EXHIBIT A-1

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA

TIMEBASE PTY LTD, Plaintiff, vs. **THE THOMSON CORPORATION, WEST PUBLISHING CORPORATION, and WEST SERVICES, INC.,** Defendant.	**Civil No. 07-CV-1687 (JNE/JJG)**

EXPERT REPORT OF MICHAEL STONEBRAKER, PH.D.

INVALIDITY ISSUES

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TABLE OF CONTENTS

Page

I. INTRODUCTION 1

II. QUALIFICATIONS 1

III. COMPENSATION 3

IV. MATERIALS REVIEWED 3

V. BASIS OF OPINIONS 3

VI. DESCRIPTION OF THE PATENTS 4

A. THE '592 AND '228 PATENTS 4

B. MEANING OF CLAIM TERMS 5

C. THE SUBJECT MATTER OF THE PATENTS 7

1. Multidimensional Space 8

2. Graphical Representation of a Multidimensional Space 13

VII. APPLICABLE LEGAL STANDARDS 16

A. PERSON OF ORDINARY SKILL IN THE ART 16

B. WRITTEN DESCRIPTION 17

VIII. OPINIONS 19

A. INTRODUCTION 19

B. THE METHOD OF CLAIMS 24 AND 36 IS NOT DISCLOSED IN THE '228 PATENT SPECIFICATION 21

1. The General Text of the Specification for the '228 Patent Does Not Discuss or Disclose a Graphical Representation of a Multidimensional Space 22

2. None of the Figures in the Specification Disclose or Describe a Graphical Representation of a Multidimensional Space 24

3. The '228 Patent's Appendices A–E Do Not Disclose a Graphical Representation of a Multidimensional Space 33

C. GRAPHICALLY DISPLAYING A MULTIDIMENSIONAL SPACE WOULD BE COMPLEX AND WOULD REQUIRE A DETAILED DISCLOSURE 33

I. INTRODUCTION

I have been asked by defendants The Thomson Corporation, West Publishing Corporation, and West Services, Inc. (collectively, "West") to provide a report and to testify regarding my opinions on topics in this case relating to the invention claimed in U.S. Patent No. 6,233,592 ("the '592 patent") and U.S. Patent No. 7,293,228 ("the '228 patent"). In particular, I have been asked to provide my opinions regarding whether independent claims 24 and 36 and their dependent claims 25–35 and 37–48 of the '228 patent are invalid for failure to meet the written description requirement of 35 U.S.C. § 112.

II. QUALIFICATIONS

I am an Adjunct Professor of Computer Science and Engineering at the Massachusetts Institute of Technology ("MIT") in Cambridge, Massachusetts, with an appointment in the Computer Science and Artificial Intelligence Laboratory. Prior to joining MIT, I was a Professor of Computer Science at the University of California at Berkeley in various roles for nearly 30 years from 1971 to 1999. I have a Ph.D. in Computer Information and Control Engineering from the University of Michigan (1971) and a B.S. in Electrical Engineering from Princeton (1965). I also have served as an advisor to or a principal in various technology companies, including Ingres, Illustra, Cohera, Informix, Streambase Systems, Vertica, Goby, VoltDB, and Paradigm4.

My research and work over the years has included work on database systems, operating systems, query languages, data storage, graphical display systems, and software. In particular, my work has been directed toward, among other things, building

high performance database systems, parallel DBMS engines, and engines oriented toward extendability.

In connection with this work, I was one of the developers of the INGRES and POSTGRES database systems, as well as systems for catalog management and publication, data streaming, and data warehousing and storage, as well as query languages.

I have published over 75 papers in peer-reviewed publications and have given over 25 invited presentations in international and national scientific meetings, many of which relate directly to the field of database systems. Many of my publications also relate directly to database design. I am a co-author or co-editor of several books, including *Readings in Database Systems* and *Object-Relational DBMSs: The Next Wave*. In addition, I have served in a number of professional organizations involved in researching and developing databases.

Over the years, I have received various awards in connection with my work, including the IEEE John von Neumann Medal, the ACM/SIGMOD Edgar F. Codd Innovations Award, and the ACM Software System Award. I am a Fellow of the Association for Computing Machinery and am a member of the National Academy of Engineering. I was also recently elected to membership in the American Academy of Arts and Science.

A copy of my current professional resume is attached as Appendix 1 to this report, which includes a list of publications I have authored or co-authored within the last ten years as well as a list of recent cases for which I have been retained as an expert.

III. COMPENSATION

I am being compensated at the rate of $500 per hour for my time consulting or testifying in this case. This compensation is unrelated to the outcome of this case.

IV. MATERIALS REVIEWED

In forming my opinions and preparing this report, I have reviewed and relied on the ‘592 and ‘228 patents, the prosecution histories for the ‘592 and ‘228 patents (including the Ex Parte Reexamination of the ‘592 patent), the Court’s Order of January 21, 2011 (“Claim Construction Order”) (Dkt. 219), and references listed in Appendix 2 of this report, together with miscellaneous other documents, materials, and references. I may use some or all of these documents as exhibits during my testimony.

V. BASIS OF OPINIONS

My opinions are based on my personal knowledge and expertise and my review and investigation of the items and materials described above. All of my opinions, and the bases of those opinions, are true and correct to the best of my knowledge and belief, including those relating to scientific issues, which I believe are true and correct to a reasonable degree of scientific certainty. I do, however, reserve the right to supplement this report and my opinions in view of any new material or information provided to me. In addition, if called upon to testify at trial, I would expect to use various demonstrative exhibits, animations, videos, and/or models and charts to show the relevant technology and to present my opinions as set forth in this report.

VI. DESCRIPTION OF THE PATENTS

The patents in this case relate generally to systems and methods for electronically publishing text-based data based on various elements, including an element that the patents call a "multidimensional space." In this section, I have summarized background information about both the '592 and the '228 patents and their claim terms, and then focused on particular elements of the '228 patent that relate to my opinion on written description.

A. THE '592 AND '228 PATENTS

I understand that the '592 patent originally issued on May 15, 2001. I understand that a third-party initiated an *ex parte* reexamination of the '592 patent and that the patent subsequently emerged from reexamination on May 5, 2009 with three additional independent claims, for a total of 61 claims. Six of these claims are independent claims and the remaining 55 claims are dependent claims. The inventors named on the '592 patent are Christoph Schnelle, Abha Lessing, and Peter Mariani. I understand that TimeBase contends that the '592 patent application claims priority to a Patent Cooperation Treaty application filed on January 30, 1998, which in turn claims priority to an Australian patent application filed on January 31, 1997.

I understand that the '228 patent issued on November 6, 2007 and stems from an application filed on October 12, 2000. I understand that the original '228 patent application named Abha Lessing, Christoph Schnelle, Paul William Leslie, and Geoffrey John Nolan as the inventors. The original '228 patent application incorporated by reference the specification of the '592 patent application, but did not claim priority to the

‘592 patent application. I understand that on August 2, 2006, TimeBase submitted new claims for the ‘228 patent application, inserted the specification of the ‘592’s application into the specification of the ‘228 patent application, and then claimed that the ‘228 patent shared the same priority date of January 31, 1997 as the ‘592 patent. I understand that, as a consequence, the ‘592 patent’s specification is a subset of the ‘228 patent specification. I also understand that in November, 2009, TimeBase changed the inventors for the ‘228 patent, claiming that the inventors of all of the claims of the ‘228 patent should be the same three inventors listed on the ‘592 patent—Christoph Schnelle, Abha Lessing, and Peter Mariani. I further understand that TimeBase has stated that all of the claims pertaining to the invention of the ‘592 patent and the ‘228 patent were conceived on October 14, 1996 by these three inventors.

For convenience, I have attached a copy of the Australian patent application as Appendix 3; a copy of the PCT application as Appendix 4; a copy of the ‘592 patent as Appendix 5; a copy of the ‘592 reexamination certificate as Appendix 6; and a copy of the ‘228 patent as Appendix 7.

B. MEANING OF CLAIM TERMS

I understand that the Court has construed several terms and phrases of the claims of the patents in its Claim Construction Order. In particular, I understand that the Court has issued the following claim construction rulings:

Term or Phrase	Court's Construction
Multidimensional Space	An area not having boundaries and that is capable of, or involves, more than three dimensions, where the dimensions are axes along which, or along some combination of which, point-to-point movement is allowed
Linking Means	Function: Logically connecting a block of text-based data to another specific block of text-based data Structure: Markup language that uses reference IDs, each of which uniquely identifies a specific block of text-based data
Link	A connection between portions of text-based data utilizing a markup language
Each	Every one considered separately
Attributes	Characteristics or descriptors of text-based data
Graphical Representation	A pictorial presentation or pictorial display, which may include some textual information
Displaying	Showing on an electronic video device capable of changing in real time in response to inputs, such as a CRT monitor, an LCD monitor, or a projector and screen
Dividing	Separating into two or more suitable parts
Portion	A part of the text-based data to be published
Predefined Portion	A suitable part of the text-based data to be published that is chosen for storage at a particular point in the multidimensional space

I understand that the parties also have agreed on the construction of the following claim terms and phrases:

Term or Phrase	Parties' Agreed Construction
Amended	Altered or changed in some way
Modified	Altered or changed in some way

Term or Phrase	Parties' Agreed Construction
Means for Searching / Searching Means	Function: As set forth in the claims Structure: Software for locating text-based data using attributes, links, portions, words or phrases, or the equivalent
Step of Searching / Searching Step	Function: As set forth in the claims Structure: Using software to locate text-based data using attributes, links, portions, words or phrases, or the equivalent

For purposes of forming my opinions, I have adopted and applied these claim constructions. For terms and phrases that have not been construed by the Court and for which there is not already an agreed construction, I have applied the ordinary meaning that, in my opinion, would have been given to the term or phrase in question by a person of ordinary skill in the art as of January 31, 1997.

I reserve the right to supplement or amend any of my opinions set forth in this report based on any additional claim construction rulings by the Court or based on any additional agreements by the parties regarding the meaning of particular claim terms or phrases.

C. THE SUBJECT MATTER OF THE PATENTS

Both the '592 and '228 patents relate generally to systems and methods for publishing electronic information. The electronic publishing systems and methods described in the patents focus on text-based information that changes over time, particularly legislation. In general, the patents describe systems and methods that organize versions of text-based information (such as a medical record or a legislative Act) by dividing the text into portions and storing each portion as it changes, encoding the text

with markup languages, linking related portions of text to other portions, and using attributes in connection with a "multidimensional space" to organize, display, link, and navigate the portions of text contained in the multidimensional space. In the following sections, I focus my discussion on particular elements of the '228 patent that relate to my opinions on written description. As noted above, because the '228 patent fully incorporates the specification of the '592 patent, for convenience my citations are to the '228 patent only.

1. Multidimensional Space

One key element of the patented invention is a "multidimensional space." The Court has construed **multidimensional space** to mean:

> **An area not having boundaries and that is capable of, or involves, more than three dimensions, where the dimensions are axes along which, or along some combination of which, point-to-point movement is allowed.**

(Claim Construction Order, 11.)

The patent specification of the '228 patent (which incorporates the entire specification of the '592 patent) describes the concept of this multidimensional space. The claimed multidimensional space conceptually consists of "axes" and "points" along each axis. Each axis is a type of attribute, such as jurisdiction, type, section number, and effective date for a legislative Act. Each portion of text-based data within the multidimensional space is associated with a number of attributes, corresponding to the number of axes within the multidimensional space. The values of these attributes correspond to "points" along each axis. For example, the attribute values for a particular portion of a statute might be "California" for jurisdiction; "statute" for type; "§ 201" for

section number; and "January 1, 2003" for the initial effective date. Each point within the multidimensional space represents a combination of attribute values. Each portion of text-based data is assigned to the point within the multidimensional space corresponding to its specific attribute values.

In other words, according to the specification of the '228 patent, portions of text-based data are selected for storage as points in the multidimensional space. Attributes are assigned to each portion of text and, based on the values of these attributes, the portions of text are assigned to locations that become "points" or "nodes" in the multidimensional space. Once the portions are assigned to locations, the sequence of the portions along any "axis" is known.

An important feature of the multidimensional space is that the dimensions are "axes along which, or along some combination of which, point-to-point movement is allowed." (Claim Construction Order, 9.) In other words, the multidimensional space allows a user to navigate sequentially along each axis from one portion of text to the next or previous adjacent portion of text. As the specification of the '228 patent states, "[t]he effect of mapping nodes . . . is that a course . . . through the information represented in the three-dimensional space . . . can be easily plotted." ('228 patent, 12:28-30.) Based on these known coordinates, "it is possible to move easily between points in the multidimensional space . . . ." ('228 patent, 12:26-27.) The multidimensional space, therefore, is one in which a user can, through the use of a user interface, view a portion of text and move directly to any previous or next portion of text along any axis in the multidimensional space.

The first four figures of the ‘228 patent specification purport to describe the concept of a multidimensional space and movement along the axes within the space; however, rather than achieving this difficult task, the figures simply display a bounded, three-dimensional space, populated with a very small number of points. Indeed, the ‘228 patent specification concedes that although the claimed multidimensional space has *more than* three dimensions, or axes (‘228 patent, 12:12-14), the figures illustrate the concept by using a three-dimensional grid for convenience (‘228 patent, Figs. 1-4, 15:10-11 (“To simplify the diagram, only three axes are illustrated . . . .”)). In Figure 1 of the ‘228 patent (shown below), for example, the three-dimensional space concept is “represented by a layered grid.” (‘228 patent, 12:17.) The various axes or pathways are shown as vertical and horizontal lines, but could appear “at all angles and inclines.” (‘228 patent, 12:20.) The intersections of the lines of the grid are “points” (or “nodes”) where portions of text are located. (‘228 patent, 12:21-24.)

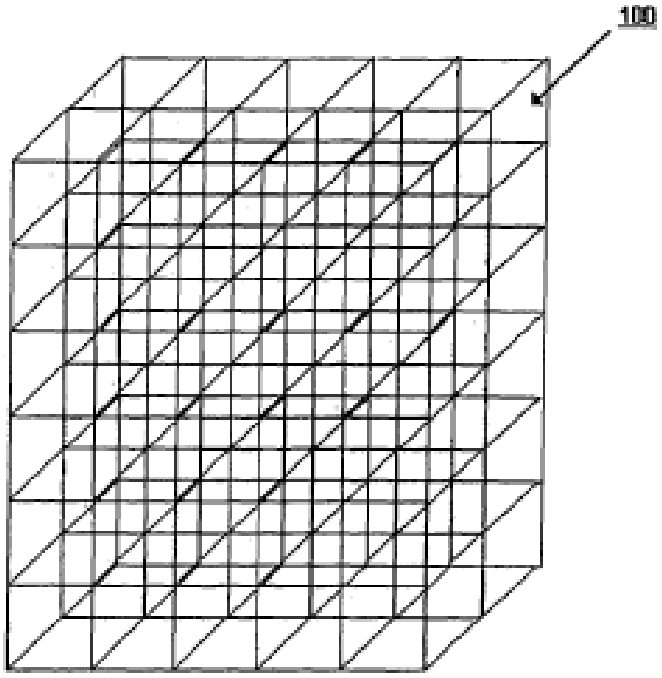

Fig. 1

Figure 3 of the ‘228 patent, which is shown below, illustrates a three-dimensional space that is populated with portions of text-based data depicted by points on the axes located at the nodes (intersections between axes). The darker lines on Figure 3 depict point-to-point movement between the portions of text. This movement is from point-to-point along axes (dimensions) in the three-dimensional space. In this example, “the user begins the course **320** at node **302** and progresses vertically downward to the fourth node **304**.” (‘228 patent, 12:30-32.)

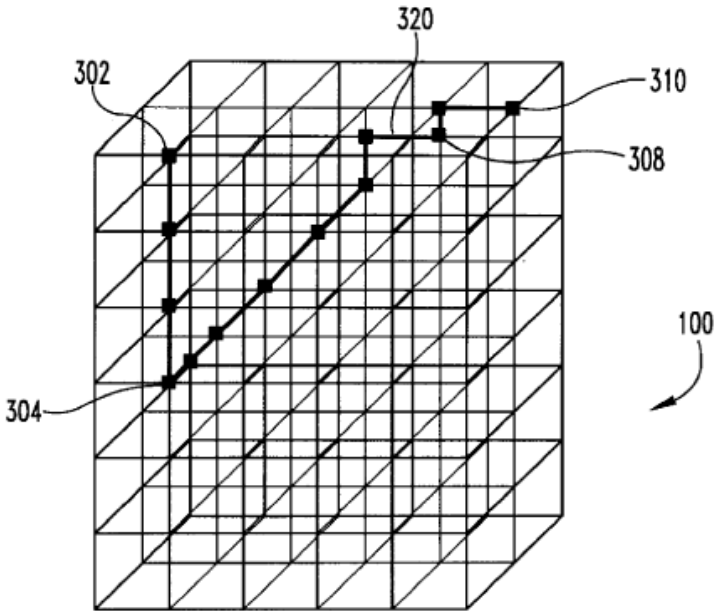

Fig. 3

Figure 4 of the ‘228 patent (shown below) shows specifically how an end-user can navigate portions of legal text using the conceptual cube depicting the three-dimensional space. (‘228 patent, 14:53-55.) In particular, the patent states that:

> In FIG. **4**, the X-, Y-, and Z-axes indicate time (Time), the legislative provision (location), and type (eg, legislation=L, cases=C, and journal articles=J). To simplify the diagram, only three axes are illustrated[;] however, other axes may be included dependent upon the number of dimensions of the space. In the first embodiment, the multidimensional space also includes another three axes: jurisdiction=U, subject=V, and depth=W. Thus, the space according to the first embodiment has six dimensions. In the six-dimensional case, it is possible to move along each axis and at the points of intersection change direction, as well as find and/or follow new or additional information.

