

US 7,293,228 B1

127

128

&gt;

That is, it contains a required title element, followed by unstructured content. It has a required lbl attribute and a required id attribute.

The insert-date attribute should be used to insert the date YYYYMMDD that the SCHEDULE was inserted. The insert-leg should be used to insert the ID of the legislation that inserted the SCHEDULE.

The repeal-date attribute should be used to insert the date YYYYMMDD that the SCHEDULE was repealed. The repeal-leg should be used to insert the ID of the legislation that repealed the SCHEDULE.

The amend-date attribute should be used to insert the date YYYYMMDD that the SCHEDULE was amended. The amend-leg should be used to insert the ID of the legislation that amended the SCHEDULE.

#### Examples

##### 1979 No. 141 The charge to income tax - SCHEDULE 1

##### Income Tax

1. Income tax shall be charged...

```
<schedule lbl = "1" id="CWACT-1979141-SCH-1">
```

```
<title>Income tax</>
```

```
<p>Income tax shall be charged... </>.
```

*The title gets marked up as Level "Heading Level 2". Dates get treated the same way as in Regs DTD Elements. See there for details.*

#### FORM

```
<!ELEMENT form -- (title, formreg, front, back?) >
```

```
<!ATTLIST form %reqlbl;
```

```
%reqid;>
```

Each form has a title, regulation, a front and an optional back. Each has a required lbl attribute and a required ID.

#### Example

FORM A<

Regulation 7<

(Front of Form)<

COMMONWEALTH OF AUSTRALIA<

Trade Practices Act 1974-Sub-section 88 (1)<

EXCLUSIONARY PROVISIONS:<

APPLICATION FOR AUTHORIZATION<

To the Trade Practices Commission: Application is hereby made under sub-section 88 (1) of the Trade

(Back of Form)<

DIRECTIONS<

1. Where there is insufficient space on this form to furnish the required information, the information is to be shown on separate sheets, numbered consecutively and signed by or on behalf of the applicant.

<FORM lbl="a" ID="CWACTION-19790141-FORM-A">

<FORMREG>Regulation 7</FORMREG>

<FRONT>

<AS IS>

COMMONWEALTH OF AUSTRALIA<

Trade Practices Act 1974-Sub-section 88 (1)<

EXCLUSIONARY PROVISIONS:<

APPLICATION FOR AUTHORIZATION<

To the Trade Practices Commission: Application is hereby made under sub-section 88 (1) of the Trade

</ASIS>

</FRONT>

<BACK>

<ASIS>

DIRECTIONS<

1. Where there is insufficient space on this form to furnish the required information, the information is to be shown on separate sheets, numbered consecutively and signed by or on behalf of the applicant.

</ASIS>

</BACK>

</FORM>

*Forms get marked up with a Paragraph Style 'Forms'. The markup of 'Front' and 'Back' gets inserted as hidden text (hidden text is visible on the screen but doesn't show when the Form gets printed.*

#### **FORM ELEMENTS**

---

##### **FORMREG**

<!ELEMENT formreg -- (#PCDATA) >

see above example

##### **FRONT**

<!ELEMENT front -- (asis) >

see above example

##### **BACK**

<!ELEMENT back -- (asis) >

see above example

##### **ASIS**

<!ELEMENT asis -- (#PCDATA) >

date is displayed as-is

see above example

### **HEADER ELEMENTS**

---

#### **HEADER**

<!ELEMENT header -- (scope?, updated?)>

#### **SCOPE**

<!ELEMENT scope -- (%text;) >

#### **UPDATED**

<!ELEMENT updated -- (%text;) >

### **NOTE ELEMENTS**

---

#### **NOTES**

<!ELEMENT notes - O (note+) >

List of notes at the start of an act

#### **NOTE**

<!ELEMENT note -- (%/plevel;) >

<!ATTLIST note id ID #REQUIRED>

A single note

*Forms get marked up with a Paragraph Style 'Forms'. The markup of 'Front' and 'Back' gets inserted as hidden text (hidden text is visible on the screen but doesn't show when the Form gets printed.*

### **STRUCTURAL ELEMENTS**

---

#### **TITLE**

A generic title, which may occur in several different contexts.

*Covered in Acts DTD Elements, Regs DTD Elements and so on.*

### **INLINE ELEMENTS**

---

#### **BOLD**

Used to mark any inline text which is set in a bold face other than a title or a label. It may contain text or any inline elements other than <bold>.

It has no attributes.

#### **ILEQN**

An inline equation. This is a mathematical equation which is embedded in a line of text characters or other inline elements. See the attached description of equations for further details.

