

Testing XML Instances Generators

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XML has become the standard language for the exchange of data between digital and web applications. As a result of XMLs prominence it is important to test web applications that rely on XML, reducing security threats and bug occurrences during the data exchange process. Existing tools such as ToXgene (Tox XML instance Generator), TAXI (Testing by Automatically generated XML Instances) and WSDL2SUITE can be used to automatically generate XML instances from an XML schema, and therefore lower the costs associated with software testing and maintenance. Each of the three tools were studied and evaluated for efficacy by applying the generators to over 12,000 unique XSD extracted from external real-world WSDL documents. The XML generators were examined to determine the coverage of the grammatical space and their adequacy to produce valid XML instances from the XSDs. A summary of the capabilities and advantages and disadvantages for each XML instance generation tool is presented.