(‘228 patent, 15:8-19.) The patent then goes on to describe how the end-user begins at node **402**, follows a path through nodes **404**, **406**, and **408**, then selects Section 4 of the legislation as of January 1, 1995 by moving to node **410**, from which the end user could

move to other information by moving to nodes **412** or **414**. (‘228 patent, 15:20-45.) The patent states that “[t]he foregoing is only one possible route through the multidimensional space of information,” and that “[o]ther more complicated and interrelated pathways involving axes U, V and W are possible.” (‘228 patent, 15:39-42.)

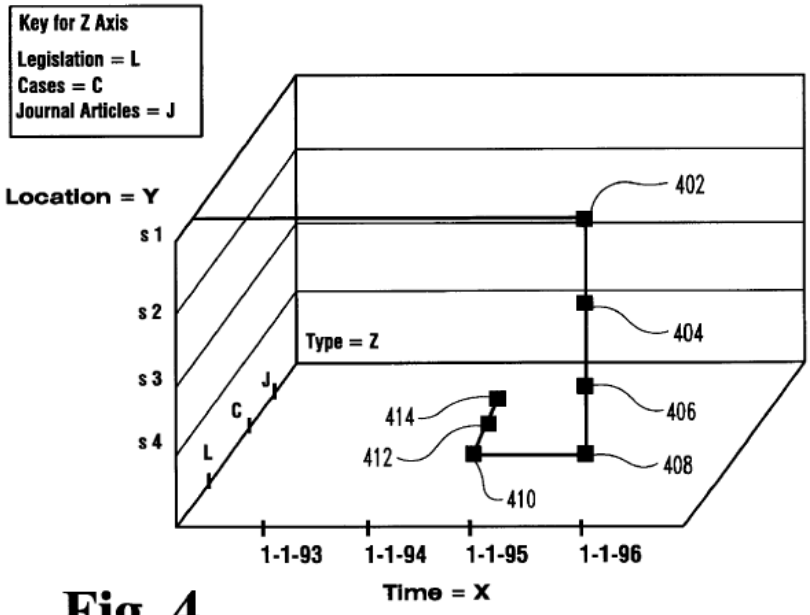

Fig. 4

According to the ‘228 patent, this movement between portions along pathways “is a significant functional aspect of the embodiments of the invention.” (‘228 patent, 12:23-24.)

2. Graphical Representation of a Multidimensional Space

Two independent claims of the ‘228 patent specifically involve a “graphical representation” of the patent’s multidimensional space. Claims 24 and 36 of the ‘228 patent both claim methods that require a display of a graphical representation of the multidimensional space.

Claim 24 claims:

> 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.**

('228 patent, 164:60-67, 165:1-22 (emphasis added).)

Similarly, claim 36 claims:

> 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 a 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.

('228 patent, 165:60-63, 166:1-19 (emphasis added).)

From the above claim language, it is clear that a key element of the methods of claims 24 and 36 is a display of a graphical representation of a multidimensional space. Claims 25-35 and claims 37-48 depend on claims 24 and 36 and therefore also include this requirement for a graphical representation of a multidimensional space.

In addition to its construction of "multidimensional space," the Court also construed two other terms relevant to the display of a "graphical representation of a multidimensional space" in claims 24 and 36 and their accompanying dependent claims. First, the Court construed graphical representation to mean:

> **a pictorial presentation or pictorial display, which may include some textual information.**

(Claim Construction Order, 25.) Second, the Court construed displaying to mean:

> **showing on an electronic video device capable of changing in real time in response to inputs, such as a CRT monitor, an LCD monitor, or a projector and screen.**

(Claim Construction Order, 25.)

Taken together, these elements of independent claims 24 and 36 require a method in which a multidimensional space (an area that is capable of or involves more than three dimensions) is pictorially displayed on a video device, such as a CRT monitor, an LCD monitor, or a projector and screen.

VII. APPLICABLE LEGAL STANDARDS

I have been informed of the legal standards relating to a person of ordinary skill in the art and to the written description requirement. In this section, I set forth my general understanding of the applicable legal standards. For purposes of my report, I assume that these legal standards are correct.

A. PERSON OF ORDINARY SKILL IN THE ART

I understand that the determination of the hypothetical person of ordinary skill in the art is a finding of fact. In addition, I understand that the person of ordinary skill in

the art is a fictitious person presumed to have the typical level of skill of practitioners in the field and is presumed to be aware of all pertinent prior art in the field. I also understand that the level of skill in the art is measured as of the effective filing date of the patent application.

I understand that many factors are considered in defining a hypothetical person of ordinary skill in the art including: (1) the types of problems encountered in the art; (2) the prior art solutions to those problems; (3) the rapidity with which innovations are made; (4) the sophistication of the technology; and (5) the educational level of active workers in the field. I understand that not each of these factors must be considered in every case and that additional factors are often relevant.

I understand that TimeBase and West generally agree that a person of ordinary skill in this art as of January 31, 1997 would have a computer science or similar technical degree, with experience working with database technology while obtaining their degree, or, if the person did not have this experience during their academic training, the commensurate experience in research or development in industry, academia, or an institutional equivalent in this area. Based on my knowledge and experience working in the field of database systems and electronic publishing, I agree with this assessment.

B. WRITTEN DESCRIPTION

I understand that whether a patent specification satisfies the written description requirement is a question of fact that is determined on a claim-by-claim basis. This question of fact, I understand, is an objective inquiry that is analyzed from the

perspective of a person of ordinary skill in the art as of the effective filing date of the patent.

I understand that the purpose of the written description requirement is to ensure that the public is put on notice of the boundaries of the invention being claimed and that the claims do not overreach the scope of the inventor's contribution to the field of art as described in the patent specification.

I understand that, under the written description requirement, the test is whether the disclosures in the patent reasonably convey to those skilled in the art that the inventor had possession of the claimed subject matter as of the effective filing date. Therefore, an objective inquiry must be made into the four corners of the specification from the perspective of a person of ordinary skill in the art. The specification must describe an invention in a way that is understandable to a person of ordinary skill in the art and show that the inventor actually invented the invention claimed.

I understand that the level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology. For example, I understand that the patentee may need to provide more details for complex, new, or unpredictable technologies than for comparatively simple, old, or predictable technologies. I understand that it is not sufficient for purposes of the written description requirement that the disclosure, when combined with the knowledge of persons of skill in the art, would have lead one to speculate as to modifications that the inventor might have envisioned, but failed to disclose. I understand, for example, that the question is not whether a

claimed invention would have been obvious based on what is disclosed in the specification. I also understand that a mere wish or plan for obtaining the claimed invention does not amount to an adequate written description. Instead, the specification itself must describe the invention, and do so in sufficient detail that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of the effective filing date being sought. Furthermore, I understand that it is not sufficient to disclose a small subset of a claimed range when the disclosure of the small subset would not convey to a person of ordinary skill in the art that the inventor had possession of the entire range. I understand that this is particularly true when the variations over the entire range are technically unpredictable.

VIII. OPINIONS

A. INTRODUCTION

In my opinion, the ‘228 patent lacks a written description of independent claims 24 and 36, as well as their dependent claims 25-35 and 37-48. In particular, the specification of the ‘228 patent does not disclose the “graphical representation of a multidimensional space” and a method of displaying this graphical representation on a video display as required by claims 24 and 36 and the accompanying dependent claims. In my opinion, there is nothing in the specification of the ‘228 patents that would suggest to a person of ordinary skill in the art that the inventors were in possession of these method steps in January 1997, the earliest possible effective filing date of ‘228 patent, or even in October 2000, the actual filing date of the original ‘228 patent application.

In forming my opinions on the written description of claims 24 and 36, I have reviewed the entire specifications of both the ‘592 and ‘228 patents and the specifications for the original Australian application and the PCT application. As noted above, I understand that TimeBase contends that all of the matter claimed by the ‘228 patent claims was fully disclosed in the ‘592 patent application. I further understand that the two patents now share the same inventors and that TimeBase contends that the claims of the ‘228 patent are entitled to the same priority date as the ‘592 patent. I understand that for TimeBase to obtain the priority date of January 31, 1997 for the ‘228 patent claims, those claims must have been adequately disclosed not only by the specification of the ‘592 patent (filed as United States Patent Application No. 90/108,999 on July 1, 1998), but also must have been disclosed by PCT Patent Application No. PCT/AU98/00050 filed January 30, 1998, and Australian Patent Application No. 04892 filed January 31, 1997, to which the ‘592 patent claims priority.

I understand that the ‘228 patent specification contains additional information not disclosed by the ‘592 patent specification or the Australian application to which the ‘592 patent claims priority. I understand that if the ‘228 claims are supported only by the information that appears solely in the ‘228 patent application, then TimeBase would not be entitled to the filing date of the ‘592 patent or its Australian counterpart.[1] Nevertheless, to be thorough, I have reviewed the entire ‘228 specification, and in my

[1] My understanding is that if TimeBase argues that claims 24 and 36 were disclosed by material unique to the ‘228 patent specification, then TimeBase necessarily revokes its earlier claims to the priority date of the ‘592 patent. If TimeBase revokes that claim, I may have additional opinions to offer regarding the validity of the ‘228 patent.

opinion neither the ‘228 patent specification, the ‘592 patent specification, nor the Australian application discloses the invention claimed in claims 24 and 36 of the ‘228 patent and their accompanying dependent claims. Therefore, for convenience, in my discussion below I focus on the entire ‘228 patent, which already includes the disclosures of the earlier applications.

B. THE METHOD OF CLAIMS 24 AND 36 IS NOT DISCLOSED IN THE ‘228 PATENT SPECIFICATION

In forming my opinions, I specifically sought to determine whether a person of ordinary skill in the art as of the time of any of the filing dates would find a disclosure in the ‘228 patent specification of the invention claimed by claims 24 and 36 and would understand that the inventors were in possession of the invention. Both of these method claims require a “graphical representation of a multidimensional space” and the method of displaying portions of text as a graphical representation of the multidimensional space. As described in section VI.C.2, under the Court’s claim construction, this means that the multidimensional space must be pictorially displayed on a video device, such as a CRT monitor, an LCD monitor, or a projector and screen. The multidimensional space as construed by the Court is “an area not having boundaries and that is capable of, or involves, more than three dimensions.” The Court construed dimensions to be “axes along which, or along some combination of which, point-to-point movement is allowed.” Using these definitions, a “graphical representation of a multidimensional space” is a pictorial display on a video device of an area not having boundaries, showing

more than three axes along which, or along some combination of which, point-to-point movement is allowed.

As explained in more detail below, I searched each and every part of the one-hundred-page-plus ‘228 patent for a disclosure of a pictorial display of a multidimensional space and a method for displaying the portions of text as a graphical representation of the multidimensional space on a video display. I found none. As described below, my analysis first looked at the general text of the specification and then examined all of the figures, the screen shots, the tables, and other appendices, together with their accompanying text. A chart showing my findings is attached to this report as Appendix 8.

1. The General Text of the Specification for the ‘228 Patent Does Not Discuss or Disclose a Graphical Representation of a Multidimensional Space

In undertaking my analysis, I first reviewed the specification of the ‘228 patent to determine whether there was any explicit discussion of a “graphical representation of a multidimensional space.” In reviewing the specification, I did not find any such explicit discussion. In fact, those specific words literally do not appear anywhere in the text of the ‘228 patent other than claims 24 and 36 themselves. In addition, these specific words in the claim were not added until August 2006 and are not part of any of the patent applications as originally filed.

Next, I reviewed the text of the specification of the ‘228 patent to determine whether there might be any disclosure that a person of ordinary skill in the art would understand to be a description of the graphical representation of a multidimensional space

required by claims 24 and 36 and the claimed method of display. I could find no such disclosure. No aspect of the specification discloses or describes an electronic publishing system that includes a graphical representation of a multidimensional space. While much of the specification is devoted to describing how a user might navigate in a conceptual space containing three dimensions using a primarily text-based user interface, nothing in the specification describes the graphical depiction of a multidimensional space on a video display. In particular, no aspect of the specification discloses or describes a method for electronically publishing or searching text-based data, where a space with more than three dimensions is displayed pictorially on a video device. In my opinion, a person of ordinary skill in the art as of the claimed effective date of January 31, 1997 or any of the other filing dates would have absolutely no idea that the inventors possessed such a method.

Furthermore, the video displays described by the specification primarily utilize off-the-shelf text retrieval software, such as Folio Views or Dynatext. To the best of my knowledge, these software packages are not capable of pictorially displaying a multidimensional space (having more than three, and at least six or seven dimensions). In short, in my opinion, nothing in the general text of the specification depicts or describes a graphical representation of a space with more than three dimensions or the claimed method of displaying portions of text as a graphical representation of the multidimensional space.

2. None of the Figures in the Specification Disclose or Describe a Graphical Representation of a Multidimensional Space

I next reviewed each of the figures in the ‘228 patent and the text in the specification pertaining to each figure. Nothing in these figures would have conveyed to a person of ordinary skill in the art that the inventors possessed the claimed “graphical representation of a multidimensional space” in January 1997 or any of the other filing dates.

The fact that the inventors portrayed a bounded, three-dimensional space in Figures 1–4 does not change my opinion. For convenience, Figure 1 is shown below:

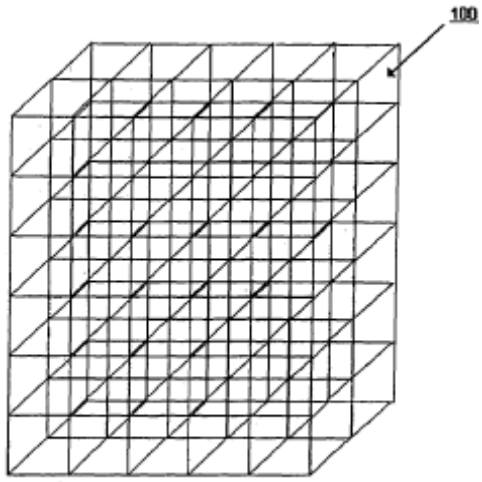

Fig. 1

The inventors explained that although Figure 1 conceptually represents the multidimensional space by a “layered grid” containing vertical and horizontal lines, “in *reality* (in the case of more than two dimensions)” the lines would be at “all angles and inclines.” (‘228 patent, 12:16-20 (emphasis added).) In other words, the inventors chose to rely on a three-dimensional space with a “layered grid,” even though this depiction in reality does not disclose or describe the claimed multidimensional space. Figures 1–3 do

not show a multidimensional space because a multidimensional space must be capable of or involve *more than* three dimensions. Moreover, this "layered grid" has finite edges, showing that it is bounded, whereas the multidimensional space of the patents is an "area not having boundaries." Furthermore, Figures 1–3 do not purport to depict a display on any video screen or computer screen, as required by the claims of the patent. In short, a person of ordinary skill in the art would not understand that Figures 1–3 were intended to depict or describe a way of graphically displaying the claimed multidimensional space in a system for electronically publishing or searching text-based data. Instead, these figures appear to be conceptual diagrams meant only to help the reader of the patent understand how a bounded, three-dimensional space might be visualized.

Figure 4 of the '228 patent specification, shown below, also does not disclose a graphical representation of a multidimensional space:

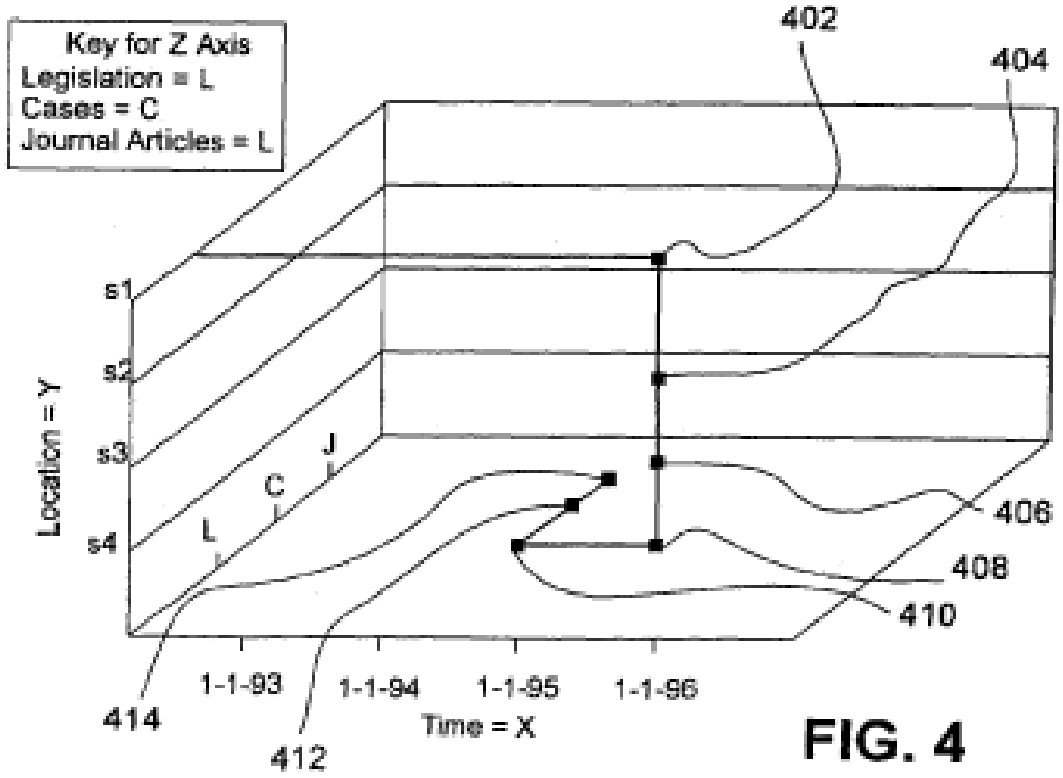

FIG. 4

The specification says that Figure 4 "illustrates the application of legal information to mapped nodes according to the first embodiment." ('228 patent, 8:29-30.) According to the specification, Figure 4 "provides an example of how legal information is navigated by an end user." ('228 patent, 14:54-55.) Figure 4 shows seven pieces of legislation that are located (assigned, or mapped) to points on the three-dimensional grid depending on their attributes. Once again, the inventors chose to portray a three dimensional space with a "layered grid," even though this depiction does not in reality depict the claimed multidimensional space.