#### **ITAL**

Used to mark any inline text which is set in a italic face other than a title or a label. It may contain text or any inline elements other than <italic>.

It has no attributes.

#### **QUOTE**

A sequence of text characters or inline elements surrounded by single or double paired quotation marks. The quotation mark characters must not be entered as text characters or entity references as they will be generated automatically.

#### **SUBSCR**

A Subscript (inferior).

#### **SUPER**

A superscript (superior).

*Brought over from SGML to Folio Views with no changes.*

#### **CROSS REFERENCES**

#### **NOTEREF**

A reference to a NOTE element normally used in a TITLE element

*Implemented as a popup link.*

#### **TEMPREF**

A reference to a piece of legislation where the ID is not known. The tempref element will be converted to an XREF element at a later date (when the ID is known).

*Not converted.*

#### **RNGREF**

A cross reference to a sequential range of targets, e.g. see Sections 3 to 7.

It has two required attributes, startref and endref. Startref is the id of the first of the targets referenced and endref is the id of the last target referenced. For a description of id strings, see the description of the xref element.

*Converted as a Query Link.*

#### **XREF**

A cross reference to a single target. It has a single attribute, ref, which must contain the id string of the target of the reference. Ids are not being entered on elements during keying, but will be generated automatically from the lbl attribute of elements.

However, for xrefs it is necessary to work out what the id string of the target will be.

The format of id strings is described below:

*Converted as a jumplink.*

#### **ID Strings**

Cross references to sections of Acts and Act Schedules should be marked up using the xref element as described above.

\*\*\*\*\*

Id strings are made up of four sequential fields separated by a "-" (dash) character as follows

field1-field2-field3-field4

field 1 is the type of document which is being referenced. The current valid value is ACT.

field2 is an abbreviated form of the year and number of the Act, e.g. 19880001 is 1988 No. 1.

field3 identifies the type of object being referenced. Valid values are:

ORD order

DIV division

SCH schedule in an Act

SEC section in an Act

CH chapter in an Act

PT part in an Act

NOTEa note

field4 is the identifier of the element being referenced, which is formed by concatenating the values of the lbl attributes of the referenced element and its ancestor elements, separated by a "." (point) character. e.g. 1 or 1.1 or 1.1.a or 1.1.a.iv

#### Examples

```
<section lbl="1" <!-- id is ACT-19790141-SEC-1 -->
```

```
<title>The charge to income tax.</>
```

```
<list>
```

```
<li lbl="1">
```

```
<p>Income tax shall be charged. . .</>
```

*Implemented us jumpdestination.*

### BLOCK LEVEL ELEMENTS

#### DPEQN

A display equation. This is a mathematical equation which is set on one or more lines by itself.

See the attached description of equations for further details.

It has no attributes.

It has no attributes.

#### LIST

A list of related lines of text which are not sub, s-sub or ss-sub elements.

#### LI

An item in a list. This is a single line of text within a list.

It has a single attribute, marker, which has allowed values of bullet, dash or none, with a default of none. If a marker character precedes the list item then the relevant value should be entered for the attribute. The marker character should not be entered as text. If any marker character other than a bullet or dash is found, contact SGMLSE for a change to the DTD.

#### P

A single line of text.

#### BLOCKQUOTE

A non-inline quote. The quotation mark characters must not be entered as text characters or entity references as they will be generated automatically

#### TBLBLK

A container element for a table which has a title. It contains a required title element followed by a single table.

It has no attributes.

*The above elements get implemented either without conversion or using paragraph styles.*

### TABLE ELEMENTS

#### General

Arbortext tables expressed in tagged ASCII form must follow this basic structure:

```
<table>
```

```

<rowrule>
for each row
{
    <tablerow>
    <cell rule>
    for each column
    {
        <tablecell>text</tablecell>
        <cellrule>
    }
    </tablerow>
</rowrule>
}
</table>

```

**TABLE**

The <table> tag has three required attributes. They must be specified correctly or the table will not be handled properly.

**ncols=NUMBER** The number of columns in the table. This value **MUST** agree with the number of columns expressed by the required **cwl** attribute.

**Wdm=(25|50|75|100)** The numbers indicate the width of the table as a percentage of the page width.

**cwl=LIST** where LIST is a list of integers each separated by a colon. Each integer represents the relative width of a column.

