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OVL

Overline.

PHR

Phrase. In a phrase all characters are set in roman face and keyed space characters are
5   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
10   (e.g. square, cube, 4, etc.).

RCD

Radicand. The content of a root construct.

RDX

Radix. The power of a root.

15   **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

20   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
25   that they specify the right hand match for the relevant left post.

SUP

Superior. A superscript in an equation.

UNL

Underline.

30   **Arbortext equation examples**

... by multiplying by the fraction -

A

B

where -

35   ```
<p>... by multiplying by the fraction -</p>
<dpeqn><fr><nu><rm>A</></></de><rm>B</></></></></>
<p>where -</p>
```

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... by the formula -

$$\frac{\text{gross taxable income}}{\text{net assets}}$$

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

`<dpeqn><fr><nu><phr>gross taxable income</></><de><phr>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*
10   *images.*

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**APPENDIX E**

```
<!SGML "ISO 8879:1986"
--
     ArborText's default SGML declaration, modified to allow
     longer id/idref's, 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
     ATTCHCAP        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
```

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```
        128   128   "High-order characters"
     FUNCTION RE 13
           RS   10
           SPACE   32
  5        TABSEPCHAR 9
     NAMING  LCNMSTRT ""
           UCNMSTRT ""
           LCNMCHAR "-./[]"
           UCNMCHAR "-./[]"
  10       NAMECASE GENERAL YES
                  ENTITY  NO
     DELIM    GENERAL SGMLREF
           SHORTREF SGMLREF
     NAMES    SGMLREF
  15 QUANTITY SGMLREF
           ATTCNT      100
           ATTSPLEN    960
           BSEQLEN     960
           DTAGLEN         16
  20       DTEMPLEN    16
           ENTLVL      16
           GRPCNT      100
           GRPGTCNT    96
           GRPLVL      16
  25       LITLEN      800
           NAMELEN         64
           NORMSEP         2
           PILEN       1024
           TAGLEN      960
  30       TAGLVL      24

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


  40 <!DOCTYPE legislation
     [
     <!--

        DTD for Scantext/Abha Legislation - (C) Turn-Key Systems 1997
  45
            History:

                1997-10-13: fix hist at beginning of regs
```

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```
                   1997-10-07: restore <target> tag
                   1997-10-02: enhanced support for regulations (hist, unconv etc)

-->

5
<!-- useful characters such as &mdash; -->
<!ENTITY % ISOpub public "ISO 8879-1986//ENTITIES Publishing//EN">
%ISOpub;


10
<!-- PARAMETER ENTITIES USED TO SIMPLIFY DTD MARKUP -->
<!entity % major
"schedule|intcon|article|annex|clause|chapter|part|division|subdivn|section|subsec|
reg|subreg"
15        -- major levels -->

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

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

<!entity % level "%major;|%minor;"
          -- all levels -->
25
<!entity % refs "term|l.ref|h.ref"
          -- references which can be found in normal text -->

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

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

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

<!entity % hnote "hist | note"
          -- hist and note are temporarily interchangeable -->
40
<!entity % body "(p+|repealed), (%hnote;)*"
          -- body of a legislative element -->

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


<!-- MASTER ELEMENT -->
```

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


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

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

    <!-- MAJOR LEVELS -->
    <!element chapter  - - (label, desc, (%hnote;)*,
             (((%secreg;)*, part*)    | article+))>
20  <!element part     - - (label?, desc, hist*,
             (((%secreg;)*, division*) | (article+ | clause+)))>
    <!element division - - (label?, desc, (p | %hnote;)*,
             (((%secreg;)*, subdivn*)  | clause+))>
    <!element subdivn  - - (label?, desc, (%hnote;)*,
25           ((%secreg;)+ | clause+))>
    <!element section  - - (%lev.id;,
             ((subsec+, (modules | module+)?) | repealed))>
    <!element subsec   - - (%lev.id;,
             ((p, (p | note)*, hist*) | (repealed, note*, hist*)))>
30  <!element modules  - - (%lev.id;,
             module+)>
    <!element module   - - (%lev.id;,
             (submod+ | repealed))>
    <!element submod   - - (%lev.id;,
35           ((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*)))>
40
    <!-- SCHEDULES, CONVENTIONS etc -->
    <!element schedule - - (label?, desc?, hist*,
             (chapter+ | part+ | section+ | item+ | p+ | tabloid+ | intcon)?,
             %raw;)>
45  <!element intcon   - - (desc, preamble,
             (part+ | division+ | subdivn+ | article+), annex*)>
    <!element annex    - - (label?, desc, p*,
             (part* | division* | clause* | para*))>
```