Figure 4 and the accompanying text would not demonstrate to a person of ordinary skill in the art that the inventors possessed the invention of pictorially displaying numerous dimensions. To the contrary, the inventors explained: "To simplify the diagram, *only three axes are illustrated*, however, other axes may be included dependent

upon the number of dimensions of the space." ('228 patent, 15:10-11 (emphasis added).) Here again, the inventors did not disclose anything that would work for more than three dimensions.

Furthermore, Figure 4 does not purport to depict a display on any video screen or computer screen, as required by claims 24 and 36 of the '228 patent. A person of ordinary skill in the art would not understand that Figure 4 was intended to depict or describe a way of displaying a graphical representation of a multidimensional space in a system for electronically publishing or searching text-based data. Instead, this appears to be a conceptual diagram meant only to help the reader of the patent understand how a three-dimensional space might be visualized. In sum, like Figures 1–3, Figure 4 does not depict a graphical representation of a multidimensional space or the claimed method of displaying portions of text as a graphical representation of the multidimensional space.

The computer screen illustrations ("screen shots") in Figures 7–17 also do not depict a graphical representation of a multidimensional space. These screen shots all show a Folio Views user interface containing some standard Windows features, such as drop down menu buttons. The information within these ordinary windows is primarily textual. For example, Figure 13 is shown below:

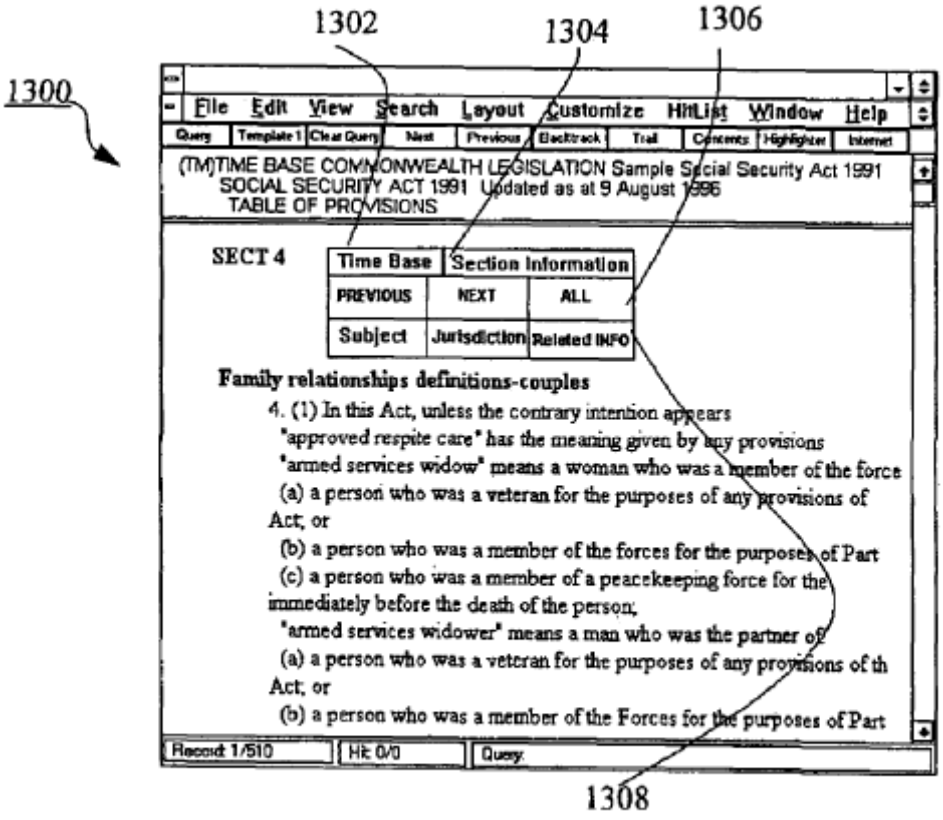

Fig. 13

Figure 13 shows the text of a portion of legislation, namely "Family relationships definitions-couples." In addition to the text of the legislation and the standard Windows-type menus along the top, Figure 13 shows a "toolbar," labeled 1302. This toolbar contains eight "buttons," which are described in the '228 patent specification at lines 17:62–18:13. These buttons are provided "for accessing time based information" ('228 patent, 17:63-64) and allow a user to select the previous, next, or all versions of this piece of legislation. By clicking on other buttons, a user may view other portions of text-based data, such as "sections dealing with a similar subject, or similar sections in other jurisdictions, or related information such as cases and articles on or about the section" (label 1308). ('228 patent, 18:6-8.) The toolbar also allows a user to view an "overview"

of the portion of text-based data (label 1304). (‘228 patent, 18:1.) But all of this information is presented textually, not graphically. For example, Figure 14 provides a textual display of the information that appears if the “Section Information” (label 1304) button is selected. (‘228 patent, 18:14-20). Figure 15 similarly provides a textual display of the information that appears when the “Previous” button is selected. (‘228 patent, 18:21-28). In short, this toolbar, and the information that appears when these buttons are selected, are not graphical representations of a multidimensional space.

Finally, Figures 18–20 and 22A–C do not depict a graphical representation of a multidimensional space. Figure 18 is representative of these figures, and is shown below:

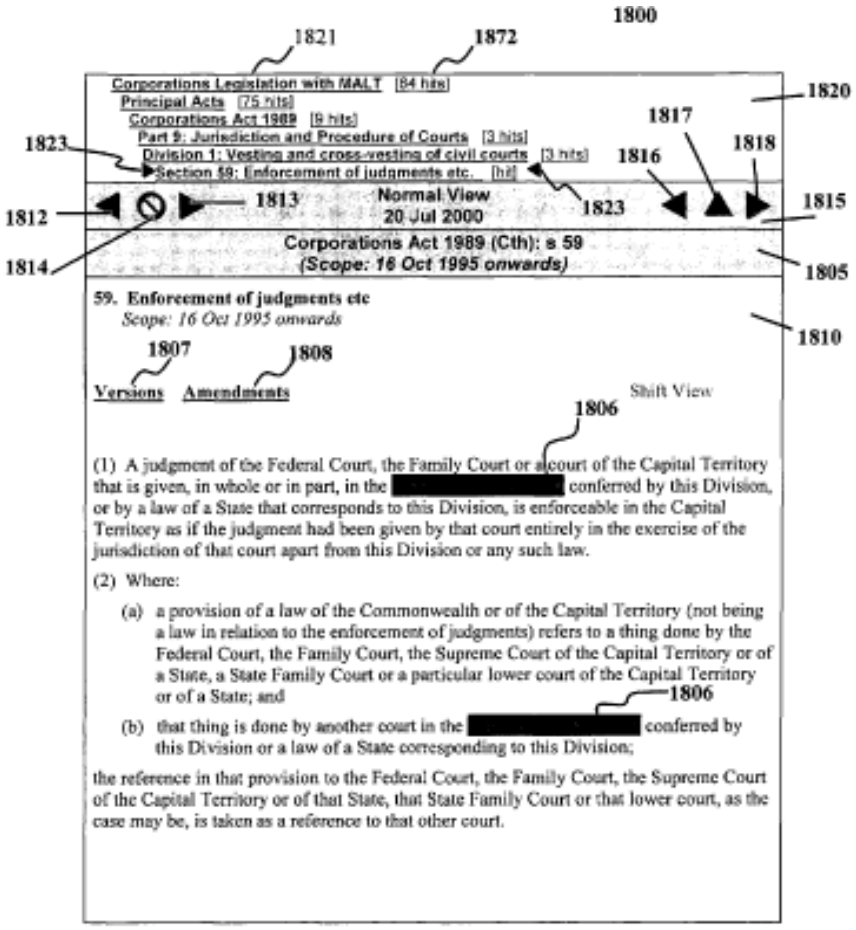

Fig. 18

The specification of the '228 patent says that Figure 18 "is a screen shot of a Normal axis view of a MALT publication (with a search mode enabled) in accordance with an embodiment of the present invention." ('228 patent, 8:42-44.) Figure 18 shows "a screenshot **1800** depicting a section of legislation in accordance with an embodiment of the invention." ('228 patent, 22:26-27.) The "content frame" is at 1810, and it "displays the content of the current node." ('228 patent, 22:28-29.) The "content anchor" is shown at 1805, and it "displays the locators for the current content provision in a user friendly form . . . ." ('228 patent, 22:34-35.) The "reference frame" is shown at 1820, and it "contains a set of links **1821** corresponding to the members of a viewing axis associated with the current base node." ('228 patent, 22:43-44.) Label 1823 indicates a "reference marker" which shows the link currently selected. ('228 patent, 22:45.) The buttons 1816 and 1818 are for navigating the sequential axis. ('228 patent, 22:55.) The buttons 1812 and 1813 "allow access to the next or previous occurrence of this text [that is the search result]." ('228 patent, 22:63-64.) Links 1807 and 1808 allow the user to select different viewing axes: Versions and Amendments. ('228 patent, 23:2-3.)

It is readily apparent that this screen is primarily textual, not pictorial.[2] Moreover, the primary content of Figure 18 is a single portion of text-based data. This screen does

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[2] I understand that the PTO rejected claims in the '228 patent covering this "display" of a multidimensional space, saying that they were obvious in view of (among others) United States Patent No. 6,144,962 ("Weinberg," attached hereto as Appendix 9). (Office Action Mailed July 8, 2004, TB040986-87, attached hereto as Appendix 10). I further understand that TimeBase defended these claims by attempting to distinguish *Weinberg*, telling the PTO that *Weinberg* "provides a graphical view of dynamically changing web site links," which is "in contrast to the claimed invention, which provides a ***non-***

not pictorially display a multidimensional space or a method of displaying portions of text as point on a graphical representation of the multidimensional space.

The arrows (called "buttons" by the specification) are also not a graphical representation of a multidimensional space. These arrows provide a user with a mechanism for moving to another portion of text-based data. The presence of these small icons does not transform this screen shot into a pictorial representation of a multidimensional space, with points representing the related portions of text-based data.

For the same reasons, there is no indication whatsoever that Figures 19–20 or 22A–C are graphical representations of a multidimensional space. None of these figures disclose a pictorial depiction of an area not having boundaries and that has, or involves, more than three dimensions.

In sum, in my opinion, none of the Figures of the '228 patent or the accompanying text describes the claimed invention. None of them describe or disclose a graphical representation of a multidimensional space of even four dimensions, much less the unbounded space claimed by the patent. Indeed, one of the purported advantages of the invention of the '228 patent is its ability to accommodate many dimensions. For example, the specification states that—beyond the three dimensions shown in the figures—"other axes may be included dependent upon the number of dimensions of the

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graphical view of a fixed pre-prepared multidimensional dataset." (Amendment After Office Action Mailed July 8, 2004, TB040951 (emphasis added), attached hereto as Appendix 11). These earlier statements from TimeBase comport with my opinion that the inventors did not possess the invention of a display of a graphical representation of a multidimensional space.

space." ('228 patent, 15:11-13.) In addition, the specification states that "any number of axes may be displayed and navigated without increasing the complexity of the screen view . . . ." ('228 patent, 20:14-15.) Elsewhere, the '228 patent describes as one of the advantages of its method of electronic publication is that information "is able to be accessed under any combination of dimensions from the multi-dimensional space . . . ." ('228 patent, 11:14-16.) Yet there is no depiction or discussion in the '228 patent of what a graphical representation of a multidimensional space containing even four—much less six, seven, or more—would look like. None of the figures or screen shots contained in the '228 patent, for example, provide a pictorial representation of the points of a multidimensional space and their location within the space that involves four, five, six, or more dimensions. The person of skill in the art would not even know what such a space might look like. The '228 patent specifically declines to depict, even conceptually, a space with more than three dimensions. Instead, the patent acknowledges the difficulty, if not the impossibility, of graphically representing a multidimensional space containing a large number of dimensions. In my opinion, the inventors went out of their way to make clear that they did *not* possess this invention. Consequently, a person of ordinary skill in the art would not have concluded that these inventors invented the step of displaying a graphical representation of a multidimensional space in an electronic system for publishing and searching text-based data.

Furthermore, even if the figures in the '228 patent *were* a graphical representation of a multidimensional space the specification of the '228 patent never describes displaying these figures on a computer screen, and never describes using this graphical

display in a system for electronically publishing or searching text-based data. There simply is no description in the text of the specification of any such display, and there is no statement that any of the figures in the specification are intended to be a graphical representation of a multidimensional space for display on a computer screen.

3. The '228 Patent's Appendices A–E Do Not Disclose a Graphical Representation of a Multidimensional Space

I also reviewed all of the Appendices attached to the '228 patent in columns 33–162. None of these Appendices describe or discuss the graphical representation of a multidimensional space. These Appendices contain: a description of research on Australian legislation; Document Type Definitions (DTDs); a relational database design; and a "keying guide" for Australian documents. None of these Appendices describe how a multidimensional space might be pictorially displayed on a video screen. In short, nothing in these Appendices describes a graphical representation of a multidimensional space, or the method of using a graphical representation of a multidimensional space required by claims 24 and 36 of the '228 patent and their dependent claims.

C. GRAPHICALLY DISPLAYING A MULTIDIMENSIONAL SPACE WOULD BE COMPLEX AND WOULD REQUIRE A DETAILED DISCLOSURE

Finally, in my opinion, a person of ordinary skill in the art in January 1997 (or any of the later filing dates) would have regarded the display of a graphical representation of the claimed multidimensional space as a complex task. Simultaneously displaying six, seven, or even dozens of dimensions of text-based data in a graphical format on a computer screen is far from trivial and poses numerous problems that were recognized by

persons of ordinary skill in the art in January 1997. While displaying up to three dimensions on a computer screen was known in the art at that time, displaying four or more dimensions was not inherently known. Indeed, persons of ordinary skill in the art were not even generally working on this issue, and there certainly was no commonly-understood way to display four, five, six or more dimensions graphically on a computer screen. The few computer scientists who were working on this problem were trying widely differing approaches that were in various experimental stages.

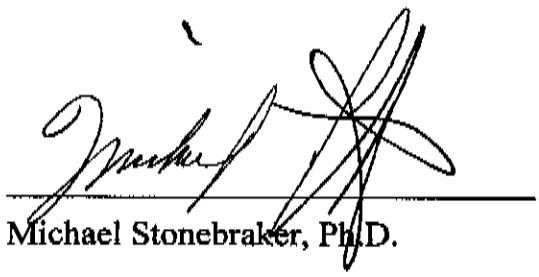
In addition to the difficulty of graphically displaying a multidimensional space generally, the display of the claimed multidimensional space of claims 24 and 36 of the ‘228 patent would have been even more complex. Those claims require a graphical display of a multidimensional space that includes “axes along which, or along some combination of which, point-to-point movement is allowed.

In short, there is not any clear and obvious way of depicting more than three spatial dimensions in a three-dimensional world, and trying to do so is a highly complex and unpredictable problem.

Given these challenges, a person of ordinary skill in the art would be looking for an especially clear and detailed description of the invention claimed in claims 24 and 36 of the ‘228 patent. In my opinion, not only does the ‘228 patent specification fail to provide any disclosure of the claimed video display, but it certainly does not provide a clear and detailed description of such a display. Such a clear and detailed description would have been required for a person of skill in the art to understand that the inventors actually possessed their claimed graphical representation of a multidimensional space and

the claimed method of displaying portions of text as a graphical representation of a multidimensional space on a video display. Because the inventors did not do so, this further supports my opinion that claims 24 and 36 of the ‘228 patent and their dependent claims do not meet the written description requirements of 35 U.S.C. § 112.

Dated: February 28, 2011



Michael Stonebraker, Ph.D.

APPENDIX 1

Biographical Sketch - Michael Stonebraker

MIT Computer Science and Artificial Intelligence Laboratory
32 Vassar St., room 32-G922
Cambridge, MA. 02139
Tel (603) 714-4451
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Areas of Special Interest
Database systems, data warehouses, federated database systems, database systems for new application areas, operating systems

Professsional Preparation:
B.S.E.E. - Princeton University 1961
PhD Computer Information and Control Engineering - Univ. of Michigan 1971

Appointments
University of California, Berkeley - Asst. Professor 1971-1976,
Assoc. Professor 1976-1982,
Professor 1982-1994,
Professor of the Graduate School 1994-1999.
Massachusetts Institute of Technology - Senior lecturer 2001-2002
Adjunct Professor 2002-

Ingres Corporation - Founder and Chief Technology Officer - 1980-1992
Illustra Corporation - Founder and Chief Technology Officer - 1992-1996
Informix Corporation - Chief Technology Officer - 1996-2000
Cohera Corporation - Founder and Chief Technology Officer - 1997-2001
Streambase, Inc. - Founder and Chief Technology Officer - 2003- 2007
Vertica Systems, Inc. - Founder and Chief Technology Officer - 2005 –
Goby, Inc. - Founder and Chief Technology Officer – 2008 –
VoltDB, Inc. – Founder and Chief Technology Officer – 2009 –
Paradigm4, Inc. - Founder and Chief Technology Officer – 2009 –

Awards and Honors:
ACM Software System Award 1988
ACM SIGMOD Innovation Award 1992
National Academy of Engineering 1998
IEEE John von Neumann Medal 2005
American Academy of Arts and Sciences 2010

Relevant Publications

Michael Stonebraker, Jacek Becla, David Dewitt, K-T Lim, David Maier, Oliver Ratzsberger, Stan Zdonik, “Requirements for Science Data Bases and SciDB,” Proc. 2009 CIDR Conference, Asilomar, Ca., Jan 2009.
Michael Stonebraker, Sam Madden, Dan Abadi, Stavros Harizopoulos, Nabil Hachim, Pat Helland, “The End of an Architectural Era (It’s Time for a Complete Rewrite),” Proc. 2007 VLDB Conference, Vienna, Austria, Sept 2007.

