

Appendix B

Information Systems Development Methodology

for the

Environmental Screening Tool

Appendix B

- EST Class Model Introduction
- EST Class Model (07/31/2010)

Appendix B Class Model Diagram (Updated 6/30/2010)

B.1 EST Class Model Introduction (Updated 6/30/2010)

The Class Model diagrams for the Environmental Screening Tool (EST) (referred to as the Class Model in the ISDM requirements) follow the Unified Modeling Language (UML) methodology. The Class Model diagrams include classes and relationships between classes for the Secure Site and the Public Access Site.

The Class Model diagrams included in this documentation were generated using Visual Paradigm for UML 7.2 Modeler Edition. The descriptions of the classes and references in Sections B.1, B.2, and B.3, respectively, are based on the Help documentation for Visual Paradigm for UML 7.2 Modeler Edition. To view the Class Model diagrams for the EST Secure Site and Public Access Site, open the PDF files named EST CLASS DIAGRAM 2010 and ETDM CLASS PUB 2010, respectively.

B.1.1 Classes and Interfaces

The classes and interfaces are represented on a diagram as rectangles containing the name and properties of the Java class.

B.1.2 Composition Relationships

The composition relationships are represented on the diagram as a solid line with an open arrowhead in the direction of the reference. References are derived from property declarations in the class that is the source of the reference.

B.1.3 Inheritance Relationships

The inheritance relationship can be either an “extends” relationship or an “implements” relationship between classes. Extends relationships are represented on the diagram as a solid line with an empty arrowhead pointing towards the extended class or interface. Implements relationships are represented on the diagram as a dashed line with an empty arrowhead pointing towards the implemented Java interface.

B.1.4 Cardinality of Relationships

Cardinality of composition and inheritance relationships is shown by the notations at the ends of the lines representing the relationship. The different types of cardinality are:

- (Class A) to * (Class B)
This cardinality represents that Class A relates to zero or more instances of Class B.
- (Class A) to 1 (Class B)
This cardinality represents that Class A is related to exactly one instance of Class B.

An example of the format and nomenclature used in the Class diagram is provided below.

B.2 EST Class Model

To view the Class Model diagrams for the EST Secure Site and Public Access Site, open the PDF files named EST CLASS DIAGRAM 2010 and ETDM CLASS PUB 2010, respectively.