**Example**

A four column table which is the full width of the page. The second and third columns are twice the width of the first column, and the fourth column is three times the width of the first:

```
<table ncols="4" wdm="100" cwl="1:2:2:3">
```

or, equivalently,

```
<table ncols="4" wdm="100" cwl="5:10:10:15">
```

**CELLRULE**

Empty element. Specifies a vertical rule. It has a single attribute, **rtv**, which specifies the type of rule. Valid values for **rtv** are:

"." (point) for a blank rule,

"-" (dash) for a single rule,

"=" (equals) for a double rule,

"+" (plus) for a bold rule.

**Example**

```
<cellrule rty=".">
```

for a blank rule, or

```
<cellrule rty="-">
```

for a single rule.

### **ROWRULE**

Empty element. Specifies a sequence of horizontal rules, one per cell in the row. It has a single attribute, `rtl`, which is a colon-delimited list of rule type specifiers. There must be one rule type specifier for each cell in the row. The valid specifiers are as for `cellrule` above.

#### **Example**

For a four-column table

```
<rowrule rtl=":..:~:">
```

would draw a horizontal rule above cells one and four.

### **TABLEROW**

Specifies a row in the table. It has a single attribute, `hdr`, which specifies whether or not the row is a header row in a table which will be repeated over page breaks. The only valid value is "1"(one), which indicates that the row is a header row. An omitted value for `hdr` indicates that the row is not a header row. A value is only valid on the first `<tablerow>` in the table.

#### **Example**

```
<tablerow hdr="1">
```

indicates that the row is a header row (iff the `<tablerow>` is the first in the table, else it will generate an error).

```
<tablerow>
```

indicates that the row is not a header row if the `<tablerow>` is the first in the table.

### **TABLECELL**

Indicates a cell in a row in a table. It has four optional attributes:

`chj = (b|l|r|c)` Horizontal justification for that cell.

`b` for both right and left justified,

`l` for flush left,

`r` for flush right,

`c` for centred.

Default: left justified

`cvj = (t|c|b)` Vertical justification for that cell.

`t` for top justified,

`c` for centred, or

`b` for bottom justified.

Default: top justified

`spn = INTEGER` For horizontally spanned columns. `VAL` is a whole number representing how many columns are spanned. Note that for horizontal spans, the text appears in the LEFTMOST cell in the span, and all other cells in the span should be void of text.

Default: 1

vspn=INTEGER For vertically spanned rows. VAL is a whole number representing how many rows are spanned. Note that for vertical spans, the text appears in the LOWEST cell in the span and all other cells in the span should be void of text.

Default: 1

#### Arbortext table example

foo	fum	
		fee
spanned		ugh

```

<tbl>
<table wdm="100" cw="3:4:3">
<rowrule rtl=":-:-">
<tablerow hdr="1">
<cellrule rty="-">
<tablecell>foo</tablecell>
<cellrule rty="-">
<tablecell chj="c">fum</tablecell>
<cellrule rty="-">
<tablecell chj="r" cvj="b">fee</tablecell>
<cellrule rty="-">
</tablerow>
<rowrule rtl=":-:-">
<tablerow>
<cellrule rty="-">
<tablecell spn="2" chj="c">spanned</tablecell>
<cellrule rty="-">
<tablecell chj="c">ugh</tablecell>
<cellrule rty="-">
</tablerow>
<rowrule rtl=":-:-">
</table>
</tbl>

```

Tables get converted to Microsoft Word tables and then converted into Folio Views.

#### EQUATION ELEMENTS

##### General

This maths DTD is a subset of the Arbortext maths DTD, which itself is derived from the AAP maths DTD.



In maths mode, all spaces are ignored (except in a <phr> element as described below). Correct spacing is handled automatically.

All alphabetical characters and symbols are treated as variables and set in italic face, unless they occur within <phr>, <rm> or <rf> elements.

All numeric characters and operators are set in roman face, unless they occur within an <it> element.

Greek symbols should be entered using the <g> element rather than entity references. E.g. <g>a</g> produces alpha, <g>b</g> beta, etc. Any entity references for Greek characters which appear in equations will be flagged as errors by the parsing program.

**B**

Bold text in an equation.

**DE**

Denominator of a fraction.

**F**

Inline equation.

**FD**

Display equation.

**FEN**

Fence. A pair of bracketed delimiters. The attribute lp (left post) defines the type of the left delimiter as below, and the following element rp (right post) defines the type of the right delimiter.

```
<!ATTLIST fen lp (par|sqb|cub|ang|vb) vb --
      par left parenthesis (
      sqb left square bracket [
      cub left curly brace {
      ang left angle bracket <
      vb left vertical bar |
```

-->

**FR**

Fraction.