Michael Stonebraker, Chuck Bear, Ugur Cetintemal, Mitch Cherniack, Stavros Harizopoulos, John Lifter, Jennie Rodgers, Stan Zdonik, "One Size Fits All? Part 2: Benchmarking Studies", Proc 2007 CIDR Conference, Asilomar, Ca., Jan 2007
Michael Stonebraker, Daniel Abadi, Adam Batkin, Xuedong Chen, Mitch Cherniack, Miguel Ferreira, Edmond Lau, Amerson Lin, Sam Madden, Elizabeth O'Neil, Pat O'Neil, Alex Raison, Stan Zdonik, "C-Store: A Column-oriented DBMS," Proc. 2005 VLDB Conference, Trondheim, Norway, Sept 2005.
Michael Stonebraker, Ugur Cetintemel, "One Size Fits All: An Idea Whose Time Has Come and Gone," Proc. 2005 ICDE Conference, Tokyo, Japan, April 2005.

Other Publications

Hari Balakrishnan, Magda Balazinska, Don Carvey, Ugur Cetintemel, Mitch Cherniack, Christian Convey. Eddie Galvez, Jon Salz, Michael Stonebraker, Richard Tibbetts, Stan Zdonik, "Retrospective on Aurora," VLDB Journal 13(4), p370-383 (2004)
Daniel Abadi, Don Carvey, Ugur Cetintemel, Mitch Cherniack, Christian Convey.Sangdon, Michael Stonebraker, Nesime Tatbul, Stan Zdonik, "Aurora: A New Model and Architecture for Data Stream Processing," Proc. 2002 VLDB Conference, Hong Kong, China, August 2002.
Michael Stonebraker, Paul M. Aoki, Witold Litwin, Avi Pfeffer, Adam Sah, Jeff Sidell, Carl Staelin, Andrew Yu, "Mariposa: A Wide-Area Distributed Database System," VLDB Journal 5(1), p48-63 (1996).
Michael Stonebraker, Greg Kemnitz, "The Postgres Next Generation Database Management System," CACM 34(10), p78-92 (1991).
Michael Stonebraker, Eugene Wong, Peter Kreps, Gerald Held, "The Design and Implementation of INGRES," TODS 1(3), p189-222 (1976).

Synergistic Activities:
Wrote several major public domain DBMS prototypes, including C-Store, Ingres and POSTGRESQL. The latter system is currently widely used as a teaching instrument in universities and forms the basic for several commercial DBMS products.
Have founded the New England Database Symposium (NEDS) as a mechanism for Boston-area DBMS researchers to network and collaborate.
Have produced 4 editions of the "Red Book" - an edited collection of papers that forms the core readings in many graduate database courses.
Have organized (in conjunction with Jim Gray) four self assessments (roughly every 5 years) of the DBMS field by senior researchers.
Have started (in conjunction with Jim Gray and David Dewitt) the Conference on Data Systems Research (CIDR) - a conference oriented toward practical research in data systems.

Collaborations:) Hari Balakrishnan (MIT), Magda Balazinska (Washington), Jacek Becla (SLAC), Mike Carey (UC Irvine), Ugur Cetintemal (Brown), Mitch Cherniak (Brandeis), David Dewitt (Microsoft), Joey Hellerstein (Berkeley), Steven Kahn (SLAC), K-T Lin (SLAC), Sam Madden (M.I.T.), Dave Maier (Portland State), Jignesh Patel (Wisconsin), Oliver Ratzesberger (eBay), Jennifer Widom (Stanford), Stan Zdonik (Brown)

PhD Advisor: Dr. Arch Naylor (Michigan) - now retired

Completed PhD students: (sample from more than 20 completed PhD students) Gerald Held (until recently Vp/ Eng'g of Oracle Corp.), Robert Epstein (founder and until recently VP/Eng'g of Sybase Corp.), Paula Hawthorn (most recently VP/Eng'g of Informix Corp.), Dale Skein

(founder and CTO of Vitria Corp.), Mike Carey (UC Irvine), Margo Seltzer (Assoc Professor of Computer Science at Harvard), Anant Jhingran (Manager - Database Department of IBM Almaden Research Laboratory)

Expert Engagements:

2008 – ongoing	Continuation of 2003 *Positive Software Solutions, Inc. v. New Century Mortgage Corp*. software case
2007 – ongoing	*TimeBase Pty Ltd v The Thomson Corp*. et al., Civ. No. 07-1687 (JNE/JJG), United States District Court, District of Minnesota Expert witness for the defense; alleged patent infringement.
2007	*Diagnostic Systems Corp. v. Symantec Corp.; CA, Inc., F-Secure, Inc., NetIQ Corp., Quest Software Inc., NetScout Systems, Inc., and Motive, Inc.,* Case No. 806-cv-01211. United States District Court for the Central District of California. Expert witness for the defense – alleged patent infringement
2005	*Staffbridge Inc. v. Gary D. Nelson Assocs., Inc.,* Suffolk, Superior Court No. 02-4912 BLS Expert witness for the prosecution; alleged theft of intellectual property
2004-5	*Oracle Corp.v. Peoplesoft*, Case No. 20377-NC, Delaware Court of Chancery Expert witness for the defense; alleged patent infringement
2004	*PDX Inc, et al v. Escalante Solutions, et al* (Longs Drugs), 2:02cv01782, California Eastern District Court Expert witness for the defense; alleged theft of intellectual property
2003	*Positive Software Solutions, Inc. v. New Century Mortgage Corporation,* No. Civ.: A.3:03-CV-0257-N, N.D. Tex. Expert witness for the defense; alleged theft of intellectual property. Case went to arbitration, testified at the arbitration hearing.

APPENDIX 2

Appendix 2 to the Expert Report of Dr. Michael Stonebraker
Documents Reviewed
TimeBase v. Thomson

Publications		
THOM00196521	THOM00196527	Timothy Arnold-Moore, *Automatic Generation of Amendment Legislation*, ICAIL-97, Association of Computing Machinery (ACM), pp. 56-62, 1997.
THOM00196548	THOM00196553	HyunKi Kim, et al., *OOHS: An Object-Oriented Hypermedia System*, Proceedings of the COMPSAC '96, 20th Computer Software and Applications Conference, IEEE, pp. 497-501, 1996.
THOM00196741	THOM00196750	Timothy Arnold-Moore et al., *Managing a Digital Library of Information*, Association of Computer Machinery, pp. 175-84, 1997.
THOM00196751	THOM00196760	Timothy Arnold-Moore, *Automatically Processing Amendments to Legislation*, Association of Computing Machinery (ACM), pp. 297-306, 1995.
THOM00198807	THOM00198834	Timothy Arnold-Moore & Ron Sacks-Davis, *Models for Structured Document Database Systems.*
THOM00204044	THOM00204049	Charles W. Bachman, *The Programmer as Navigator*, Association of Computing Machinery, Vol. 16, No. 11, Nov. 1973.
THOM00204371	THOM00204649	Brian G. Travis & Dale C. Waldt, *The SGML Implementation Guide: A Blueprint for SGML Migration*, Springer, 1995.
THOM00206121	THOM00206150	Edward Sciore, *Versioning and Configuration Management in an Object-Oriented Data Model*, VLDB Journal, 3, pp. 77-106, 1994.
THOM00206435	THOM00206464	Timothy Arnold-Moore & Ron Sacks-Davis, *Databases of Legislation: The Problems of Consolidation*, Collaborative Information Technology Research Institute, CIRRI/TR-94-9, Dept. of Computer Science, RMIT, July 4, 1994.
THOM00206465	THOM00206480	Timothy Arnold-Moore et al., *Database Systems for Structured Documents*, CITRI/TR-94-11, Dept. of Computer Sciences, RMIT, Aug. 17, 1994.
THOM00206716	THOM00206732	Timothy Arnold-Moore et al., *The ELF Data Model and SGQL Query Language for Structured Document Databases*, CITIR/TR-94-13, Dept. of Computer Science, RMIT, Aug. 19, 1994.
THOM00208979	THOM00208987	Michael Caplinger, *Graphical Database Browsing*, Association of Computing Machinery (ACM), pp. 113-119, 1986.
THOM00209291	THOM00209307	Edward Sciore, *Multidimensional Versioning for Object-Oriented Databases*, Lecture Notes in Computer Science, Deductive and Object-Oriented Databases, Munich Germany, C. Delobel, M. Kifer, Y. Masunaga eds., Second Int'l Conference, DOOD '91, Munich, Germany, pp. 355-70, Dec. 1991 ("Sciore 1991")

Appendix 2 to the Expert Report of Dr. Michael Stonebraker
Documents Reviewed
TimeBase v. Thomson

Publications		
THOM00211947	THOM00211995	Ralph Kimball, *The Data Warehouse Toolkit: Practical Techniques for Building Dimensional Data Warehouses*, Katherine Schowalter ed., John Wiley & Sons, pp. xvii-19, 1996 ("Kimball 1996")
THOM00225508	THOM00225552	*Visualization of Web Sites and Hierarchical Data Structures*, Weinberg et al., U. S. Patent No. 6,144,962 (filed Apr. 11, 1997)
		The works of Edward R. Tufte, including but not limited to "Envisioning Information," (Graphics Press 1990) and Charles Joseph Minard's map showing Napoleon's March to Moscow

Other Materials	
Docket 219	*TimeBase Pty Ltd v. The Thomson Corp. et al.,* No, 07-01687, Markman Order (Written Opinion) (D. Minn. Jan. 21, 2011).
'592 Patent	*A System for Electronic Publishing*, Schnelle et al., U.S. Patent No. 6,233,592 (filed Jul. 1, 1998).
'592 Patent Reexamination Certificate	*A System for Electronic Publishing*, Schnelle et al., U.S. Patent Ex Parte Reexamination Certificate No. 6,233,592 (Reexamination Request filed Jan. 29, 2007).
'228 Patent	*Maltweb Multi-Axis Viewing Interface and Higher Level Scoping,* Lessing et al., U.S. Patent No. 7,293,228 (filed Oct. 12, 2000).
'592 Patent File History	*A System for Electronic Publishing*, Schnelle et al., U.S. Patent No. 6,233,592 File History (filed Jul. 1, 1998).
'228 Patent File History	*Maltweb Multi-Axis Viewing Interface and Higher Level Scoping,* Lessing et al., U.S. Patent No. 7,293,228 File History (filed Oct. 12, 2000). Including: Amendment After Office Action Mailed July 8, 2004, Application No.: 09/689,927, p. 28 (TB040924 – TB040961) Office Action Mailed July 8, 2004, Application No.: 09/689,927, pp. 6-7 (TB040980 – TB041003)
Australian Patent Application THOM00205986 – THOM00206106	*A System for Electronic Publishing*, Australian Patent Application, PO4892 (filed Jan. 31, 1997)

Appendix 2 to the Expert Report of Dr. Michael Stonebraker
Documents Reviewed
TimeBase v. Thomson

Other Materials	
PCT Application THOM00220403 – THOM00220514	*A System for Electronic Publishing*, Schnelle et al., PCT Application No. PCT/AU98/00050 (filed Jan. 30, 1998)
EPO Patent Application	European Patent Application No. 98901249.7-1527 Time Base Pty Limited (THOM00198698 – THOM00198806)
EPO File History	EPO Equivalent of U.S. Patent 6,233,592 File History
Transcript	Transcript of deposition of Christoph Schnelle, August 11, 2010
Transcript	Transcript of deposition of Peter Mariani, August 6, 2010
Transcript	Transcript of deposition of Nicola Jane Lessing, August 10, 2010
Interrogatory Responses	TimeBase's Supplemental Response of October 29, 2010 to Defendants' Interrogatories 1–5
Interrogatory Responses	TimeBase's Supplemental Response of October 29, 2010 to Defendants' Interrogatory 6

APPENDIX 3

AUSTRALIA

Patent Office
Canberra

I, LEANNE MYNOTT, TEAM LEADER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. PO 4892 for a patent by AUNTY ABHA'S ELECTRONIC PUBLISHING PTY LTD filed on 31 January 1997.

WITNESS my hand this
Sixteenth day of May 2000

LEANNE MYNOTT
TEAM LEADER EXAMINATION
SUPPORT AND SALES

S & F Ref: 366274

ORIGINAL

AUSTRALIA

Patents Act 1990

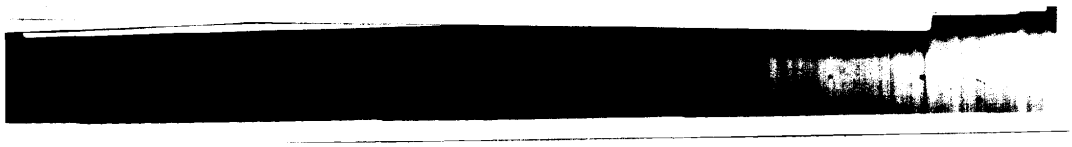
PROVISIONAL SPECIFICATION FOR THE INVENTION ENTITLED:

A System for Electronic Publishing

Name and Address of Applicant: Aunty Abha's Electronic Publishing Pty Ltd, an Australian company, ACN 064 360 658, of PO Box A2169, Sydney South, NSW, 2000, AUSTRALIA

This invention is best described in the following statement:

5805



A System for Electronic Publishing

The present invention relates to an electronic publishing system, and in particular to an electronic publishing system for the delivery of information which is not limited as to storage space and is not governed by predetermined pathways.

Conventionally, information is published in document form as a printed publication, or in electronic form but again using the document or book metaphor. In the past, the concept of a "multidimensional space" in electronic publishing has been intuitively understood (that is, instinctively desired). However, a comprehensive display, discussion or treatment has been rejected by publishers and information providers as too difficult to develop and manage. Instead, publishers and information providers have managed large amounts of data:

(1) by limiting the size or coverage of the information space; and

(2) by setting or predetermining the path through that information space.

The effect of this is clearest when the dimension of time is considered. The conventional approach to information storage and publishing is centred on the notion that information is either "current information" (ie, present day) or "historical information" (ie, the day before the present day and all days prior to that). Thus, information is traditionally retained (stored) and/or published (sold) as either current or historical information.

The effect of this has been to leave the end user with a collection of non-integrated repositories and many additional tasks to do before the information is useful to them. For example, the end user is required to:

(1) make most of their own connections between related pieces of information;

(2) do their own analysis of the type and subject of information they require or are seeking; and

(3) find information appropriate to the point in, or period of, time with which they are concerned.

To illustrate the disadvantages of conventional publishing systems, an example of using such conventional techniques and publishing systems to research information is provided. If a person were interested in information regarding the powers of the Secretary under Australian legislation with respect to couples in a family relationship, when and how the Secretary is restricted, and what did the relevant legislation provide prior to that, the person would refer to relevant legal information, which is the Social Security legislation of the Commonwealth of Australia. The relevant provisions are set forth in Appendix A under the heading "Research Example". This would be determined by the end user's own knowledge of the broad subject and/or reference to secondary material.

The relevant legislative provision is Section 4, which in conventional electronic legal publishing systems might be found by looking for words or phrases such as "family", "family relationships", and "family relationships" AND "social security", where AND is a logical operator.

Once the above is established, it can be seen from the information found that Section 4 of the Social Security Act, as at 9/8/96, has been amended ten times (see Appendix A: *A1. AMENDMENTS TO SECTION AT 9/8/96*).

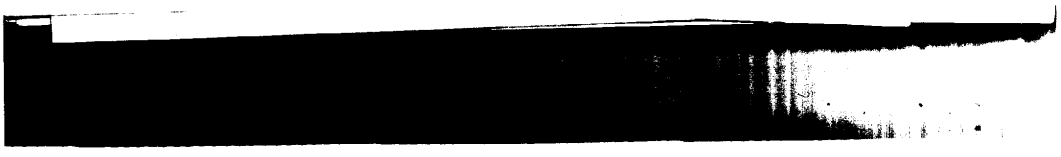
There is however nothing in the current Commonwealth Government Reprint, in either the electronic or print versions (see heading *EXAMPLE RESEARCH* of Appendix A), that allows the end user to see the text of those amendments or what part(s) of Section 4 were changed by them.

Thus, unless the end user is prepared to refer to many statute books, reading each piece of text against another, the end user is not able to see easily or reliably what section 4 looked like before it was amended by any one of a number of prior amending Acts. However, if the end user has a library complete enough to provide access to the prior amending Acts, the person would eventually determine that Act No 105 of 1995 is the relevant amending Act.

Further, it should be noted that, while the Commonwealth Government Reprint indicates that the Social Security Act was amended by Act No 105 of 1995, it does not indicate what section or schedule in Act No 105 of 1995 actually amended Section 4. This again requires the end user to have access to the amending Acts themselves and renders the information provided by the Reprint as to commencement (see Appendix A: *B. COMMENCEMENT INFORMATION FOR ACT NO 105 OF 1995 CONTAINED IN REPRINT*) of little utility without a copy of the amending Act No 105 of 1995 from which it can be established that Section 14 of Act No 105 amended Section 4 of the Social Security Act with respect to powers of the Commissioner (see Appendix A: *D. AMENDING ACT 1995 NO 105 AMENDING SECTION 14*).

Eventually, the required information can be found but several pieces of information need to be searched by the end user. This is an arduous, time consuming, tedious and complex task that must be manually repeated for each research topic and if the same search is to be carried out again.

