

# Tools

## 1. Provided Tools

A number of very simple "tools" (really examples) are provided with the XML Security library. These can be used either to provide examples of how to use the library or as simple utilities in their own right for performing canonicalisation and signature functions.

The tools are :

- *c14n* - A tool to output a Canonicalised version of an input document.
- *checksig* - A tool to validate a signature in an XML input document
- *templatesign* - A tool to sign an XML document that already has the <Signature> structure installed, but needs the references hashed and the SignatureValue set.
- *txfmout* - A tool to take an XML Signature and output the fully transformed references to stdout or a nominated file
- *threadTest* - A Windows only program that runs up a number of threads which simultaneously sign and validate documents. A number of documents are modified in between (to cause the signature validation to fail).
- *siginf* - A tool to read in an XML Signature and dump various details about the signature and references to the terminal
- *cipher* - A tool to encrypt and decrypt XML documents.

The tools can all be run with no command line arguments to see their parameters.

One extra "tool" is provided - *xtest*. This is really a testing program that exercises various capabilities of the library and compares the results with known good results.