**G**

Greek character or characters. Valid characters are:

char equivalent entity

a alpha

b beta

c chi

d delta

D Delta

e epsilon

3 epsiv

4 phiv

f	phis
F	Phi
g	gamma
G	Gamma
h	eta
i	iota
j	thetav
k	kappa
l	lambda
L	Lambda
m	mu
n	nu
p	pi
2	piv
P	Pi
q	thetas
Q	Theta
r	rho
s	sigma
S	Sigma
9	rhov
t	tau
u	upsilon
U	Upsilon
v	sigmav
w	omega
W	Omega
x	xi
X	Xi
y	psi
Y	Psi
z	zeta

**INF**

Inferior. Subscript in an equation.

**IT**

Italic text in an equation.

**NU**

Numerator of a fraction.

**OVL**

Overline.

**PHR**

Phrase. In a phrase all characters are set in roman face and keyed space characters are preserved. A phrase is essentially a temporary escape out of maths mode back into normal text mode.

**RAD**

Radical or root. Contains a radicand (<rcd>), which is the constructs which appear beneath the top horizontal bar, and an optional radix (rdx), which is the power of the root (e.g. square, cube, 4, etc.).

**RCD**

Radicand. The content of a root construct.

**RDX**

Radix. The power of a root.

**RF**

Roman Function. A function name set in roman face, such as log, sin, cos, lim, arg, etc. It differs from the <rm> element in that preceding and following space characters are generated to separate it from surrounding characters.

**RM**

Roman face. Used to force an alpha character to be displayed in normal face rather than be treated as a variable and displayed in italic face.

**RP**

Right delimiter of a fence. It has a single attribute, post, which defines the type of the delimiter. Valid values are the same as for the lp attribute of the <fen> element, except that they specify the right hand match for the relevant left post.

**SUP**

Superior. A superscript in an equation.

**UNL**

Underline.

**Arbortext equation examples**

... by multiplying by the fraction -

A

B

where -

<p>... by multiplying by the fraction -</p>

<math display="block">\frac{A}{B}

<p>where -</p>

... by the formula -

gross taxable income

- net assets

<p> . . . by the formula -</>

<math display="block">\frac{\text{gross taxable income}}{\text{net assets}}

*Equations get converted to Microsoft Word equations and then converted into Folio Views.*

*Alternatively equations get converted to images and added to Folio Views as images.*

**APPENDIX E**

<!SGML "ISO 8879:1986"

--

ArborText's default SGML declaration, modified to allow longer id/idrefs, and to use a number of special characters within them.

--

CHARSET

BASESET "ISO 646-1983//CHARSET

International Reference Version (IRV)//ESC 2/5 4/0"

DESCSET

|     |     |    |                         |
|-----|-----|----|-------------------------|
|     | 0   | 9  | UNUSED                  |
|     | 9   | 2  | 9                       |
| 11  | 2   |    | UNUSED                  |
| 13  | 1   | 13 |                         |
| 14  | 18  |    | UNUSED                  |
| 32  | 95  | 32 |                         |
| 127 | 1   |    | UNUSED                  |
| 128 | 128 |    | "High-order characters" |

CAPACITY SGMLREF

|           |        |
|-----------|--------|
| TOTALCAP  | 200000 |
| ENTCAP    | 35000  |
| ENTCHCAP  | 35000  |
| ELEMCAP   | 35000  |
| GRPCAP    | 150000 |
| EXGRPCAP  | 35000  |
| EXNMCAP   | 35000  |
| ATTCAP    | 50000  |
| ATTCFICAP | 35000  |
| AVGRPCAP  | 35000  |
| NOTCAP    | 35000  |
| NOTCHCAP  | 35000  |
| IDCAP     | 35000  |
| IDREFCAP  | 35000  |
| MAPCAP    | 35000  |
| LKSETCAP  | 35000  |
| LKNMCAP   | 35000  |

SCOPE DOCUMENT

SYNTAX

SHUNCHAR 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17  
18 19 20 21 22 23 24 25 26 27 28 29 30 31 127

BASESET "ISO 646-1983//CHARSET

International Reference Version (IRV)//ESC 2/5 4/0"

DESCSET 0 128 0

128 128 "High-order characters"

FUNCTION RE 13

RS 10

SPACE 32

TAB SEPCHAR 9

NAMING LCNMSTR " "

UCNMSTR " "

LCNMCHAR "-./[]"

```

UCNMCHAR "-./[]"
NAMECASE GENERAL YES
ENTITY NO
DELIM GENERAL SGMLREF
SHORTREF SGMLREF
NAMES SGMLREF
QUANTITY SGMLREF
ATTCNT 100
ATTSPLEN 960
BSEQLEN 960
DTAGLEN 16
DTEMPLN 16
ENTLVL 16
GRPCNT 100
GRPGTCNT 96
GRPLVL 16
LITLEN 800
NAMELEN 64
NORMSEP 2
PILEN 1024
TAGLEN 960
TAGLVL 24