Conventional publishing systems, including electronic publishing systems that typically are speeded-up, paper-based publishing systems, are based on a book-metaphor. The smallest piece of information used by such conventional publishing systems is either (I) an Act or Regulation (in the case of reprints, a whole Act or Regulation is printed again), or (II) a word. Typically, conventional publishing systems choose a word as the smallest piece when legislation is amended.



To track such amendments, a lawyer or their assistant may actually use scissors to cut and paste pieces of legislation or the publisher cuts and pastes each word electronically. If a whole Act or Regulation is tracked as in (I) above, it is necessary to store each new version of an Act or Regulation in its entirety.

This has a number of consequences, including:

a) only a few versions of each Act or Regulation are stored;

b) the end user rarely searches more than one reprint at a time;

c) it is very difficult to know which particular section or schedule has changed, to track how that particular section or schedule has changed, to find the relevant section of the Amending Act or Regulation that effected the section or schedule as shown in the reprint;

d) if multiple changes have occurred on a particular section or schedule between reprints, the latest version of the section or schedule can only be seen in the reprint;

e) issues like commencement of the latest version of a particular section or schedule and so-called "Application, Saving or Transitional Provisions" are difficult to recreate; and

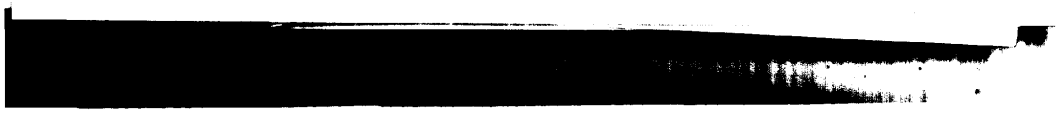
f) it is difficult to come to a full understanding of the legislation by means of the reprints.

If every single word is tracked, as in (II) above, a level of complexity results that is difficult to administer and maintain without a large number of errors. For example, some legislative sections and schedules are amended several times annually.

Table 1 provides an example where Section 6 of the *Income Tax Assessment Act* has been amended 70 times:

TABLE 1

S. 6	am. No. 88, 1936; No. 30, 1939; No. 50, 1942; No. 3, 1944; No. 6, 1946; No. 44, 1948; No. 48, 1950; No. 1, 1953; No. 65,1957; No. 55, 1958; No. 85, 1959; Nos. 18 and 108, 1960; No. 17, 1961; No. 69, 1963; No. 110, 1964; No. 103, 1965; No. 85, 1967; Nos. 4, 60 and 87, 1968; No. 93, 1969; No. 54, 1971; Nos. 51 and 164, 1973; No. 216, 1973 (as am. by No. 20, 1974); No. 126, 1974; Nos. 80 and 117, 1975; Nos. 50, 143 and 205, 1976; Nos. 87 and 172, 1978; No. 27, 1979; No. 24, 1980; Nos. 108 and



154, 1981; No. 103, 1983; Nos. 47 and 123, 1984; No. 168, 1985; Nos. 41, 48, 52 and 154, 1986; No. 138, 1987; Nos. 73, 97, 105 and 107, 1989; Nos. 20, 35 and 135, 1990; Nos. 4, 5, 100 and 216, 1991; Nos. 80, 98 and 224, 1992; Nos. 17, 18, 57 and 82, 1993; Nos. 138 and 181, 1994; Nos. 5 and 169, 1995

It is both difficult and impractical to store the complete amendment history of every word and phrase within section 6. Trying to track all changes on such a detailed level leads to unmanageable complexity.

Largely, the split between historical and present information has come about because of the publishing and information industry's own development, and not because such is the desired or best way to manage information. Thus, a need clearly exists for an electronic publishing system that can overcome one or more of the disadvantages of conventional techniques and systems.

In accordance with a first aspect of the invention, there is provided a system for publishing electronic information, comprising:

a plurality of predefined portions of data with each predefined portion being encoded with at least one linking means, and, for each predefined portion, the each predefined portion is stored and, where such predefined portion has been modified, each such modified predefined portion is stored; and

a plurality of attributes, each attribute being a point on an axis of a multidimensional space for organising the data.

In accordance with a second aspect of the invention, there is provided a recording medium for publishing electronic information, comprising:

a plurality of predefined portions of data with each predefined portion being encoded with at least one linking means, and, for each predefined portion, the each predefined portion is stored and, where such predefined portion has been modified, each such modified predefined portion is stored; and

a plurality of attributes, each attribute being a point on an axis of a multidimensional space for organising the data.

In accordance with a third aspect of the invention, there is provided a method for publishing electronic information, comprising:

providing a plurality of predefined portions of data with each predefined portion being encoded with at least one linking means, and, for each predefined portion, the each predefined portion is stored and, where such predefined portion has been modified, each such modified predefined portion is stored; and

providing a plurality of attributes, each attribute being a point on an axis of a multidimensional space for organising the data.

A small number of embodiments of the invention are described with reference to the drawings, in which:

Fig. 1 illustrates a grid of a multidimensional space according to the preferred embodiment;

Fig. 2 illustrates the effect of the various axes;

Fig. 3 illustrates the mapping of various axis intersection points, or nodes, that is used to organize, present, and find information (present and past) according to the preferred embodiment;

Fig. 4 illustrates the application of legal information to mapped nodes according to the preferred embodiment;

Fig. 5 is a block diagram illustrating a general purpose computer that can be used to implement the electronic publishing system according to the preferred embodiment;

Fig. 6 is a flow diagram illustrating the method of electronic publishing according to the preferred embodiment; and

Figs. 7 to 17 are screen shots illustrating operation of the preferred embodiment as a software application executing on a general purpose computer.

The present invention is directed towards a system of electronic publishing that can overcome the disadvantages of conventional information publishing, both in print and electronic form. The present invention reduces, if not eliminates, end user problems with conventional information publishing including:

(1) the connectivity between related pieces of information;

(2) analysis of the type and subject of information; and

(3) finding information appropriate to the point in time with which they are concerned.

The preferred embodiment organizes, processes and presents information in a way that is significantly different than conventional structures, processes and presentation. It provides an information storage and publishing system, and in particular, an information storage and publishing system that stores and manages large and comprehensive amounts of information (eg, legal information).

Publication data, being preferably legal information, is encoded using Standard Generalized Markup Language (SGML) which adds codes to the publication data and provides functionality to the data. The publication data is processed as a plurality of predefined portions, which in the case of legislation is preferably at the section or schedule level. A hierarchy of divisions of the legislation may be implemented. For each of the predefined portions, the system

stores a copy of the predefined portion and a modified predefined portion in the first database whenever it is changed. A second (relational) database is preferably provided that comprises plural attributes for managing the information of the first database, with each attribute being a point on an axis of a multidimensional space for organising the data for publication.

The system enables the first database to be searched for one of the predefined portions of the publication data using attributes of the second database by following one or more pathways through the multidimensional space. The plurality of attributes are connected to by the plurality of links. Once the desired predefined portion is located, the predefined portions can be retrieved using the attributes to define a point in the multidimensional space.

Preferably, the system implements, inter alia, time-based legislation in which sections of legislation that have been amended are not discarded and replaced with the current provision only as of the publication date. Instead, each version of an amended section is retained in the first database. Thus, the system according to the preferred embodiment is particularly advantageous in that legal information is published so that a user can obtain such sections or provisions at a particular time point.

The preferred embodiment advantageously divides information into "suitably" small pieces (or blocks) of text , each of which is a predefined portion of data, and adds to each piece of text, either expressly or implicitly, a number of attributes (characteristics or descriptors). The suitability as to size of text pieces is determined by an analysis of the information and its naturally occurring structure based on knowledge of how the information is used and consumed by the end user.

This makes it possible to locate each piece or block of text at a particular point in a "multidimensional space" using as coordinates the attributes added to the piece or block of text. Multidimensional space refers to an area not having boundaries and that is capable of, or involves, more than three dimensions.

Fig. 1 illustrates a multi-dimensional space 100 as used in the preferred embodiment. The multidimensional space is represented by a layered grid. The diagram represents axes or pathways as vertical and horizontal lines; in reality (in the case of more than two dimensions), they are at all angles and inclines.

Referring to Fig. 2, the ability to locate (assign) or map each node 102 (or key intersection point of the various axes or pathways) is a significant functional aspect of the preferred embodiment. This mapping is explained further hereinafter. With such coordinates 102 known (located or mapped), it is possible to move easily between points in the multidimensional space 100.

The effect of mapping nodes as shown in Fig. 3 is that a course 320 through the information represented in the three-dimensional space 100 can be easily plotted. The user begins the course 320 at node 302 and progresses vertically downward to the fourth node 304. Further, the plotted course 320 is flexible to the extent of the relationships a user chooses to follow or seek out.

The preferred embodiment provides information management in the multidimensional space and allows movement along different axes or "pathways":

location of the information (its address);

type of information (its genesis);

jurisdiction (its class);

subject (its content description);

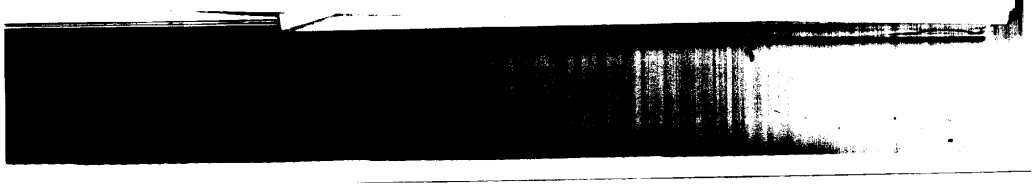
depth (extent of content); and

time (the point in time at which the information is viewed).

In the preferred embodiment, coding of information or data for publication is based on SGML and one or more specifically developed Document Type Definitions (DTD), which preferably is specifically designed for legal information. This coding can then be related back to information retained in a specifically developed database that enables the code information to be managed and updated. For a detailed description of this aspect of the invention, reference is made to Appendix C. The DTDs according to the preferred embodiment are set forth in detail in Appendix B. A DTD is used to define the structure of publication data, preferably being legislation, down to a comprehensive level. This is done by using information coded in conjunction with any one of a number of off-the-shelf, free-text retrieval software packages (eg, Folio Views or Dynatext) to deliver the information to the end user.

A DTD describes the markup for the SGML publication data, or "repository", which may contain legislation, case law, journal articles and other types of material that are stored in computer files. The files contain publication data in text form and the markup, which is extra information about the text included with the text. An example of a markup is '<BD+>' which indicates that "the data from this point on is bold". A further example is '<SECTION ID="CWACT-19950104-SEC-1" LBL="1">'. This markup indicates that: the data from this point on is part of a section of legislation; the section has an identifier of CWACT-19950104-SEC-1; and the section has a label of "1".

There are a number of different ways to add markup to data. The preferred embodiment adds markup to data using SGML. Even within SGML, there are many ways to add markup to text. Each particular way of adding markup



within SGML is described by using a DTD. In the preferred embodiment, the data for publication is marked up using a number of different DTDs. In particular, the DTDs are used to mark up the logical structure of the legislation, case law or journal articles. Significant amounts of information about the data for publication is stored in the markup. For example, the markup '<SECTION ID="CWACT-19950104-SEC-1" LBL="1">' provides the following information: the data is a piece of Commonwealth of Australia legislation (indicated by 'CW' at the beginning of the string); the section is part of an Act ('ACT' after 'CW') and not a regulation; the act is Act No. 104 of 1995 ('19950104' in the middle of the string), the data is a Section ('SEC') within the Act; and it is Section 1 ('1' at the end).

The preparation of such DTDs necessitates that the author has a sound knowledge of the data that will be marked up using the DTD. It is especially important that the underlying structure of the data to be marked up using the DTD be understood. The process of becoming acquainted with the structure of the data to be marked up is referred to hereinafter as "content analysis".

In particular, the section-level or schedule-level portion of legislation is used in the preferred embodiment. That is, the section-level portion is preferably the predefined portion of the publication data, which is the smallest piece of information to be tracked. This is unlike conventional publishing systems. For example, with reference to Table 1, the preferred embodiment stores every version of Section 6. In this manner, complexity (tracking every word) is reduced by increasing storage. However, unlike example (I) of conventional publishing systems, the preferred embodiment does not lose any pertinent information:

a) every version of each Act or Regulation is stored;

b) the end user can search every version of any section or schedule at the same time;

c) it is easy to know which particular section or schedule has changed, to track how that particular section or schedule has changed, and to find the relevant section of the Amending Act or Regulation that affected the section or schedule;

d) if multiple changes have occurred on a particular section or schedule, every version of the section or schedule can be seen;

e) issues like commencement of the latest version of a particular section or schedule and so-called "Application, Saving or Transitional Provisions" can easily be recreated;

f) it is possible to come to a full understanding of the legislation just by looking at the data provided through the preferred embodiment.

A further advantage of tracking every version of each section or schedule

is that it is possible to store some of the information, not in the markup, but in a database, as noted hereinbefore. This simplifies the updating process.

While SGML is a powerful way of storing information, it is not a retrieval medium. Therefore, the stored information needs to be converted into a format that the end user of the information can access. The preferred embodiment uses an electronic format for retrieval. For this electronic retrieval, a software application called 'high-end text retrieval software' is used. Examples of high-end, text-retrieval software applications include Folio Views and Dynatext. In the preferred embodiment, Folio Views is used.

Folio Views has its own proprietary markup language, which is not part of the SGML family. A complete guide to the Folio Views markup language is provided in the text Folio Views Infobase Production Kit Utilities Manual, Version 3.1, Provo, Utah: Folio Corporation (1 June 1994). Storing the data for publication in SGML allows other retrieval software applications besides Folio Views to be used.

In the preferred embodiment, a process is implemented to convert the SGML marked-up data into the format used by the retrieval software application. The example given for Folio Views hereinafter is but one example of the process involved. The conversion program basically maps the SGML markup to Folio Views markup. For example, for the SGML markup '<SECTION ID="CWACT-19950104-SEC-1" LBL="1">', the conversion process marks all ID's substantively unchanged as Jump Destinations (JD's): '<JD: ="CWACT-19950104-SEC-1">'.

A Keying Guide for Australian Legislation Documents with instructions for the conversion process to Folio Views added is provided in Appendix D.

Movement through legal information can be as follows (the flexibility and scope is largely up to the end user):

(1) doing research on the *subject* of fences and boundaries at the *depth* fences that are hedges looking for *types* Acts and Regulations in *jurisdictions* NSW and Victoria for the *time* period last 20 years;

(2) doing research on the *subject* evidence at *depth* confession for *types* Acts and cases for *time* period last 12 months; or

(3) doing research on *type* cases with *jurisdictions* NSW and Queensland, *subject* murder and *depth* statutes dealing with subject.

The application of legal information to mapped nodes is shown in Fig. 4. However, this is only one of numerous possible applications. Information from medical, technical and scientific areas are all open to the application of this invention. This diagram substitutes the technical terminology of Figure 3 with legal

terms to show the way information appears according to the preferred embodiment. Further, Fig. 4 provides an example of how legal information is navigated by an end user. The user may be seeking information on the following matters:

(1) Does NSW legislation on fences presently cover hedge rows between the boundary of a private property and a public road?

(2) If not, have such hedge rows ever come under NSW legislation?

(3) Are there any cases under current law or previous law?

(4) How have the cases been interpreted?

Some general assumptions are made about legal information for the purposes of this example. Broadly, legal information has two main primary sources: statute law (including subordinate legislation), and case law. There is also secondary information such as commentary which can be added to aid interpretation. Each of these sources is interconnected and relevant to the other in terms of both past and present information. It is the association of this relevance and interconnection that is advantageous to the end user.

In Fig. 4, the X-, Y-, and Z-axes indicate time (Time), the legislative provision (location), and type (eg, legislation=L, cases=C, and journal articles=J). To simplify the diagram, only three axes are illustrated, however, other axes may be included dependent upon the number of dimensions of the space. In the preferred embodiment, the multidimensional space also includes another three axes: jurisdiction=U, subject=V, and depth=W. Thus, the space according to the preferred embodiment has six dimensions. In the six-dimensional case, it is possible to move along each axis and at the points of intersection change direction, as well as find and/or follow new or additional information.

The end user begins at legislation (L) along the Z-axis, where the *Fences and Boundaries Act* is located and then selects Section 1 of legislation (indicated by L allowing the Z-axis) at node 402, as of 1 January 1996. The user then follows a path in the legislation through nodes 404, 406 and 408 for Sections 2, 3 and 4, respectively, as of that same date (ie, the Y-axis), to find a definition of the term "fences". Node 408 contains Section 4 at 1 January 1996 which contains the current definition of "fences". This would provide information in response to above query (1).

The user then selects Section 4 of the legislation as of 1 January 1995, which in this case is an earlier version of the section prior to amendment, by moving to node 410 (along the X-axis). This provides information about the prior law for above query (2). The user can then move to other information on Section 4 as of 1 January 1995 by going to nodes 412 and 414 for case and journal article information, respectively, along the Z-axis For example, a case on the earlier

Section 4 might be identified at node 412 and articles on interpretation of Section 4 at node 414. The foregoing is only one possible route through the multidimensional space of information. Other more complicated and interrelated pathways involving axes U, V and W are possible. For example, the user can move to axis U (jurisdiction) and compare the definition in Section 4 of New South Wales with that in another jurisdiction (eg, Victoria).

Fig. 6 is a flow diagram illustrating the method of electronic publishing according to the preferred embodiment. A data source 602, preferably for legal information, is provided. In steps 604 and 606, base data and new data are input from the data source 602, respectively, and in step 608 the data is captured. The DTDs 610 are input to step 612. The DTDs 610 include Act.DTD, Acts.DTD, Reg.DTD, Regs.DTD, and Common.ELT, which are shown in detail in Appendix B. In step 612, the DTDs 610 are applied to the captured data from step 608. In step 614, the data is coded in SGML, including the Time Base Code. In step 616, the data is consolidated. As indicated in Fig. 6, steps/items 602 to 616 comprise the (first) data conversion stage.