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```
<!element article - - (label, desc, p*,
        (division* | clause* | 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 -->
```

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```
<!-- 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   --
```

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```
          cdate CDATA #IMPLIED -- commencement    -->
     <!attlist subsec id   ID   #IMPLIED -- legislation id   --
          cdate CDATA #IMPLIED -- commencement    -->
     <!attlist reg    id   ID   #IMPLIED -- legislation id   --
 5        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       -->
10   ]>
```

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We claim:

1. A computer-implemented system for publishing an electronic publication using text-based data, comprising:

a plurality of predefined portions of text-based data with each predefined portion being stored;

at least one predefined portion being modified and stored;

a plurality of linking means of a markup language, each predefined portion of said text-based data and said at least one modified predefined portion of text-based data being encoded with at least one linking means; and

a plurality of attributes, each attribute being a point on an axis of a multidimensional space for organising said plurality of predefined portions and said at least one modified predefined portion of said text-based data.

2. The system according to claim 1, comprising means for searching within the system.

3. The system according to claim 2, wherein said searching means uses one or more attributes.

4. The system according to claim 2, wherein said searching means uses any predefined portion, any modification of a predefined portion, or any word or phrase within such predefined portion or such modification.

5. The system according to claim 1, further comprising means for searching at least one of said text-based predefined portions of said data using said plurality of attributes, wherein said plurality of attributes are coupled to each of said predefined portions by said respective linking means, and for retrieving one or more of said predefined portions using said plurality of attributes to define a point in said multidimensional space.

6. The system according to claim 1, wherein said markup language is Standard Generalised Markup Language (SGML) or eXtensible Markup Language (XML).

7. The system according to claim 6, wherein said text-based data is encoded using one or more Document Type Definitions (DTD) or Style Sheet Mechanisms (SSM).

8. The system according to claim 1, wherein said linking means comprises any piece of information additional to the body of the text-based data.

9. The system according to claim 8, wherein said linking means is a code or markup that allows departure and destination points to be created between portions of said text-based data.

10. The system according to claim 1, wherein said at least one linking means comprises an identification code for said respective predefined portion.

11. The system according to claim 1, wherein a first database comprises said plurality of predefined portions of text-based data.

12. The system according to claim 11, wherein a second database comprises said plurality of attributes for managing said first database.

13. The system according to claim 1, wherein said predefined portions are encoded with one or more attributes.

14. The system according to claim 1, wherein said respective predefined portion is changed by performing one of the group consisting of adding at least one attribute to said respective predefined portion, deleting at least one attribute from said respective predefined portion, and modifying at least one of the attributes of said respective predefined portion.

15. The system according to claim 1, wherein said respective predefined portion is changed by performing one of the group consisting of adding data to said respective predefined portion, deleting data from said respective predefined portion, and modifying data of said respective predefined portion.

16. The system according to claim 1, wherein said text-based data comprises legislation.

17. The system according to claim 16, wherein each of said plurality of predefined portions of said text-based data is a respective provision of said legislation.

18. The system according to claim 17, wherein said provision is a section or schedule of an Act, or a regulation or schedule of a Regulation(s).

19. The system according to claim 1, wherein each predefined portion is a block of said text-based data, said block being larger than a single word and less than an entire document of said text-based data.

20. A computer readable recording medium for publishing an electronic publication using text-based data, comprising:

a plurality of predefined portions of text-based data with each predefined portion being stored;

at least one predefined portion being modified and stored; and

a plurality of linking means of a markup language, each predefined portion of said text-based data and said at least one modified predefined portion of text-based data being encoded with at least one linking means; and

a plurality of attributes, each attribute being a point on an axis of a multidimensional space for organising said plurality of predefined portions and said at least one modified predefined portion of said text-based data.

21. The recording medium according to claim 20, wherein means for searching can be used to search the recording medium.

22. The recording medium according to claim 21, wherein said searching means uses one or more attributes.

23. The recording medium according to claim 21, wherein said searching means uses any predefined portion, any modification of a predefined portion, or any word or phrase within such predefined portion or such modification.

24. The recording medium according to claim 20, further comprising means for searching at least one of said predefined portions of said text-based data uses said plurality of attributes, wherein said plurality of attributes are coupled to each of said predefined portions by said respective linking means, and for retrieving one or more of said predefined portions using said plurality of attributes to define a point in said multidimensional space.

25. The recording medium according to claim 20, wherein said markup language is Standard Generalised Markup Language (SGML) or eXtensible Markup Language (XML).