```

```

FEATURES
MINIMIZE DATATAG NO OMITTAG YES RANK NO SHORTTAG
YES
LINK SIMPLE NO IMPLICIT NO EXPLICIT NO
OTHER CONCUR NO SUBDOC NO FORMAL YES
APPINFO NONE>

```

```

<!DOCTYPE legislation
[
<!--

```

DTD for Scantext/Abha Legislation - (C) Turn-Key Systems 1997

History:

```

1997-10-13: fix hist at beginning of regs
1997-10-07: restore <target> tag
1997-10-02: enhanced support for regulations (hist, unconv etc)

```

-->

```

<!-- useful characters such as &mdash; -->
<!ENTITY % ISOpub public "ISO 8879-1986//ENTITIES Publishing//EN">
%ISOpub;

```

```

<!-- PARAMETER ENTITIES USED TO SIMPLIFY DTD MARKUP -->
<!entity % major
"schedule|intcon|article|annex|clause|chapter|part|division|subdivn|section|subs ec|reg|subreg"

```

```

-- major levels -->

<!entity % minor "defn|para|subpar1|subpar2|subpar3|subpar4|point"
-- minor levels -->

<!entity % secreg "section | reg"
-- used where either sections or regs are appropriate -->

<!entity % level "%major; | %minor;"
-- all levels -->

< entity % refs "term | l.ref | h.ref"
-- references which can be found in normal text -->

<!entity % raw "(rawtext | rawtable | unconverted)*"
-- material such as forms which remains as raw text -->

<!entity % effect "sc"
-- typographical effects (more to be added later) -->

<!entity % text "(%refs; | %effect; | #PCDATA)*"
-- normal text (including refs defined above) -->

<!entity % hnote "hist | note"
-- hist and note are temporarily interchangeable -->

<!entity % body "(p+ | repealed), (%hnote;)*"
-- body of a legislative element -->

< !entity % lev.id "((label, desc?) | (desc, label?))"
-- reversible level id -->

<!-- MASTER ELEMENT -->
<!element legislation -- (act | regulations)+
-- Acts and Regs are currently supported -->

<!-- DEFINITIONS OF ACTS AND CONSTITUENT ELEMENTS -->
<!element act -- (desc, (%hnote; | %raw;)*,
longtitle, preamble?,
(chapter+ | part+ | section+),
Schedule*, hist*)>
<!element longtitle -- (#PCDATA)>
<!element preamble -- (p+) +(para)>

<!element regulations -- (desc, (%hnote; | %raw;)*,
(chapter+ | part+ | reg+),
schedule*, hist*)>

<!-- MAJOR LEVELS -->
<!element chapter -- (label, desc, (%hnote;)*,
(((%secreg;)*, part*) | article+))>
<!element part -- (label?, desc, hist*,
(((%secreg;)*, division*) | (article+ | clause+)))>
<!element division -- (label?, desc, (p | %hnote;)*,
(((%secreg;)*, subdivn*) | clause+))>
<!element subdivn -- (label?, desc, (%hnote;)*,
((%secreg;)+ | clause+))>
<!element section -- (%lev.id;