A data management database 620 is provided to step 618. The database is based on a master table and a textblock table (see Appendix C for further detail). The output of step 616 is also provided to step 618. In step 618, the data is consolidated; the data is stored as multiple versions, if applicable, and uses the predefined portions of data (ie, textblocks). In step 622, a filter program(s) is applied to the consolidated data to convert the data from SGML to the relevant format for the retrieval software application, including Folio Views, DynaText, Topic, HTML, and the like. Steps/item 618 to 622 comprise the (second) data management stage.

The filtered data output by step 622 can then be provided to step 624. In step 624, the filter consolidated data is imported to the text retrieval software. In step 626, the data is provided to the delivery medium, which may include CD-ROM, electronic online services, and other media. The output of this is the end user product 628. Steps/item 624 to 628 comprise the (third) product manufacture stage.

The preferred embodiment is preferably practiced using a conventional general-purpose computer, such as the one shown in Fig. 5, wherein processes for providing and managing the information are carried out using software executing on the computer. In particular, the legislation database, the database and the DTD(s) may be stored after a filtering process on a CD-ROM used by the computer system, and the computer system is operated using Folio View. The computer system 500 includes a computer 502, a video display 516, and input devices 518. A number of

output devices, including line printers, laser printers, plotters, and other reproduction devices, can be connected to the computer 502. Further, the computer system 500 can be connected to one or more other computers using an appropriate communication channel such as a modem communications path, a computer network, or the like.

The computer 502 consists of a central processing unit 504 (simply, processor hereinafter), an input/output interface 508, a video interface 510, a memory 506 which can include random access memory (RAM) and read-only memory (ROM), and one or more storage devices generally represented by a block 512 in Fig. 5. The storage device(s) 512 can consist of one or more of the following: a floppy disc, a hard disc drive, a magneto-optical disc drive, CD-ROM or any other of a number of non-volatile storage devices well known to those skilled in the art. Each of the components 504 to 512 is typically connected to one or more of the other devices via a bus 514 that in turn can consist of data, address, and control buses.

The video interface 510 is connected to the video display 516 and provides video signals from the computer 502 for display on the video display 516. User input to operate the computer 502 can be provided by one or more input devices. For example, a operator can use the keyboard 518 and/or a pointing device such as the mouse to provide input to the computer 502. Exemplary computers on which the embodiment can be practiced include Macintosh personal computers, Sun SparcStations, and IBM-PC/ATs and compatibles.

In an alternate embodiment of the invention, the computer system 500 can be connected in a networked environment by means of an appropriate communications channel. For example, a local area network could be accessed by means of an appropriate network adaptor (not shown) connected to the computer, or the Internet or an Intranet could be accessed by means of a modem connected to the I/O interface or an ISDN card connected to the computer 502 by the bus 514. In such a networked configuration, the electronic publishing system can be implemented partially on the user's computer 500 and a remote computer (not shown) coupled over the network. The legislation database, the database and the DTD(s) can be implemented on the remote computer and the computer system 500 can be operated using Folio View.

The operation of the preferred embodiment is described with reference to the screen shots shown in Figs. 7 to 17. All screen shots are derived from the preferred embodiment which uses Folio Views as the retrieval software. A number of "balloon" captions are provided in the screen shots to provide additional information. Broadly, Figs. 7 to 15 are screen shots illustrating navigation or

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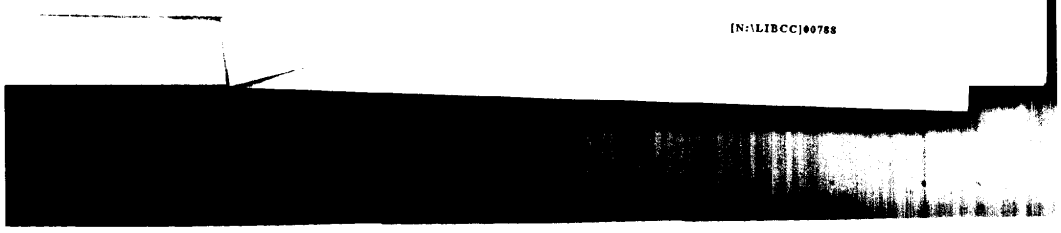


movement around the information. Figs. 16 and 17 are screen shots that show search capacities.

Fig. 7 shows the opening screen, which the end user sees when the program is started. The interface is a standard windows interface featuring drop menus that provide access to all functions. The functions include basic searching and customised search templates such as the ones shown in Figs. 16 and 17 that allow users to exploit time-based and multidimensional searching.

The Start and Main menu buttons in Fig. 7 are both navigational tools. The Start button takes a new user to information providing help on how to use the invention. The Main Menu button takes the end user to the menu shown in the second screen shot of Fig. 8.

Fig. 8 shows a main selection menu. At this menu, the user can see the currency of the total information. The user is also able to make broad choices as to the type of information that the person might like to see. All items preceded by bullet points in the menu are jump links which lead the user to further menus for the items selected. Thus, if searching the Social Security Act, selecting "Find an Act" takes the user to the next screen which would be the "Act Name Menu".

Fig. 9 shows the "Act Name Menu". In this menu, all letter buttons are links to Acts beginning with the letter selected. If "S" is clicked, this leads to the "Acts beginning with S" menu (see Fig. 10) where an entry linked to the most current version of the Social Security Act 1991 appears.

Fig. 11 shows how the beginning of the Social Security Act appears and the buttons that link the user to the provisions of the Act. Fig. 12 shows how a specific provision, say Section 4, can be accessed again using links.

Fig. 13 shows the Time Base Toolbar. This Toolbar is not a feature of Folio Views, but is a designed addition added to Folio Views by the preferred embodiment. It is made possible by the way in which the publication data is coded. This Toolbar allows a user to cycle through previous and subsequent versions of sections and as shown in screens in Figs. 14 and 15 to refer to the text of sections amending the section. As well, the user can also call to the screen all versions of the section as one view (or display) using the "ALL" button.

The screen shots in Figs. 7 to 15 display a step-through or navigation-based way of locating information. There is also the more direct approach of searching for terms using text retrieval. The screen shots in Figs. 16 and 17 illustrate such searching provided by the preferred embodiment. Again, the ability to relate such to time and then to mix and match types of information from different sources (jurisdictions) is a feature provided by the coding technique used for the data and not the Folio Views software used to deliver the data to the end user.

The foregoing only describes a small number of embodiments of the invention, and modifications and changes apparent to those skilled in the art can be made thereto without departing from the scope and spirit of the invention.

Aspects of the Invention

The following numbered paragraphs set forth aspects of the invention:

1. A system for publishing electronic information, comprising:

a plurality of predefined portions of data with each predefined portion being encoded with at least one linking means, and, for each predefined portion, said each predefined portion is stored and, where such predefined portion has been modified, each such modified predefined portion is stored; and

a plurality of attributes, each attribute being a point on an axis of a multidimensional space for organising said data.

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

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

4. The system according to paragraph 1 or 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 paragraph 1 further comprising means for searching at least one of said 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 any one of paragraphs 1 to 5, wherein said plurality of predefined portions of said data are encoded using Standard Generalised Markup Language (SGML).

7. The system according to paragraph 6, wherein said data is encoded using one or more Document Type Definitions (DTD).

8. The system according to any one of paragraphs 1 to 7, wherein said linking means comprises any piece of information additional to the body of the data.

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

10. The system according to any one of paragraphs 1 to 7, wherein said at least one linking means comprises an identification code for said respective predefined portion.

11. The system according to any one of paragraphs 1 to 10, wherein a first database comprises said plurality of predefined portions of data.

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

13. The system according to any one of paragraphs 1 to 12, wherein said predefined portions are encoded with one or more attributes.

14. The system according to any one of paragraphs 1 to 13, 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 any one of paragraphs 1 to 13, 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 any one of paragraphs 1 to 15, wherein said data comprises legislation.

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

18. The system according to paragraph 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 any one of paragraphs 1 to 18, wherein said system is implemented using a general purpose computer.

20. A recording medium for publishing electronic information, comprising:

a plurality of predefined portions of data with each predefined portion being encoded with at least one linking means, and, for each predefined portion, said each predefined portion is stored and, where such predefined portion has been modified, each such modified predefined portion is stored; and

a plurality of attributes, each attribute being a point on an axis of a multidimensional space for organising said data.

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

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

23. The recording medium according to paragraph 21 or 22 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 paragraph 20 wherein means for searching at least one of said predefined portions of 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 any one of paragraphs 20 to 24, wherein said plurality of predefined portions of said data are encoded using Standard Generalised Markup Language (SGML).

26. The recording medium according to paragraph 25, wherein said data is encoded using one or more Document Type Definitions (DTD).

27. The recording medium according to any one of paragraphs 20 to 26, wherein said linking means comprises any piece of information additional to the body of the data.

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

29. The recording medium according to any one of paragraphs 20 to 28, wherein said at least one linking means comprises an identification code for said respective predefined portion.

30. The recording medium according to any one of paragraphs 20 to 29, wherein a first database comprises said plurality of predefined portions of data.

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

32. The recording medium according to any one of paragraphs 20 to 31, wherein said predefined portions are encoded with one or more attributes.

33. The recording medium according to any one of paragraphs 20 to 32, 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 any one of paragraphs 20 to 32, 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 any one of paragraphs 20 to 34, wherein said data comprises legislation.

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

37. The recording medium according to paragraph 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 any one of paragraphs 20 to 37, wherein said recording medium is implemented using a general purpose computer.

39. The recording medium according to any one of paragraphs 20 to 39, wherein said recording medium is made from one of the group consisting of magnetic media, optical media, and magneto-optical media.

40. A method for publishing electronic information, comprising:

providing a plurality of predefined portions of data with each predefined portion being encoded with at least one linking means, and, for each predefined portion, said each predefined portion is stored and, where such predefined portion has been modified, each such modified predefined portion is stored; and

providing a plurality of attributes, each attribute being a point on an axis of a multidimensional space for organising said data.

41. The method according to paragraph 40 comprising the step of searching said data.

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

43. The method according to paragraph 41 or 42 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 paragraph 40 further comprising the step of searching at least one of said 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.

45. The method according to any one of paragraphs 40 to 44, wherein said plurality of predefined portions of said data are encoded using Standard Generalised Markup Language (SGML).

46. The method according to paragraph 45, wherein said data is encoded using one or more Document Type Definitions (DTD).

47. The method according to any one of paragraphs 40 to 46, wherein said linking means comprises any piece of information additional to the body of the data.

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

49. The method according to any one of paragraphs 40 to 48, wherein said at least one linking means comprises an identification code for said respective predefined portion.

50. The method according to any one of paragraphs 40 to 49, wherein a first database comprises said plurality of predefined portions of data.

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

52. The method according to any one of paragraphs 40 to 51, wherein said predefined portions are encoded with one or more attributes.

53. The method according to any one of paragraphs 40 to 52, 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 any one of paragraphs 40 to 52, 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 any one of paragraphs 40 to 54, wherein said data comprises legislation.

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

57. The method according to paragraph 57, 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 any one of paragraphs 40 to 57, wherein said method is implemented using a general purpose computer.

APPENDIX A

Example Research

SOCIAL SECURITY ACT 1991 No 46

Updated as at 9 August 1996

A 1. Amendments to Section at 9/8/96

S. 4 — am. Nos. 74, 116 and 194, 1991; No. 81, 1992; No. 36, 1993; Nos. 55, 63 and 184, 1994; Nos. 104 and 105, 1995

A 2. Amendments to Section at 10/7/95

S. 4 — am. Nos. 74, 116 and 194, 1991; No. 81, 1992; No. 36, 1993; Nos. 55, 63 and 184, 1994

B. Commencement Information for Act No 105 of 1995 contained in Reprint

Social Security (Non-Budget Measures) Legislation Amendment Act 1995

Number	Year	Date of Assent	Commencement
105	1995	29 Sept 1995	Subdiv. A of Div. 2 of Part 2 (s. 4): 1 July 1993
			Ss. 8 and 9: 1 July 1995
			S. 10: 1 Apr 1993
			Div. 5 of Part 2 (ss. 12 and 13): 20 Sept 1994 (ze)
			Ss. 17 (c), (d) and 18: 1 Jan 1996
			Div. 15 of Part 2 (s. 37): 29 Nov 1993
			Div. 18 of Part 2 (ss. 41-48): 20 Mar 1995
			S. 49 (a): 12 Mar 1992
			S. 49 (b): 1 July 1992
			S. 49 (c): 28 Jan 1993
			S. 49 (d): 1 Mar 1993
			S. 49 (e): 24 Dec 1993
			S. 49 (f): 1 Jan 1994
			Remainder: Royal Assent

C 1. Text of Section at 9/8/96

bold text indicates amendments made by N0 105 0f 1995.

SECT 4

Family relationships definitions-couples

4. (1) (1) In this Act, unless the contrary intention appears:

"approved respite care" has the meaning given by subsection (9);

"armed services widow" means a woman who was the partner of:

(a) a person who was a veteran for the purposes of any provisions of the Veterans' Entitlements Act; or

(b) a person who was a member of the forces for the purposes of Part IV of that Act; or

(c) a person who was a member of a peacekeeping force for the purposes of Part IV of that Act;

immediately before the death of the person;

"armed services widower" means a man who was the partner of:

(a) a person who was a veteran for the purposes of any provisions of the Veterans' Entitlements Act; or

(b) a person who was a member of the Forces for the purposes of Part IV of that Act; or

(c) a person who was a member of a Peacekeeping Force for the purposes of Part IV of that Act;

immediately before the death of the person;

"illness separated couple" has the meaning given by subsection (7);

"member of a couple" has the meaning given by subsections (2), (3), **(3A) [reference to new section added]** and (6);

"partner", in relation to a person who is a member of a couple, means the other member of the couple;

"partnered" has the meaning given by subsection (11);

"partnered (partner getting benefit)" has the meaning given by subsection (11);

"partnered (partner getting neither pension nor benefit)" has the meaning given by subsection (11);

"partnered (partner getting pension)" has the meaning given by subsection (11);

"partnered (partner getting pension or benefit)" has the meaning given by subsection (11);

"partnered (partner in gaol)" has the meaning given by subsection (11);

"respite care couple" has the meaning given by subsection (8).

Member of a couple-general

4 (2) Subject to subsection (3), a person is a member of a couple for the purposes of this Act if:

(a) the person is legally married to another person and is not, in the Secretary's opinion (formed as mentioned in subsection (3)), living separately and apart from the other person on a permanent **or indefinite [Words added]** basis; or

(b) all of the following conditions are met:

(i) the person **has a relationship [Words is living replaced]** with a person of the opposite

sex (in this paragraph called the "partner");

(ii) the person is not legally married to the partner;

(iii) the relationship between the person and the partner is, in the Secretary's opinion (formed as mentioned in subsections (3) and (3A)[Words added]), a marriage-like relationship;

(iv) both the person and the partner are over the age of consent applicable in the State or Territory in which they live;

(v) the person and the partner are not within a prohibited relationship for the purposes of section 23B of the Marriage Act 1961.

Note: a prohibited relationship for the purposes of section 23B of the Marriage Act 1961 is a relationship between a person and:

. an ancestor of the person; or

. a descendant of the person; or

. a brother or sister of the person (whether of the whole blood or the part-blood).

Member of a couple-criteria for forming opinion about relationship

4 (3) In forming an opinion about the relationship between 2 people for the purposes of paragraph (2) (a) or subparagraph (2) (b) (iii), the Secretary is to have regard to all the circumstances of the relationship including, in particular, the following matters:

(a) the financial aspects of the relationship, including:

(i) any joint ownership of real estate or other major assets and any joint liabilities; and

(ii) any significant pooling of financial resources especially in relation to major financial commitments; and

(iii) any legal obligations owed by one person in respect of the other person; and

(iv) the basis of any sharing of day-to-day household expenses;

(b) the nature of the household, including:

(i) any joint responsibility for providing care or support of children; and

(ii) the living arrangements of the people; and

(iii) the basis on which responsibility for housework is distributed;

(c) the social aspects of the relationship, including:

(i) whether the people hold themselves out as married to each other; and

(ii) the assessment of friends and regular associates of the people about the nature of their relationship; and

(iii) the basis on which the people make plans for, or engage in, joint social activities;

(d) any sexual relationship between the people;

(e) the nature of the people's commitment to each other, including:

(i) the length of the relationship; and

(ii) the nature of any companionship and emotional support that the people provide to each other; and

(iii) whether the people consider that the relationship is likely to continue indefinitely; and

(iv) whether the people see their relationship as a marriage-like relationship.

4 (3A) The Secretary must not form the opinion that the relationship between a person and his or her partner is a marriage-like relationship if the person is living separately and apart from the partner on a permanent or indefinite basis. [Subsection added]

C 2. Text of Section at 10/7/95 prior

SECT 4

Family relationships definitions - couples

4. SECT 4

Family relationships definitions-couples

4. (1) In this Act, unless the contrary intention appears:

"approved respite care" has the meaning given by subsection (9);

"armed services widow" means a woman who was the partner of:

(a) a person who was a veteran for the purposes of any provisions of the Veterans' Entitlements Act; or

(b) a person who was a member of the forces for the purposes of Part IV of that Act; or

(c) a person who was a member of a peacekeeping force for the purposes of Part IV of that Act;

immediately before the death of the person;

"armed services widower" means a man who was the partner of:

(a) a person who was a veteran for the purposes of any provisions of the Veterans' Entitlements Act; or

(b) a person who was a member of the Forces for the purposes of Part IV of that Act; or

(c) a person who was a member of a Peacekeeping Force for the purposes of Part IV of that Act;

immediately before the death of the person;

"illness separated couple" has the meaning given by subsection (7);

"member of a couple" has the meaning given by subsections (2), (3), and (6);

"partner", in relation to a person who is a member of a couple, means the other member of the couple;

"partnered" has the meaning given by subsection (11);

"partnered (partner getting benefit)" has the meaning given by subsection (11);

"partnered (partner getting neither pension nor benefit)" has the meaning given by subsection (11);

"partnered (partner getting pension)" has the meaning given by subsection (11);

"partnered (partner getting pension or benefit)" has the meaning given by subsection (11);

"partnered (partner in gaol)" has the meaning given by subsection (11);

"respite care couple" has the meaning given by subsection (8).

