Interceptor to Track Duplicate Submits        | No  | not relevant                                  |
| Use Interfaces for Collection Attributes          | No  | not relevant                                  |
| Use Interfaces Only to Define Types               | No  | not relevant                                  |
| Use locale-specific methods                       | No  | not relevant                                  |
| Use NoSuchElementException in next()              | No  | not relevant                                  |
| Use of "instanceof" with "this"                   | Yes | Enabled                                       |
| Use Of Broken Or Risky Cryptographic Algorithm    | No  | not relevant                                  |
| Use of instanceof in Catch Block                  | Yes | Enabled                                       |
| Use of Random                                     | No  | Random is used only inside unit testing code. |
| Use of xs:any                                     | No  | not relevant                                  |
| Use Only Non-Final Persistent Classes             | No  | not relevant                                  |
| Use Only Static Inner Classes                     | No  | not relevant                                  |
| Use Or to Combine SWT Style Bits                  | No  | not relevant                                  |
| Use Privileged Code Sparingly                     | No  | not relevant                                  |
| Use Qualified Attributes                          | No  | not relevant                                  |
| Use Session-per-request Pattern                   | No  | not relevant                                  |
| Use Setter Injection                              | No  | not relevant                                  |
| Use Start Rather Than Run                         | Yes | Enabled                                       |
| Use StringBuffer length()                         | Yes | Enabled                                       |
| Use StrutsTestCase for Unit Testing               | No  | not relevant                                  |
| Use SuccessAction Where Possible                  | No  | not relevant                                  |
| Use Thread-safe Lazy Initialization               | Yes | Enabled                                       |
| Use Type for Constructor Argument Matching        | No  | not relevant                                  |

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| Use Type-Specific Names                      | No  | Mandates InputStream objects to have name like "in"                      |
| Use Valid SWT Styles                         | No  | not relevant   |
| Use Valid Type for Form-property             | No  | not relevant   |
| Use valueOf() to wrap primitives             | Yes | Enabled  |
| Use WSDL First approach                      | No  | not relevant   |
| Use XmlBeanFactory                           | No  | not relevant   |
| Validate XML                                 | Yes | Enabled  |
| Validation Method Naming Convention          | No  | not relevant   |
| Validation Not Enabled                       | No  | not relevant   |
| Validator Configuration File Does Not Exist  | No  | not relevant   |
| Validator Disabled                           | No  | not relevant   |
| Variable Declared Within a Loop              | No  | TBD  |
| Variable Has Null Value                      | No  | Taken care by JSR 305 annotations, which is a better way achieving this. |
| Variable Should Be Final                     | Yes | Enabled  |
| Variable Usage                               | Yes | Enabled  |
| Wait Inside While                            | Yes | Enabled  |
| Wait method invoked while two locks are held | Yes | Enabled  |
| wait() Invoked Instead of await()            | Yes | Enabled  |
| Weblogic Session ID Length                   | No  | not relevant   |
| White Space Before Property Name             | Yes | Enabled  |
| White Space Usage                            | No  | taken care by code formatter.  |
| Wrong Family Returned                        | No  | not relevant   |
| Wrong Integer Type Suffix                    | Yes | Enabled  |
| WSDL Must Specify ESB Endpoints              | No  | not relevant   |
| WSDL Namespace for Included Schemas          | No  | not relevant   |
| XSD File Naming Convention                   | No  | not relevant   |