```

```

        ((subsec +, (modules | module +)?) | repealed))>
<!element subsec -- (%lev.id;,
    ((p, (p | note)*, hist*) | (repealed, note*, hist*)))>
<!element modules -- (%lev.id;,
    module+)>
<!element module -- (%lev.id;, |
    (submod + | repealed))>
<!element submod -- (%lev.id;,
    ((p, (p | %hnote; | method | tabloid)* | (repealed, (%hnote;)*)))>
<!element reg -- (label?, desc, hist?,
    (subreg + | repealed))>
<!element subreg -- (label, desc?, hist?,
    ((p, (p | note)*, hist*) | (repealed, note*, hist*)))>

<!-- SCHEDULES, CONVENTIONS etc -->
<!element schedule -- (label?, desc?, hist*,
    (chapter+ | part+ | section+ item+ | p+ | tabloid+ | intcon)?,
    %raw;)>
<!element intcon -- (desc, preamble,
    (part+ | division+ | subdivn+ | article+), annex*)>
<!element annex -- (label?, desc, p*,
    (part* | division* | clause* | para*,
    (division* | clause* | para*)))>
<!element article -- (label, desc?) para*)))>
<!element clause -- (((label, desc?) | (desc, label)), p+)>
<!element item -- (label?, desc?, %body;)>

<!-- DEFINITIONS AND MINOR LEVELS -->
<!element defn -- (%body;)>
<!element note -- (label?, p+)>
<!element hist -- (label?, (p+ | raw;))>
<!element point -- (p+)>

<!element para -- (label?, %body;)>
<!element subpar1 -- (label?, %body;)>
<!element subpar2 -- (label?, %body;)>
<!element subpar3 -- (label?, %body;)>
<!element subpar4 -- (label?, %body;)>

<!element method -- (%lev.id;, (p | %hnote; | step)+)>
<!element step -- (label, %body;)>

<!-- COMMON CONSTITUENT ELEMENTS -->
<!element label -- (%text;
    -- chapter number, section number, etc. -->
<!element desc -- (%text;
    -- chapter name, section name, etc. -->
<!element term -- (%text;
    -- defined term -->
<!element repealed - o EMPTY
    -- indicates that the enclosing level has been repealed -->
<!element p -- (%minor | refs; | %effect | tabloid | amend | target | #PCDATA)*
    -- textual paragraph at any level -->

```



```

<!-- UNCONVERTED MATERIAL -->
<!element unconverted - - CDATA
    -- yet to be converted (eg. complex schedules) -->
<!element rawtext - - CDATA
    -- unconverted text (eg. forms) -->
<!element rawtable - - CDATA
    -- unconverted tables (eg. amended provisions) -->

<!-- CROSS-REFERENCES -->
<!element l.ref - - (%text;) -- legislation ref -->
<!element h.ref - - (%text;) -- history ref -->

<!-- AMENDMENT MARKUP-->
<!element amend - - (%refs | %effect | quote | #PCDATA)*
    -- amendment = action + text -->
<!element target - - (#PCDATA)
    -- target of amendment -->
<!element quote - - (label | desc | p | %level | %refs | %effect | #PCDATA)*
    -- quoted material -->

<!-- PSEUDO-TABLES -->
<!element tabloid - - (label?, desc?, (head | row)+)>
<!element head - - (cell+)>
<!element row - - (cell+)>
<!element cell - - (#PCDATA|p)*>

<!-- EFFECTS -->
<!element sc - - (#PCDATA) -- small caps -->

<!-- ATTRIBUTE LISTS -->
<!attlist act   juris (cth | nsw | vic | qld | sa | wa | tas | act | nt | imp)
                #REQUIRED -- jurisdiction --
                year   CDATA   #REQUIRED -- year assented --
                number CDATA   #REQUIRED -- act number --
                reps   CDATA   #IMPLIED -- 2nd reading (HR) --
                senate CDATA   #IMPLIED -- 2nd reading (Sen) --
                assent CDATA   #IMPLIED -- assent date --
                cdate  CDATA   #IMPLIED -- commencement -->
<!attlist regulations juris (cth | nsw | vic | qld | sa | wa | tas | act | nt | imp)
                #REQUIRED -- jurisdiction --
                Year   CDATA   #REQUIRED -- year assented --
                number CDATA   #REQUIRED -- act number
                reps   CDATA   #IMPLIED -- 2nd reading (HR) --
                senate CDATA   #IMPLIED -- 2nd reading (Sen) --
                notified CDATA #IMPLIED -- notification date --
                cdate  CDATA   #IMPLIED -- commencement
<!attlist schedule id   ID   #IMPLIED -- legislation id --
                cdate  CDATA   #IMPLIED -- commencement --
                refsec CDATA   #IMPLIED -- referring section -->
<!attlist chapter id   ID   #IMPLIED -- legislation id --
                cdate  CDATA   #IMPLIED -- commencement
<attlist part id      ID   #IMPLIED -- legislation id --
                cdate  CDATA   #IMPLIED -- commencement
<attlist division id ID   #IMPLIED -- legislation id --
                cdate  CDATA   #IMPLIED -- commencement
<attlist subdivn id  ID   #IMPLIED -- legislation id --
                cdate  CDATA   #IMPLIED -- commencement

```

|                      |       |                                   |
|----------------------|-------|-----------------------------------|
| <!attlist section id | ID    | #IMPLIED -- legislation id --     |
| cdate                | CDATA | #IMPLIED -- commencement -->      |
| <attlist subsec id   | ID    | #IMPLIED -- legislation id --     |
| cdate                | CDATA | #IMPLIED -- commencement -->      |
| <!attlist reg id     | ID    | #IMPLIED -- legislation id --     |
| cdate                | CDATA | #IMPLIED -- commencement -->      |
| <!attlist subreg id  | ID    | #IMPLIED -- legislation id --     |
| cdate                | CDATA | #IMPLIED -- commencement -->      |
| <!attlist l.ref ref  | IDREF | #IMPLIED -- legislation idref --> |
| <!attlist term id    | ID    | #IMPLIED -- term id               |
| ]>                   |       |                                   |

## INDUSTRIAL APPLICABILITY

It is apparent from the above that the arrangements described are applicable to the electronic publishing industry.