Member of a couple-general

4 (2) Subject to subsection (3), a person is a member of a couple for the purposes of this Act if:

(a) the person is legally married to another person and is not, in the Secretary's opinion (formed as mentioned in subsection (3)), living separately and apart from the other person on a permanent basis; or

(b) all of the following conditions are met:

(i) the person with a person of the opposite sex (in this paragraph called the "partner");

(ii) the person is not legally married to the partner;

(iii) the relationship between the person and the partner is, in the Secretary's opinion (formed as mentioned in subsections (3)), a marriage-like relationship;

(iv) both the person and the partner are over the age of consent applicable in the State or Territory in which they live;

(v) the person and the partner are not within a prohibited relationship for the purposes of section 23B of the Marriage Act 1961.

Note: a prohibited relationship for the purposes of section 23B of the Marriage Act 1961 is a relationship between a person and:

. an ancestor of the person; or

. a descendant of the person; or

. a brother or sister of the person (whether of the whole blood or the part-blood).

Member of a couple-criteria for forming opinion about relationship

4 (3) In forming an opinion about the relationship between 2 people for the purposes of paragraph (2) (a) or subparagraph (2) (b) (iii), the Secretary is to have regard to all the circumstances of the relationship including, in particular, the following matters:

(a) the financial aspects of the relationship, including:

(i) any joint ownership of real estate or other major assets and any joint liabilities; and

(ii) any significant pooling of financial resources especially in relation to major financial commitments; and

(iii) any legal obligations owed by one person in respect of the other person; and

(iv) the basis of any sharing of day-to-day household expenses;

(b) the nature of the household, including:

(i) any joint responsibility for providing care or support of children; and

(ii) the living arrangements of the people; and

(iii) the basis on which responsibility for housework is distributed;

(c) the social aspects of the relationship, including:

(i) whether the people hold themselves out as married to each other; and

(ii) the assessment of friends and regular associates of the people about the nature of their relationship; and

(iii) the basis on which the people make plans for, or engage in, joint social activities;

(d) any sexual relationship between the people;

(e) the nature of the people's commitment to each other, including:

(i) the length of the relationship; and

(ii) the nature of any companionship and emotional support that the people provide to each other; and

(iii) whether the people consider that the relationship is likely to continue indefinitely; and

(iv) whether the people see their relationship as a marriage-like relationship.

D. Amending Act 1995 No 105 amending Section 14

SOCIAL SECURITY (NON-BUDGET MEASURES) LEGISLATION AMENDMENT ACT 1995 No. 105

of 1995 - SECT 14

Family relationships definitions-couples

SECT

14. Section 4 of the Principal Act is amended:

(a) by inserting in the defintion of "member of a couple" in subsection (1) ", (3A)" after "(3)";

(b) by inserting in paragraph (2)(a) "or indefinite" after "permanent";

(c) by omitting from subparagraph (2)(b)(i) "is living" and substituting "has a relationship";

(d) by omitting from subparagraph (2)(b)(iii) "subsection (3)" and substituting "subsections (3) and (3A)";

(e) by inserting after subsection (3):

"(3A) The Secretary must not form the opinion that the relationship between a person and his or her partner is a marriage-like relationship if the person

is living separately and apart from the partner on a permanent or indefinite basis.".

APPENDIX B

CODING - Document Type definitions (dtds)

ACT.DTD

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

    Document Type Definition for a set of acts

    Typical invocation :

    <!DOCTYPE acts PUBLIC "-//SGMLSE//DTD 1.0 Acts//EN" >

   Copyright Aunty Abha's Electronic Publishing Pty. Ltd. 1996, 1997

************************************************************************ -->

<!ENTITY % CONSOL "IGNORE">

<!-- ****** Include common element and entity definitions ********* -->

<!ENTITY % common
   PUBLIC "-//SGMLSE//ELEMENTS 2.0 Common Elements//EN" >
%common;

<!-- ****** End common element and entity definitions ********* -->

<!ELEMENT acts      - - (title, header?, act+)
>

<!ENTITY % act PUBLIC "-//SGMLSE//DTD 1.0 Act//EN" >
%act;
```

ACTS.DTD

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

    Document Type Definition for a set of acts

    Typical invocation :

    <!DOCTYPE acts PUBLIC "-//SGMLSE//DTD 1.0 Acts//EN" >

   Copyright Aunty Abha's Electronic Publishing Pty. Ltd. 1996, 1997

******************************************************************** -->

<!ENTITY % CONSOL "IGNORE">

<!-- ****** Include common element and entity definitions ********* -->

<!ENTITY % common
   PUBLIC "-//SGMLSE//ELEMENTS 2.0 Common Elements//EN" >
%common;

<!-- ****** End common element and entity definitions ********* -->

<!ELEMENT acts      - - (title, header?, act+)
>

<!ENTITY % act PUBLIC "-//SGMLSE//DTD 1.0 Act//EN" >
%act;
```

REG.DTD

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

    Document Type Definition for a Regulation

    Typical invocation :

    <!DOCTYPE regact PUBLIC "-//SGMLSE//DTD 1.0 Regulation Act//EN" >

   Copyright Aunty Abha's Electronic Publishing Pty. Ltd. 1996, 1997

REVISION History
****************

190197          TH      Since RULE, REG and SECTION are all equivalent,
removed REG from this DTD

                Added long-title
************************************************************************ -->

<!ELEMENT reg - - (title, notes?, provisions?, (preamble|long-title)?,
((order+|(section|schedule)+|chapter+|part+),schedule*))>
<!ATTLIST reg id ID #REQUIRED
        date CDATA #IMPLIED     -- used in numacts --
            %status;
            %subject;
>
```

REGS.DTD

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

    Document Type Definition for a set of regulations

    Typical invocation :

    <!DOCTYPE regs PUBLIC "-//SGMLSE//DTD 1.0 Regulations//EN" >

   Copyright Aunty Abha's Electronic Publishing Pty. Ltd. 1996, 1997

REVISION History
****************

************************************************************************** -->

<!ENTITY % CONSOL "IGNORE">

<!ELEMENT regs      - - (title, header?, reg+)
>

<!-- ****** Include common element and entity definitions ********* -->

<!ENTITY % common
   PUBLIC "-//SGMLSE//ELEMENTS 2.0 Common Elements//EN" >
%common;

<!-- ****** End common element and entity definitions ********* -->


<!ENTITY % reg PUBLIC "-//SGMLSE//DTD 1.0 Regulation//EN" >
%reg;
```

COMMON.ELT

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

    Common element, attribute and entity definitions.

    Typical invocation :

    <!ENTITY % common PUBLIC
        "-//SGMLSE//ELEMENTS 3.0 Common Elements//EN" >
    %common;

    VERSION 3        19 Jan 1997

    Copyright Aunty Abha's Electronic Publishing Pty. Ltd. 1996, 1997

REVISION History
****************

141096      TH      Added p* to definition of schedule

151096      TH      Added %reqid; %reqlbl; attributes to RULE, ORDER,
                    DIVISION, SUB-DIVISION
                    Added P+ and SUB+ to rule definition

251096      TH      Added ststus entity for amendment information

291096      TH      Changed definition for ORDER

141196      TH      Added <ALTERED> element

261196      TH      Too many changes to mention - Designated Version 2

150197      TH      Too many changes to mention - Designated Version 3

190197      TH      Changed contents of SECTION and SCHEDULE to
(title, (%unstruct-cont;))

        TH      Since RULE, REG and SECTION are all equivalent, renamed
all to SECTION and added attribuute TYPE to designate which type of
section they are

        TH      Added entity SUBJECT to allow each element to belong to 1
or more subjects

        TH      Added entity CONSOL which is invoked in the consolidation
DTD using marked sections

************************************************************************ -->
```

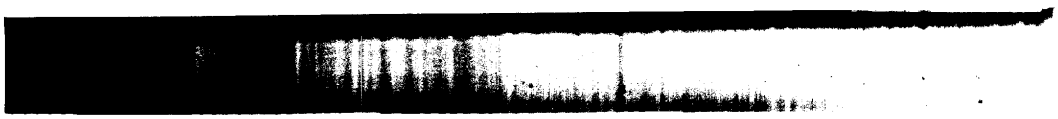
(366274)

[N:\LIBCC]00790

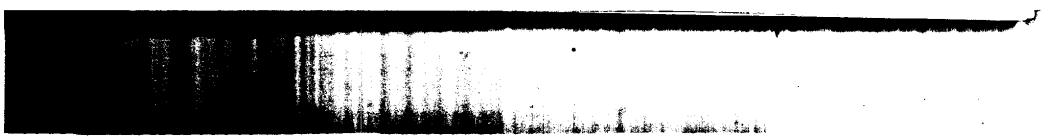
```
<!--
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++++++++++ -->
<!--   ISO Character Entity Set Declarations and references            -->
<!--
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++++++++++ -->

 <!ENTITY % ISOnum PUBLIC "ISO 8879:1986//ENTITIES Numeric and
       Special Graphic//EN"                                    >
 <!ENTITY % ISOpub PUBLIC "ISO 8879:1986//ENTITIES
       Publishing//EN"                                         >
 <!ENTITY % ISOtech PUBLIC "ISO 8879:1986//ENTITIES
       General Technical//EN"                                  >
 <!ENTITY % ISOlat1 PUBLIC "ISO 8879:1986//ENTITIES
       Added Latin 1//EN"                                      >
 <!ENTITY % ISOgrk3 PUBLIC "ISO 8879:1986//ENTITIES
       Greek Symbols//EN"                                      >
 %ISOnum;
 %ISOpub;
 %ISOtech;
 %ISOlat1;
 %ISOgrk3;
<!-- ********************* End Character entities ************************ -->

<!-- *************** Parameter Entities ******************** -->

<!ENTITY % consol "">

<![ %CONSOL [
<!ENTITY % consol  "cai     NAMES        #IMPLIED
                   -- Creating amending act ID (IDs) --
                   eai     NAMES        #IMPLIED
                   -- Ending amending act ID (IDs) --
                   "
>
]]>

<!ENTITY % status
          "insert-date   NUMBER     #IMPLIED -- insert date --
           insert-leg    IDREF      #IMPLIED -- link to the inserting
legislation --
           repeal-date   NUMBER     #IMPLIED -- repeal date --
           repeal-leg    IDREF      #IMPLIED -- link to the repealing
legislation --
           amend-date    NUMBER     #IMPLIED -- amended date --
           amend-leg     IDREF      #IMPLIED -- link to the amending
legislation --
                 "
>

<!ENTITY % reqid     "id          ID          #REQUIRED"
```


```
    -- required id --
  >
  <!ENTITY % reqlbl      "lbl          CDATA        #REQUIRED"
    -- required label --
  >

  <!ENTITY % emph        "bold | ital"
    -- emphasised text --
  >
  <!ENTITY % refs        "xref | rngref | tempref | noteref"
    -- references --
  >
  <!ENTITY % inline      "quote | ileqn | %emph; | %refs; | super | subscr"
    -- inline text elements --
  >
  <!ENTITY % text        "#PCDATA | %inline;"
    -- inline text elements plus character data --
  >
  <!ENTITY % ref-cont    "#PCDATA"
    -- content of references --
  >
  <!ENTITY % plevel      "p | dpeqn | tblblk | list | blockquote | form"
    -- paragraph level (block) elements --
  >
  <!ENTITY % tblcon      "p | dpeqn | list"
  -- content of table cells --
  >

  <!ENTITY % para-cont       "(%plevel;)+"
    -- content of long-title or section level elements --
  >

  <!ENTITY % unstruct-cont   "((%plevel;)|article|chapter|part|notes)*">

  <!ENTITY % subject     "subject          NAMES        #IMPLIED"
    -- optional subject --
  >
  <!-- ********** End Parameter Entities ********** -->

  <!-- ********** Include Maths and Table elements ********** -->

  <!ENTITY % atimath PUBLIC "-//SGMLSE//ELEMENTS Math Equation
  Structures//EN">
  %atimath;

  <!ENTITY % atitbl PUBLIC "-//SGMLSE//ELEMENTS Table Structures//EN">
  %atitbl;

  <!-- ********** End Maths and Table elements ******** -->

  <!-- Main elements -->
```

```
<!ELEMENT part - - (title, (%plevel;)*, (chapter+|division+|section+)*, notes?)
>
<!ATTLIST part  %reqid;
          %reqlbl;
               %status;
               %subject;
               %consol;
>

<!ELEMENT order - - (title, (division|section|part|schedule)+)
-- in numregs --
>
<!ATTLIST order  %reqid;
          %reqlbl;
               %status;
               %subject;
               %consol;
>

<!ELEMENT division - - (title, (sub-division+|section+))
-- in numregs --
>
<!ATTLIST division  %reqid;
          %reqlbl;
               %status;
               %subject;
               %consol;
>

<!ELEMENT sub-division - - (title, section+)
-- in numregs --
>
<!ATTLIST sub-division  %reqid;
          %reqlbl;
               %status;
               %subject;
               %consol;
>

<!ELEMENT chapter - - (title, (%plevel;)*, (part+|section+|article+)?)
-- part+ and section+ for numacts --
>
<!ATTLIST chapter  %reqid;
          %reqlbl;
            %status;
            %subject;
            %consol;
>

<!ELEMENT article - - (title, (%plevel)*, notes?)
>
<!ATTLIST article  %reqid;
```

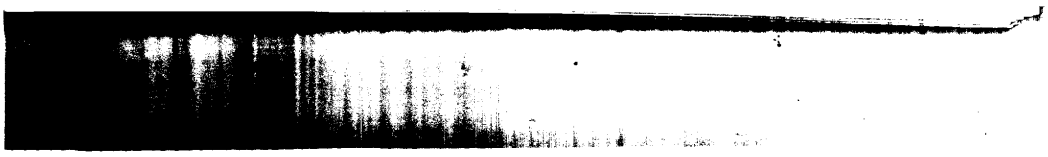
```
                %reqlbl;
                  %status;
                  %subject;
>

<!ELEMENT section - - (title, (%unstruct-cont;))>
<!ATTLIST section
 %reqid;
                %reqlbl;
                  %status;
             astprov NAMES #IMPLIED
                  type (section|rule|reg)section
                  %subject;
                  %consol;
>

<!ELEMENT schedule  - - (title?, (%unstruct-cont;))
   -- Schedule of an Act --
>
<!ATTLIST schedule  %reqid;
                %reqlbl;
                  %status;
                  %subject;
                  %consol;
>

<!-- ********************************************************** -->

<!ELEMENT provisions - - (title, tblblk+)
        -- provisions --
>
<!ATTLIST provisions
                  %subject;
>

<!ELEMENT form - - (title, formreg, front, back?)>
<!ATTLIST form  %reqid;
             %reqlbl;
                  %status;
                  parastyle CDATA #IMPLIED
                  %subject;
>

<!ELEMENT formreg - - (#PCDATA)
-- Regulation --
>
<!ATTLIST formreg
                  %subject;
>

<!ELEMENT front - - (asis)
-- front of form --
```

```
>
<!ATTLIST front
        %subject;
>

<!ELEMENT back - - (asis)
-- back of form --
>
<!ATTLIST back
        %subject;
>

<!ELEMENT asis - - (#PCDATA)
-- text as is --
>
<!ATTLIST asis
        %subject;
>

<!-- ********** Header elements **********-->

<!ELEMENT header   - - (scope?, updated?)>
<!ATTLIST header
        %subject;
>

<!ELEMENT scope - - (%text;)+>
<!ATTLIST scope
        %subject;
>

<!ELEMENT updated - - (%text;)+>
<!ATTLIST updated
        %subject;
>

<!ELEMENT notes   - o (note+)>
<!ATTLIST notes
        %subject;
>

<!ELEMENT note - - (%plevel;)+
>
<!ATTLIST note   id    ID    #REQUIRED
        %subject;
>

<!-- ********** End Header elements **********-->

<!-- ********** structural elements **********-->

<!ELEMENT title   - - (%text;)+
```


```
   -- Generic title --
>

<!-- ******************** End structural elements ********************-->

<!-- ******************** plevel elements ********************-->

<!ELEMENT blockquote    - - (%unstruct-cont;)+
>
<!ATTLIST blockquote parastyle CDATA #IMPLIED
                %subject;
>

<!ELEMENT p     - - (%text;)+
   -- paragraph - a line of text terminated by a carriage return in
     the hardcopy --
>
<!ATTLIST p parastyle CDATA #IMPLIED
                %subject;
>

<!ELEMENT list     - - (li)+
>
<!ATTLIST list parastyle CDATA #IMPLIED
                %subject;
>

<!ELEMENT li       - - (p | blockquote | tblblk | list)+
   -- item in a list --
>
<!ATTLIST li       lbl   CDATA #REQUIRED
                %status;
                %subject;
>

<!ELEMENT tblblk    - - (title?, (table|#PCDATA))
   -- table block --
>
<!ATTLIST tblblk parastyle CDATA #IMPLIED
                %subject;
>

<!ELEMENT dpeqn     - - (fd)
   -- display equation --
>
<!ATTLIST dpeqn parastyle CDATA #IMPLIED>

