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| HUSACCT Tool |
| HU Architecture Compliance Tool  16-05-2012 |
| Recognition White Box Test - Java |

1. Preperation for the Java Recognition Test (Java White-Box Test)

This tests uses a pre-defined source-code to check to correctness of the java-analyser. Implemented in the HUSACCT-tool. The following things have to be done, before or after performing this test.

### Loading the ‘Java Recognition Test’-application

1. Open Eclipse IDE. Create a new Java-project with name ‘*Java Recognition Test’*
2. Open your command prompt and ‘cd’ to until you are in the project folder.
3. Type the following commands now:
   1. git init <ENTER>
   2. git remote add origin [git@github.com:HUSACCT/HUSACCT-RecognitionTest.git](mailto:git@github.com:HUSACCT/HUSACCT-RecognitionTest.git) <ENTER>
   3. git pull origin master <ENTER>
   4. Go back to eclipse, select the project and click ‘project->refresh’
   5. The Application, including this document and a result-folder, should now be loaded successfully.

### Publishing a test-result

One important thing to always keep in mind: Do not overwrite the file ‘Recognition Test Java.docx’, but save your results in the ‘results’-folder in the java-project. The name for your document should consist of the following parts: ‘Results <Day>-<Month>-<Year>.docx’.

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| White Box Tests & Results | | | | | |
| **#** | **Type** | **Expected From** | **Expected To** | **√/×** | **Remark** |
| 1.1 | Annotation  (annotation) | annotation.a.SamePackage | annotation.a.TheAnnotation | **√** |  |
| 1.2 | annotation.b.OtherPackageA | **√** |  |
| 1.3 | annotation.b.OtherPackageB | **√** |  |
| 1.4 | annotation.b.OtherPackageC | **×** | Complete type-declaration failure |
|  | | | | | |
| 2.1 | Exception  (exception) | exception.a.SamePackageA | exception.a.TheException | **×** |  |
| 2.2 | exception.a.SamePackageB | **×** |  |
| 2.3 | exception.a.SamePackageC | **×** |  |
| 2.4 | exception.b.OtherPackageA | **×** |  |
| 2.5 | exception.b.OtherPackageB | **×** |  |
| 2.6 | exception.b.OtherPackageC | **×** |  |
| 2.7 | exception.b.OtherPackageD | **×** |  |
| 2.8 | exception.b.OtherPackageE | **×** |  |
| 2.9 | exception.b.OtherPackageF | **×** |  |
| 2.10 | exception.b.OtherPackageG | **×** |  |
| 2.11 | exception.b.OtherPackageH | **×** |  |
| 2.12 | exception.b.OtherPackageI | **×** |  |
| 2.13 | exception.b.OtherPackageJ | **×** |  |
|  | | | | | |
| 3.1 | Implements  (implements) | implement.a.SamePackage | implement.a.TheInterface | **√** |  |
| 3.2 | implement.b.OtherPackagaA | **√** |  |
| 3.3 | implement.b.OtherPackageB | **√** |  |
| 3.4 | implement.b.OtherPackageC | **×** | Complete type-declaration failure |
|  | | | | | |
| 4.1 | Extend Concrete  (extendsConcrete) | exentdsconcrete.a.SamePackage | extendsconcrete.a.ConreteClass | **√** |  |
| 4.2 | extendsconcrete.b.OtherPackageA | **√** |  |
| 4.3 | extendsconcrete.b.OtherPackageB | **√** |  |
| 4.4 | extendsconcrete.b.OtherPackageC | **×** | Complete type-declaration failure |
|  | | | | | |
| 5.1 | Extend Abstract  (extendsAbtract) | extendsabstract.a.SamePackage | extendsabstract.a.AbstractClass | **√** |  |
| 5.2 | extendsAbstract.a.OtherPackageA | **√** |  |
| 5.3 | extendsAbstract.a.OtherPackageB | **√** |  |
| 5.4 | extendsAbstract.a.OtherPackageC | **×** | Complete type-declaration failure |
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| White Box Tests & Results (continued) | | | | | |
| **#** | **Type** | **Expected From** | **Expected To** | **√/×** | **Remark** |
| 6.1 | Parameter of a type  (declaration) | parameters.a.SamePackage | parameters.a.TheType | **√** |  |
| 6.2 | parameters.b.OtherPackageA | **√** |  |
| 6.3 | parameters.b.OtherPackageB | **√** |  |
| 6.4 | parameters.b.OtherPackageC | **×** | Complete type-declaration failure |
|  | | | | | |
| 7.1 | Attribute of type  (declaration) | attrdeclaration.a.SamePackage | attrdeclaration.a.TheType | **√** |  |
| 7.2 | attrdeclaration.b.OtherPackageA | **√** |  |
| 7.3 | attrdeclaration.b.OtherPackageB | **√** |  |
| 7.4 | attrdeclaration.b.OtherPackageC | **×** | Complete type-declaration failure |
|  | | | | | |
| 8.1. | Access property or field  (accesofpropertyorfield) | accessfield.a.SamePackageA | accessfield.a.TheOwner | **×** | Is the acces of a property or field not called ?  Please check the source and compare were it works and were not. |
| 8.2 | accessfield.a.SamePackageB | **×** |
| 8.3 | accessfield.b.OtherPackageA | **×** |
| 8.4 | accessfield.b.OtherPackageB | **×** |
| 8.5 | accessfield.b.OtherPackageC | **×** |
|  | | | | | |
| 9.1 | Local Variable (Declaration) | localvariables.a.SamePackage | localvariables.a.TheType | **√** |  |
| 9.2 | localvariables.b.OtherPackageA | **√** |  |
| 9.3 | localvariables.b.OtherPackageB | **√** |  |
| 9.4 | localvariables.b.OtherPackageC | **×** | Complete type-declaration failure |
|  | | | | | |
| 10.1 | Loop Arguments  (declaration) | loops.a.SamePackage | loops.a.TheType | **×** |  |
| 10.2 | loops.b.OtherPackageA | **×** |  |
| 10.3 | loops.b.OtherPackageB | **×** |  |
| 10.4 | loops.b.OtherPackageC | **×** |  |
|  | | | | | |
| 11.1 | Constructor Invocation  (invocConstructor) | invocconstructor.a.SamePackage | invocconstructor.a.TheType | **√** |  |
| 11.2 | invocconstructor.b.OtherPackageA | **√** |  |
| 11.3 | invocconstructor.b.OtherPackageB | **√** |  |
| 11.4 | invocconstructor.b.OtherPackageC | **×** | Complete type-declaration failure |
|  | | | | | |