The foregoing describes only some embodiments of the present invention, and modifications and/or changes can be made thereto without departing from the scope and spirit of the invention, the embodiments being illustrative and not restrictive.

The invention claimed is:

1. A method for electronically publishing text-based data, the method comprising:

dividing the text-based data into a plurality of portions of text-based data;

obtaining an amended portion of text-based data that is amended relative to one of the plurality of portions of text-based data;

storing each of the plurality of portions of text-based data; storing the amended portion of text-based data;

providing a plurality of attributes, wherein the attributes define a manner in which the plurality of portions of text-based data and the amended portion of text-based data can be organized, displayed and linked in a multidimensional space;

encoding each of the plurality of portions of text-based data and the amended portion of text-based data with a markup language to include at least one link defined by one of the plurality of attributes;

allowing a user to search the text-based data using at least one of the plurality of attributes; and

displaying the text-based data to the user by:

displaying at least one of the plurality of portions of text-based data or the amended portion of text-based data in response to the search; and

displaying text, and/or one or more selectable links representing at least one additional attribute.

2. The method according to claim 1, wherein the searching uses one or more attributes.

3. The method according to claim 1, wherein the markup language is Standard Generalised Markup Language (SGML) or extensible Markup Language (XML).

4. The method according to claim 3, wherein the text-based data is encoded using one or more Document Type Definitions (DTD) or Style Sheet Mechanisms (SSM).

5. The method according to claim 1, wherein the at least one link comprises any piece of information additional to the text of the text-based data.

6. The method according to claim 5, wherein the at least one link comprises a code or markup that allows departure and destination points to be created between portions of the text-based data.

7. The method according to claim 1, wherein said at least one link comprises an identification code for a corresponding portion of text-based data.

8. The method according to claim 1, wherein the amended portion of text-based data is amended by performing at least one of the group consisting of adding data to the portion, deleting data from the portion, and modifying data of the portion.

9. The method according to claim 1, wherein the text-based data comprises legislation or material related to a provision of said legislation.

10. The method according to claim 9, wherein each of the plurality of portions of text-based data is a respective provision of said legislation or material related to a provision of said legislation.

11. The method according to claim 10, wherein said provision is a section, schedule or appendix of an Act, or a section, schedule or appendix of a regulation.

12. The method according to claim 1, wherein each portion is a block of the text-based data, the block being larger than a single word and less than the entirety of the text-based data.

13. A method for electronically searching legislation encoded with a markup language, the method comprising: allowing a user to select a version date as a primary attribute of a multidimensional space and to input at least one search request;

producing results based on the text of the legislation;

displaying the results in a format that is configured to allow the user to select one of the results;

displaying the result as a portion of legislation corresponding to a selected result that corresponds to the primary attribute and the at least one search request; displaying a link to cases related to the portion of legislation and a link to additional versions of the legislation; and

allowing the user to select the version link or the case link; wherein, when the user selects the case link or version link, the portion of legislation is replaced with a list of portions of text-based data associated with the case link or the version link, respectively.

14. The method of claim 13, wherein the results are produced using one or more attributes.

15. The method of claim 13, wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes.

16. The method according to claim 15, wherein the at least one link comprises any piece of information additional to the text of the text-based data.

17. The method according to claim 16, wherein the at least one link comprises a code or markup that allows departure and destination points to be created between portions of the text-based data.

18. The method according to claim 15, wherein said at least one link comprises an identification code for a corresponding portion of text-based data.

19. The method according to claim 15, wherein each of the portions of text-based data is a respective provision of said legislation or material related to a provision of said legislation.

20. The method according to claim 19, wherein said provision is a section, schedule or appendix of an Act, or a section, schedule or appendix of a regulation.

21. The method according to claim 15, wherein each portion of text-based data is a block of the text-based data, the block being larger than a single word and less than the entirety of the text-based data.

22. The method according to claim 13, wherein the markup language is Standard Generalised Markup Language (SGML) or extensible Markup Language (XML).