26. The recording medium according to claim 25, wherein said text-based data is encoded using one or more Document Type Definitions (DTD) or Style Sheet Mechanisms (SSM).

27. The recording medium according to claim 20, wherein said linking means comprises any piece of information additional to the body of the text-based data.

28. The recording medium according to claim 27, wherein said linking means is a code or markup that allows departure and destination points to be created between portions of said text-based data.

29. The recording medium according to claim 20, wherein said at least one linking means comprises an identification code for said respective predefined portion.

30. The recording medium according to claim 20, wherein a first database comprises said plurality of predefined portions of said text-based data.

31. The recording medium according to claim 30, wherein a second database comprises said plurality of attributes for managing said first database.

32. The recording medium according to claim 20, wherein said predefined portions are encoded with one or more attributes.

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33. The recording medium according to claim 20, wherein said respective predefined portion is changed by performing one of the group consisting of adding at least one attribute to said respective predefined portion, deleting at least one attribute from said respective predefined portion, and modifying at least one of the attributes of said respective predefined portion.

34. The recording medium according to claim 20, wherein said respective predefined portion is changed by performing one of the group consisting of adding data to said respective predefined portion, deleting data from said respective predefined portion, and modifying data of said respective predefined portion.

35. The recording medium according to claim 20, wherein said text-based data comprises legislation.

36. The recording medium according to claim 35, wherein each of said plurality of predefined portions of said text-based data is a respective provision of said legislation.

37. The recording medium according to claim 36, wherein said provision is a section or schedule of an Act, or a regulation or schedule of a Regulation(s).

38. The recording medium according to claim 20, wherein said recording medium is made from one of the group consisting of magnetic media, optical media, and magneto-optical media.

39. The recording medium according to claim 20, wherein each predefined portion is a block of said text-based data, said block being larger than a single word and less than an entire document of said text-based data.

40. A computer-implemented method for publishing an electronic publication using text-based data, comprising the steps of:

  providing a plurality of predefined portions of text-based data with each predefined portion being stored;

  encoding each predefined portion of said text-based data with at least one linking means of a markup language;

  providing at least one predefined portion being modified and stored;

  providing a plurality of attributes, each attribute being a point on an axis of a multidimensional space for organising said plurality of predefined portions and said at least one modified predefined portion of said text-based data.

41. The method according to claim 40, comprising the step of searching said text-based data.

42. The method according to claim 41, wherein said searching step uses one or more attributes.

43. The method according to claim 41, wherein said searching step uses any predefined portion, any modification of a predefined portion, or any word or phrase within such predefined portion or such modification.

44. The method according to claim 40, further comprising the step of searching at least one of said predefined portions of said text-based data using said plurality of attributes, wherein said plurality of attributes are coupled to each of

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said predefined portions by said respective linking means, and for retrieving one or more of said predefined portions using said plurality of attributes to define a point in said multidimensional space.

45. The method according to claim 40, wherein said markup language is Standard Generalised Markup Language (SGML) or eXtensible Markup Language (XML).

46. The method according to claim 45, wherein said text-based data is encoded using one or more Document Type Definitions (DTD) or Style Sheet Mechanisms (SSM).

47. The method according to claim 40, wherein said linking means comprises any piece of information additional to the body of the text-based data.

48. The method according to claim 47 wherein said linking means is a code or markup that allows departure and destination points to be created between portions of said text-based data.

49. The method according to claim 40, wherein said at least one linking means comprises an identification code for said respective predefined portion.

50. The method according to claim 40, wherein a first database comprises said plurality of predefined portions of said text-based data.

51. The method according to claim 50, wherein a second database comprises said plurality of attributes for managing said first database.

52. The method according to claim 40, wherein said predefined portions are encoded with one or more attributes.

53. The method according to claim 40, wherein said respective predefined portion is changed by performing one of the group consisting of adding at least one attribute to said respective predefined portion, deleting at least one attribute from said respective predefined portion, and modifying at least one of the attributes of said respective predefined portion.

54. The method according to claim 40, wherein said respective predefined portion is changed by performing one of the group consisting of adding data to said respective predefined portion, deleting data from said respective predefined portion, and modifying data of said respective predefined portion.

55. The method according to claim 40, wherein said text-based data comprises legislation.

56. The method according to claim 55, wherein each of said plurality of predefined portions of text-based data is a respective provision of said legislation.

57. The method according to claim 56, wherein said provision is a section or schedule of an Act, or a regulation or schedule of a Regulation(s).

58. The method according to claim 40, wherein each predefined portion is a block of said text-based data, said block being larger than a single word and less than an entire document of said text-based data.

* * * * *