

The gSOAP DOM Parser (Beta)

Robert van Engelen
Genivia inc.
engelen@genivia.com

January 5, 2004

Contents

1	Introduction	2
2	Example 1: Extracting Application Data From an XML Document	2
3	Example 2: Embedding Application Data in XML Documents	7
4	Example 3: SOAP/XML	9
5	Controlling the DOM Parser with Flags	10
6	DOM Class	11
6.1	DOM Constructors	12
6.2	DOM Inspection	13
6.3	DOM Iterators	13
7	XML Parsing and Streams	14
8	Planned Features	14

Copyright (C) 2000-2003 Robert A. van Engelen, Genivia inc. All Rights Reserved.


```
nillable="true"/>
    <element name="manufacturer" type="xsd:string" minOccurs="0" max-
Occurs="1" nillable="true"/>
    <element name="SKU" type="xsd:int" minOccurs="1" maxOccurs="1"/>
    <element name="price" type="xsd:double" minOccurs="1" maxOccurs="1"/>
    <element name="description" type="xsd:anyType" minOccurs="0" max-
Occurs="1" nillable="true"/>
  </sequence>
  <attribute name="Id" type="xsd:ID" use="optional"/>
</complexType>
</schema>
```

The class ns_.

application-specific format, i.e. as `ns_product` class instances. The following code parses the document from the standard input stream and then iterates over the DOM thereby printing the price of the deserialized `ns_product` instances:

```
#include "soapH.h"
#include <iostream.h>
```

<manufacturer>Sesame Street</manufacturer>

This assumes that all `<v:value>`

```
free(document.soap); // free the soap environment  
...
```

In this example the input-mode flag SOAP_DOM_TREE forces the parser to construct a DOM only

f "SOAP-ENC", "http://schemas.xmlsoap.org/soap/encoding/" g ,
 f "xsi", "http://www.w3.org/2001/XMLSchema-instance"

4 Example 3: SOAP/XML

The gSOAP DOM parser can be used to implement SOAP/XML clients and services that support SOAP document encoding. The following gSOAP header file uses the `xsd:anyType` (the external DOM XML serializer) to exchange generic XML documents as SOAP/XML service parameters:

```
#import "dom++.h"
//gsoap ns service name: docu
//gsoap ns service namespace: http://domain/services/docu.wsdl
//gsoap ns service encoding: literal
//gsoap ns schema namespace: urn:docu
int ns
```

```
cout << response << endl;  
for (soap_dom_iterator walker = response.find(SOAP_TYPE_xsd_
```

6 DOM Class

```
soap_dom_attribute &set(const char *data);
```


soap_dom_element iterator methods

soap_dom_iterator begin()

Iterates over all DOM nodes

soap_dom_iterator end()

Points past last node (empty iterator)

soap_dom_iterator find(**const char** *nstr, **const char** *name)

Iterates over nodes with namespace name (URI) and element tag name. The namespace and el-