Product Description for Saxon-HE (Home Edition)

Version 9.6 released Oct 2014

This document lists the features provided by Saxon 9.6 open source Home Edition (Saxon-HE).

This document does not form part of any contract unless expressly incorporated.

Language Support

1. XSLT (Transformation Processing)

1.1 XSLT 2.0 (Basic)

Provides a basic XSLT 2.0 processor as defined in section 21 of the XSLT 2.0 Recommendation: it is a conformance level that includes all features of the language other than those that involve schema processing.

For more details see: XSLT 2.0 conformance.

Relevant W3C Specification: XSLT 2.0 Recommendation (23 January 2007).

2. XPath

2.1 XPath 2.0 (Basic)

Provides all XPath 2.0 features other than schema-awareness.

For more details see: XPath 2.0 conformance.

Relevant W3C Specification: XPath 2.0 Recommendation (14 December 2010).

2.2 XPath 3.0 (Basic)

Provides all XPath 3.0 features other than schema-awareness and higher-order functions.

For more details see: XPath 3.0 conformance.

Relevant W3C Specification: XPath 3.0 Recommendation (08 April 2014).

3. XQuery

3.1 XQuery 1.0 (Basic)

Provides the following features, as defined in section 5 of the XQuery 1.0 specification: Minimal Conformance; Full Axis Feature; Module Feature; and Serialization Feature.

For more details see: XQuery 1.0 conformance.

Relevant W3C Specification: XQuery 1.0 Recommendation (14 December 2010).

3.2 XQuery 3.0 (Basic)

Provides the following features, as defined in section 5 of the XQuery 3.0 specification: Minimal Conformance (including try/catch and "group-by"); Module Feature; and Serialization Feature.

For more details see: XQuery 3.0 conformance.

Relevant W3C Specification: XQuery 3.0 Recommendation (08 April 2014).

Performance Features

4. Optimizer (Basic)

The Basic optimizer provided with all Saxon editions provides a wide range of static and dynamic optimizations including full pipelining of list operations, lazy evaluation of variables, elimination of redundant sorting operations, etc.

5. Reading W3C schemas and DTDs

The W3C web server now routinely rejects requests for commonly-referenced files such as the DTD for XHTML, causing parsing failures. In response to this, Saxon now includes copies of these documents within the issued JAR file, and recognizes requests for these documents, satisfying the request using the local copy.

Extensibility

6. Extensibility using custom classes

Ability to write extension functions (for use in XSLT, XQuery, or XPath) by implementing a Saxon-defined interface and registering the implementation with the Saxon Configuration.

For more details see: Extensibility.

Localization

7. Localization (Basic)

All the interfaces for developers are in English, but there is some localization support in transformation to enable dates and numbers to be formatted and collations performed in other languages (so end-user output can be localized, but developer output cannot).

For more details see: Unicode collation, Localizing numbers and dates.

Interfaces and APIs

8. JAXP API

Implementations of the standard JAXP interfaces for XSLT transformation, XPath evaluation, and XML Schema validation. Applies to the Java platform only.

For more details see: JAXP API conformance.

9. S9API API

Saxon's native interface for processing XSLT, XQuery, XPath, and XML Schema. Available in slightly different forms on the Java and .NET platforms.

10. Support for DOM

Ability to use a DOM (Document Object Model) for the input and output of transformations and queries. On the .NET platform this includes the System.XML DOM classes.

For more details see: Object models.

11. Support for JDOM, JDOM2, AXIOM, DOM4J, and XOM (not included, but open source)

Although the code for these interfaces does not come packaged with the Saxon-HE download, it is open source and can be compiled to work with Saxon-HE. This provides the ability to use a JDOM, JDOM2, AXIOM, DOM4J, and XOM for the input or output of transformations and queries. Applies to the Java platform only.

For more details see: Object models.

12. XQJ API (not included, but open source)

Implementations of the standard XQJ interfaces for XQuery processing have been removed from the Saxon-HE download because the Oracle specification license is not open source, but they are available on request. Applies to the Java platform only.

For more details see: XQJ API conformance.