Table1 The original class XMLSerializer in Xerces

| Original Class    XMLSerializer | |
|---|---|
| Attributes | Methods |
| DEBUG | setOutputFormat(OutputFormat) |
| fNSBinder | startElement(String, String, String, Attributes) |
| fLocalNSBinder | endElement(String, String, String) |
| SymbolTable | endElementIO(String, String, String) |
| fSymbolTable | startElement(String, AttributeList) |
| fEmptySymbol | endElement(String) |
| fXmlSymbol | startDocument(String) |
| fXmlnsSymbol | serializeElement(Element) |
| fDOML1 | printNamespaceAttr(String, String) |
| fNamespaceCounter | printAttribute(String, String, boolean) |
| fPreserveSpace | getEntityRef(int) |
| fEncoding | extractNamespaces(Attributes) |
| | checkAllFeatures() |
| | setFeature(String, boolean) |
| | canSetFeature(String, boolean) |
| | getFeature(String) |
| | getEncoding() |
| | setEncoding(String) |
| | getNewLine() |
| | setNewLine(String) |
| | getErrorHandler() |
| | setErrorHandler(DOMErrorHandler) |
| | writeNode(OutputStream, Node) |
| | writeToString(Node) |
| | reset() |

Table2 The new classes extracted by developers

| Class Extracted by the Developers - 1 | |
|---|---|
| Attributes | Methods |
| fEncoding | setFeature(String, boolean) |
| | canSetFeature(String, boolean) |
| | getFeature(String) |
| | getEncoding() |
| | setEncoding(String) |
| | getErrorHandler() |
| | setErrorHandler(DOMErrorHandler) |
| | writeNode(OutputStream, Node) |
| | writeToString(Node) |
| | setNewLine(String) |
| | getNewLine() |
| | reset() |
| | checkAllFeatures() |

| Class Extracted by the Developers - 2 | |
|---|---|
| Attributes | Methods |
| DEBUG | setOutputFormat(OutputFormat) |
| fNSBinder | startElement(String, String, String, Attributes) |
| fLocalNSBinder | endElement(String) |
| fSymbolTable | endElementIO(String, String, String) |
| fEmptySymbol | startElement(String, AttributeList) |
| fXmlSymbol | endElement(String, String, String) |
| fXmlnsSymbol | startDocument(String) |
| fDOML1 | serializeElement(Element) |
| fNamespaceCounter | printNamespaceAttr(String, String) |
| fPreserveSpace | printAttribute(String, String, boolean) |
| | getEntityRef(int) |
| | extractNamespaces(Attributes) |

Table3 The new classes extracted by our approach

| Class Extracted our approach - 1 | |
|---|---|
| Attributes | Methods |
| DEBUG | endElement(String) |
| fNSBinder | endElement(String, String, String) |
| fLocalNSBinder | endElementIO(String, String, String) |
| fSymbolTable | extractNamespaces(Attributes) |
| fEmptySymbol | getEntityRef(int) |
| fXmlSymbol | printAttribute(String, String, boolean, Attr) |
| fXmlnsSymbol | printNamespaceAttr(String, String) |
| fDOML1 | serializeElement(Element) |
| fNamespaceCounter | startDocument(String) |
| fPreserveSpace | startElement(String, String, String, Attributes) |
| | startElement(String, AttributeList) |
| **Class Extracted our approach - 2** | |
| Attributes | Methods |
| fEncoding | setOutputFormat(OutputFormat) |
| | setFeature(String, boolean) |
| | canSetFeature(String, boolean) |
| | getFeature(String) |
| | getEncoding() |
| | setEncoding(String) |
| | getErrorHandler() |
| | setErrorHandler(DOMErrorHandler) |
| | writeNode(OutputStream, Node) |
| | writeToString(Node) |
| | setNewLine(String) |
| | getNewLine() |
| | reset() |
| | checkAllFeatures() |