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| White Box Tests & Results (continued) | | | | | |
| **#** | **Type** | **Expected From** | **Expected To** | **√/×** | **Remark** |
| 12.1 | Method Invocation  (invocMethod) | invocmethod.a.SamePackageA | invocmethod.a.TheType | **√** |  |
| 12.2 | invocmethod.a.SamePackageB | **√** |  |
| 12.3 | invocMethod.b.OtherPackageA | **√** |  |
| 12.4 | invocMethod.b.OtherPackageB | **√** |  |
| 12.5 | invocMethod.b.OtherPackageC | **×** | Complete type-declaration failure |
| 12.6 | invocMethod.b.OtherPackageD | **√** |  |
| 12.7 | invocMethod.b.OtherPackageE | **√** |  |
| 12.8 | invocMethod.b.OtherPackageF | **×** | Complete type-declaration failure |
|  | | | | | |
| 13.1 | Enumeration  (accesofpropertyorfield) | enumeration.a.SamePackage | enumeration.a.TheEnum | **×** | Enumeration not recognized in analyser |
| 13.2 | enumeration.b.OtherPackageA | **×** |
| 13.3 | enumeration.b.OtherPackageB | **×** |
| 13.4 | enumeration.b.OtherPackageC | **×** |
|  | | | | | |

Result

Een ding dat altijd naar voren kwam, was een bug :

- Het volgende wordt niet goed herkend/geset : package.package.Class a = new package.package.Class a ;

- Enumerations worden niet herkend

- Exceptions worden niet aangeroepen.

- Acces of a property of field werkt niet goed.