23. The method according to claim 22, wherein the text-based data is encoded using one or more Document Type Definitions (DTD) or Style Sheet Mechanisms (SSM).

24. A method for electronically publishing text-based data, the method comprising: dividing the text-based data into a plurality of portions of text-based data;

obtaining an amended portion of text-based data that is amended relative to one of the plurality of portions of text-based data;

storing each of the plurality of portions of text-based data; storing the amended portion of text-based data;

providing a plurality of attributes, wherein the attributes define a manner in which the plurality of portions of text-based data and the amended portion of text-based data can be organized, displayed and linked;

encoding each of the plurality of portions of text-based data and the amended portion of text-based data with a markup language to include at least one link defined by one of the plurality of attributes;

allowing a user to search the text-based data using at least one of the plurality of attributes; and

displaying the text-based data to the user by:

displaying at least one of the plurality of portions of text-based data or the amended portion of text-based data in response to the search; and

displaying one or more selectable links;

wherein when the user selects the one or more selectable links, the plurality of portions related to a current portion based on the current portion's attributes are displayed as a graphical representation of a multidimensional space that is configured to allow a user to select and thereby display text-based data represented by a point on the multidimensional space.

25. The method according to claim 24, wherein the searching uses one or more attributes.

26. The method according to claim 24, wherein the markup language is Standard Generalised Markup Language (SGML) or extensible Markup Language (XML).

27. The method according to claim 26, wherein the text-based data is encoded using one or more Document Type Definitions (DTD) or Style Sheet Mechanisms (SSM).

28. The method according to claim 24, wherein the at least one link comprises any piece of information additional to the text of the text-based data.

29. The method according to claim 24, wherein the at least one link comprises a code or markup that allows departure and destination points to be created between portions of the text-based data.

30. The method according to claim 24, wherein said at least one link comprises an identification code for a corresponding portion of text-based data.

31. The method according to claim 24, wherein the amended portion of text-based data is amended by performing at least one of the group consisting of adding data to the portion, deleting data from the portion, and modifying data of the portion.

32. The method according to claim 31, wherein the text-based data comprises legislation or material related to said legislation.

33. The method according to claim 32, wherein each of the plurality of portions of text-based data is a respective provision of said legislation or material related to a provision of said legislation.

34. The method according to claim 33, wherein said provision is a section, schedule or appendix of an Act or a section, schedule or appendix of a regulation.

35. The method according to claim 24, wherein each portion is a block of the text-based data, the block being larger than a single word and less than the entirety of the text-based data.

36. A method for electronically searching text-based data encoded with a mark-up language, the method comprising:

allowing a user to select a version date as a primary attribute and to input at least one search request;

producing results based on the text of the text-based data;

displaying the results in a format that is configured to allow the user to select one of the results;

displaying the result as a portion of text-based data corresponding to a selected result that corresponds to the at least one attribute and the at least one search request;

displaying a link;

allowing a user to select the link;

whereupon the plurality of portions related to the current portion are displayed as a graphical representation of a multidimensional space; and

allowing the user to select and thereby display text-based data represented by a point on the multidimensional space;

wherein each point on the multidimensional space is defined by the value of one or more of a plurality of attributes.

37. The method according to claim 36, wherein the results are produced using one or more attributes.

38. The method according to claim 36, wherein the plurality of portions is related to the current portion by at least one link defined by one or more of the plurality of attributes.

39. The method according to claim 38, wherein the at least one link comprises any piece of information additional to the text of the text-based data.

40. The method according to claim 39, wherein the at least one link comprises a code or markup that allows departure and destination points to be created between portions of the text-based data.

41. The method according to claim 38, wherein said at least one link comprises an identification code for a corresponding portion of text-based data.

42. The method according to claim 38, wherein the amended portion of text-based data is amended by performing at least one of the group consisting of adding data to the portion, deleting data from the portion, and modifying data of the portion.

43. The method according to claim 38, wherein the text-based data comprises legislation or material related to said legislation.

44. The method according to claim 43, wherein each of the plurality of portions of text-based data is a respective provision of said legislation or material related to a provision of said legislation.

45. The method according to claim 44, wherein said provision is a section, schedule or appendix of an Act, or a section, schedule or appendix of a regulation.

46. The method according to claim 38, wherein each portion is a block of the text-based data, the block being larger than a single word and less than the entirety of the text-based data.

47. The method according to claim 36, wherein the markup language is Standard Generalised Markup Language (SGML) or eXtensible Markup Language (XML).

48. The method according to claim 47, wherein the text-based data is encoded using one or more Document Type Definitions (DTD) or Style Sheet Mechanisms (SSM).