<!-- ******************** End plevel elements ********************-->

<!-- ******************** inline elements ********************-->

<!ELEMENT xref     - - (%ref-cont;)+
```

```
   -- cross reference to a single target point --
>
<!ATTLIST xref     ref    IDREF      #REQUIRED
>

<!ELEMENT noteref     - O EMPTY
   -- cross reference to a note --
>
<!ATTLIST noteref     ref    IDREF      #REQUIRED
>

<!ELEMENT rngref    - - (%ref-cont;)+
   -- cross reference to a sequential range of target points --
>
<!ATTLIST rngref    startref   NAME       #REQUIRED
                    endref     NAME       #REQUIRED
>

<!ELEMENT tempref     - - (%ref-cont;)+
   -- cross reference to a single target point where the idstring is unknown --
>

<!ELEMENT ileqn     - - (f)
   -- inline equation --
>

<!ELEMENT super     - - (%text;)+   -(super,subscr)
   -- superscript --
>

<!ELEMENT subscr     - - (%text;)+   -(super,subscr)
   -- subscript --
>

<!ELEMENT quote     - - (%text;)+
>

<!ELEMENT bold     - - (%text;)+   -(bold)
   -- text set in bold which is not a title or a label --
>

<!ELEMENT ital     - - (%text;)+   -(ital)
   -- text set in italic which is not a title or a label --
>

<!ELEMENT altered - O EMPTY>
<!ATTLIST altered by CDATA #REQUIRED>

<!-- ******************** End inline elements **********************-->

<!ELEMENT long-title - - (%para-cont;)>
```

```
<!ELEMENT preamble - - (%para-cont;)>
```

CONSOL.DTD

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

   Document Type Definition for the consolidation

   Typical invocation :

   <!DOCTYPE consol PUBLIC "-//SGMLSE//DTD 1.0 Colsolidation//EN" >

   Copyright Aunty Abha's Electronic Publishing Pty. Ltd. 1996, 1997

REVISION History
****************

******************************************************************** -->

<!ENTITY % CONSOL "INCLUDE">

<!-- ****** End common element and entity definitions ********* -->

<!ELEMENT consol     - - (act|reg)+
>

<!-- ****** Include common element and entity definitions ********* -->

<!ENTITY % common
   PUBLIC "-//SGMLSE//ELEMENTS 2.0 Common Elements//EN" >
%common;

<!ENTITY % reg PUBLIC "-//SGMLSE//DTD 1.0 Regulation//EN" >
%reg;

<!ENTITY % act PUBLIC "-//SGMLSE//DTD 1.0 Act//EN" >
%act;
```

APPENDIX C

Relational Database Specifications

TABLE OF CONTENTS

Database Tables Entry Procedure

[A] GENERAL

[A 01] Introduction
[A 02] General Purpose and Structure of the Database
[A 03] General Note about Dates Required for Fields in Database Tables

[B] MASTER TABLE

[B 01] ID FIELD
[B 02] Date of Assent/Date of Notification Field
[B 03] Short Title Field
[B 04] Date of Commencement Field
[B 04.1] Other forms of commencement or notification
[B 05] Date of Expiry Field
[B 06] Type Field
[B 07] Reprint No Field
[B 08] Reprint Date Field

[C] TEXTBLOCK TABLE

[C 01] When the should it be used?
[C 02] ID Field
[C 03] Textblock ID1
[C 04] Textblock ID2
[C 05] Date of Commencement Field
[C 06] Date of Expiry Field

COMMONWEALTH PROJECT

CHAPTER XX - Database Tables Entry Procedure

[A] GENERAL

[A 01] Introduction

- This Chapter is divided into three topics;
  [A] This General topic,
  [B] The Master Table of the Data Base; and
  [C] The Textblock Table of the Data Base.
- All text like this in 10pt Arial font size is "explanatory text and notes" on the data base.
- All text in Courier 9pt font size with a rule on the left hand side is the text used for examples, the text is taken from the Commonwealth data where possible to make it look like the real thing, however, some examples have been created for the purposes of explanation and do not exist in the data itself.
- References in capitals to ACT(S) or REGULATION(S) are references to the whole Acts or Regulations. The word regulation when written with a lower case "r" will refer to a numbered regulation (eg: regulation 2). **Note:** this does not apply to the text of examples which have been left as they appear in the data.
- The word Section written with a capital "S" will refer to the numbered section of an ACT (eg: Section 2). **Note:** this does not apply to the text of examples which have been left as they appear in the data.
- The word Part written with a capital "P" will refer to the means of dividing an ACT known as a Part (eg: Part 2 or Part II). **Note:** this does not apply to the text of examples which have been left as they appear in the data.
- **Note:** the reference to Sections in Commonwealth ACTS and regulations in Commonwealth REGULATIONS is by way of the lowest piece of text first, eg: 8(8)(a) would be written "paragraph 8(8)(a)" not "Section 8(8)(a)".

Note: Fields are out of database structure order in the examples because they appear at different places in the legislation to the structure used in the database tables.

[A 02] General Purpose and Structure of the Database

Purpose

To provide a means of managing, monitoring and checking the content of the Commonwealth Legislation Consolidation.

To allow the time based (versioning) capacity of the DTD and SGML coding being under taken to be realised.

Basic Structure

The database is to consist of two tables.
These Tables will be known as MASTER and TEXTBLOCK.
The specific purpose of each Table will be as follows:-

MASTER will focus on fields that collect data about an ACT or REGULATION as a whole.
TEXTBLOCK will focus on specific sub-elements of the whole of an ACT or REGULATION.

[A 03] General Note about Dates Required for Fields in Database Tables
Dates in the Database will be used primarily to identify two things:

- the beginning of a whole or part of an ACT or REGULATION, or
- the end of the whole or part of an ACT or REGULATION

Entries for dates will all be in the dd/mm/yy formula.

There are 3 ways dates will be appear in the legislation:

- *specific* - are stated in the legislation itself (for example, Date of Assent)
- *to be advised* - are to be published or advised elsewhere (for example, proclaimed in Gazette)
- *conditional* - are based on something else happening (for example, the commencement of another ACT or REGULATION, the creation of or termination of an organisation, the happening of an event)

[B] MASTER TABLE

[B 01] ID FIELD
This is the most important field in the database as it ties all the remaining fields and their information together.

For the example used here, that is, the Social Security Act this will be **Act-19910046.**
This is arrived at by combining,

(i) the *type of legislation*, in this case an ACT - see **(a)** *below*, then
(ii) the *year of enactment/*creation, in this case 1991 - see **(b)** *below*, and finally,
(iii) the *ACT'S Number* - see **(c)** *below*.

All three parts of the ID are important. Inputting the right type, that is, Act for ACTS and Reg for REGULATION etc., and the right year and number is critical as only the correct combination of all three will give the required accuracy.

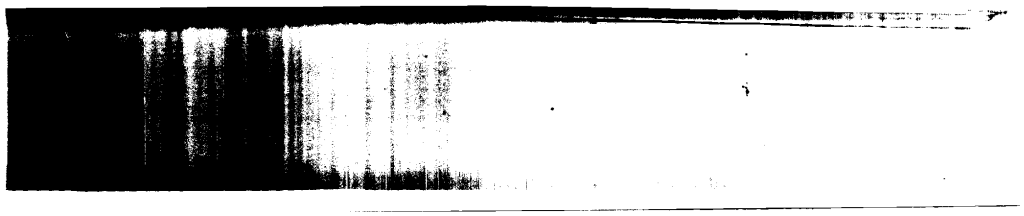
In the ID field the year and number are separated by a hyphen. Also four digits **must** be used for the year number, thus 0046 and **not** 46 is used for the ACT'S number in this example.

An important point to note is that it is possible for an ACT or REGULATION to be known as say the Federal Law Act 1996 but to be Act No 2 of 1997, so that its ID then will be Act-19970002

```
$$#

$$T
SOCIAL SECURITY (a)ACT 1991
- Updated as at 10 July 1995
```

[N:\LIBCC]00790

(366274)



$$T
1 The Social Security Act 1991 as shown in this reprint comprises Act No. **(c)**46, **(b)**1991 amended as indicated in the Tables below.<

[B 02] Date of Assent/Date of Notification Field
This will appear in different places according to the style and type of information.

For ACTS use the Table of Acts at the column Date of Assent. The entry for Act No 46,1991 being the entry for the principal ACT, that is the Social Security Act, is the place to look and the second column shows the date of assent as 23 Apr 1991(see **(d)** *below*).

Table of Acts<

Act Number and year	Date of assent	Date of commencement	Application< saving or< transitional< provisions<
Social Security Act 1991<			
46, 1991	**(d)**23 Apr 1991	1 July 1991<	

For REGULATIONS use the Table of Statutory Rules at the column Date of Notification. The entry for REGULATION No 36,1990 being the entry for the principal REGULATIONS, that is the Cash Transactions Reports Regulations, is the place to look and the second column shows the date of notification as 27 Feb 1990 (see **(e)** *below*).

1 The Cash Transaction Reports Regulations (in force under the Cash Transaction Reports Act 1988) as shown in this reprint comprise Statutory Rules 1990 No. 36 amended as indicated in the Tables below.

Table of Statutory Rules

Year and number	Date of notification in Gazette	Date of commencement	Application, saving or transitional provisions
1990 No. 36	**(e)**27 Feb 1990	27 Feb 1990	

[B 03] Short Title Field
This usually appears in Section 1 of an ACT or regulation 1 of a REGULATION. This is the best place to take the name from as it is the legislated/official way that the ACT, REGULATION etc., is to be referred to etc. See **(f)** *below.*

The name should be entered in full (no abbreviations).
You should include the year even though it is part of the ID and also the words ACT or REGULATION. This will firstly, provide a cross check as normally these should match. It will also indicate those ACTS or REGULATIONS where the Short Title Year is different to the Year and Number in the ID field.

$$A
$$T
SOCIAL SECURITY ACT 1991 - SECT 1<

```
Short title

$$T

$$NSECT
  1. This Act may be cited as the (f)Social Security Act 1991.*1*
$$S
```

[B 04] Date of Commencement Field
This information usually appears in Section 2 for an ACT and regulation 2 for a REGULATION.

This is the best place to take the date of commencement from as here it is part of the legislation/the law and therefore always correct (even if its wrong). If taken from the Table of Acts or Table of Regulations an error would not be correct even if **not** made by us because technically; Tables, Title Pages and even side/margin notes are not considered part of legislation.

See **(g)** *below* for an example.

```
$$T
SOCIAL SECURITY ACT 1991 - SECT 2<
Commencement

$$T

$$NSECT
  2. This Act commences on (g)1 July 1991.
$$A
$$T
```

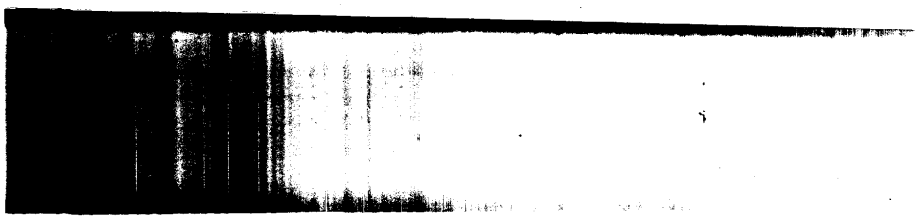
[B 04.1] Other forms of commencement or notification
The example given at **(g)** above is a simple form of commencement in that one date is stated in Section 2.

There are other forms of commencement as follows:-

- ACTS or REGULATIONS *where no date of commencement is specified* enacted on or before 31/12/1937 (that is, there is no Section 2 and no other section dealing with commencement) commence on the day on which the ACT was assented to for ACTS (for example, the Acts Interpretation Act 1901 assented to on 12/7/1901). These Acts require **no** entry in the MASTER TABLE as the Date of Commencement and Date of Assent are the same.

- ACTS or REGULATIONS *where no date of commencement is specified* enacted on or after 1/1/1938 (that is, there is no Section 2 and no other section dealing with commencement) then the Act by default commences on 28th day after the Date of Assent. These Acts **do** require an entry in the MASTER TABLE as the Date of Commencement and Date of Assent are not the same.

- ACTS or REGULATIONS where various Parts, Sections, regulations etc., commence on different dates or on dates to be proclaimed or notified in Gazette.



- ACTS or REGULATIONS where various Parts, Sections, regulations etc., commence the commencement of another ACT, REGULATION or Part or Section of another ACT or REGULATION etc.

Note: With respect to the calculation of time (as for example, in the case of commencement 28 days after assent) Section 36 of the Acts Interpretation Act affects how this is done. Section 36 provides:

- Where in an ACT any period of time, dating from a given day, act, or event, is prescribed or allowed for any purpose, the time shall, unless the contrary intention appears, be reckoned exclusive of such day or of the day of such act or event.

- Where the last day of any period prescribed or allowed by an ACT for the doing of anything falls on a Saturday, on a Sunday or on a day which is a public holiday or a bank holiday in the place in which the thing is to be or may be done, the thing may be done on the first day following which is not a Saturday, a Sunday or a public holiday or bank holiday in that place.

The above will be handled in Australia with respect ot those ACTS or REGULATIONS to which this applies.

[B 05] Date of Expiry Field
This is the opposite of commencement; that is, it indicates when the whole of an ACT or REGULATION or some Part, Section or regulation in an ACT or REGULATION ceases to have effect.

Note: because the expiry is provided for in the ACT or REGULATION itself, this is different to a repeal. The effect is however, the same.

Sections or Regulations relevant to this field are headed "Sunset clause" or "Sunset provision" see **(h)** *below.*

Note: the use of the words "unless sooner repealed" in the examples *below.* This means entries will need to be checked or reviewed to ensure that ACT or REGULATION has not been sooner repealed.

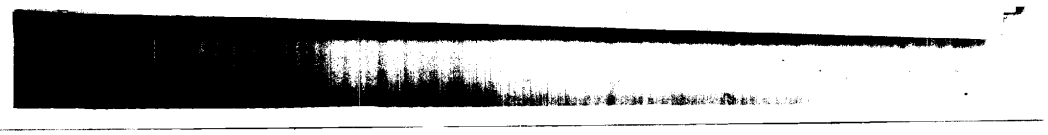
The date or timing of expiry is indicated/expressed in a few different ways:
by a specific date , see **(i)** *below.*
by a period of years, see **(j)** *below.*

- Examples of expiry of the whole ACT by a specific date.

```
AUSTRALIAN MEAT AND LIVE-STOCK (QUOTAS) ACT 1990 -
Updated as at 18 July 1995
.....................
SECT 9
Sunset clause (h)
9. This Act, unless sooner repealed, shall cease to be in force at
the (i)end of 30 June 1998.
```

Note: the example *above* uses the words "cease to be in force" and the one *below* the words "ceases to have effect". The result is still the same for our purpose.

[N:\LIBCC]00790



```
MEAT AND LIVE -STOCK INDUSTRY ACT 1995 No. 67 of 1995 -
Assented to 30 June 1995
.....................
SECT 227
Sunset clause
227. This Act, unless sooner repealed, ceases to have
effect at the end of 30 June 1998.
```

- Example of expiry of Part, Division, Subdivision or Section of ACT after a specified period of years.

```
NATIVE TITLE ACT 1993
Updated as at 30 June 1995
.........................
SECT 207
Sunset provision
207. This Part ceases to be in force at the (j)end of 5
years after the Parliamentary Joint Committee is first
appointed.
```

- Examples of expiry of a portion of a REGULATION

```
FEDERAL COURT RULES
Updated as at 22 March 1996
.............................
ORDER 75 NATIVE TITLE RULES
  NATIVE TITLE ACT 1993
.............................
ORDER 75
RULE 21
Sunset provision
21. Order 75 ceases to be in force on 1 March 1997.
```

```
MIGRATION (1993) REGULATIONS - Updated as at 25 July
1994
.............................................
REG 2A
10A
Sunset provision
2A.10A. No application may be made under this Division
on or after 1 July 1993.
```

[B 06] Type Field
This Field provides more specific information about the type of legislation.

It is different to the ID Field described above which gives the legislation a unique ID.

This Field uses three single character codes to describe the legislation.

These are as follows:

P = *Principal* ACTS or REGULATIONS.

It indicates that this is the main or Principal ACT or REGULATION.
OR In other words the ACT or REGULATION which gets amended.

Principal ACTS or REGULATIONS can be either in existence (enacted in previous years) or newly enacted (created in the current year).

There is nothing specifically unique or different in a principal ACT or REGULATION that makes it easy to identify. By elimination it is however, possible to say what is not a Principal ACT or REGULATION. This is done by looking at the ACT or REGULATION'S title information. Amending Acts or Regulations (which are dealt with next) usually contain the word's "Amending", "Amendment", "Repeal" or "Statute Law Revision" in their Short Title. Another indicator in the case of ACTS is that the Long Title will also contain the word's "Amending", "Amendment", "Repeal" or "Statute Law Revision" (REGULATIONS however, do not have a Long Title).

The example marked **(K)** and **(J)** *below* shows the Long and Short Titles for a Principal Act known as the Trade Practices Act. (Compare these examples with the ones marked (L) and (M) *below).*

LONG TITLE **(K)**
An Act relating to certain Trade Practices

PART I-PRELIMINARY

SECT 1
Short title **(J)**
1. This Act may be cited as the Trade Practices Act 1974.*1*
SEE NOTES TO FIRST ARTICLE OF THIS CHAPTER .

Note: A principal ACT or REGULATION can contain amendments to other ACTS or REGULATIONS. It therefore, still needs to be considered for its effect on other ACTS.

A = *Amending* ACTS or REGULATIONS.
It indicates that this is a changing or Amending ACT or REGULATION.
OR In other words the ACT or REGULATION which does the amending.

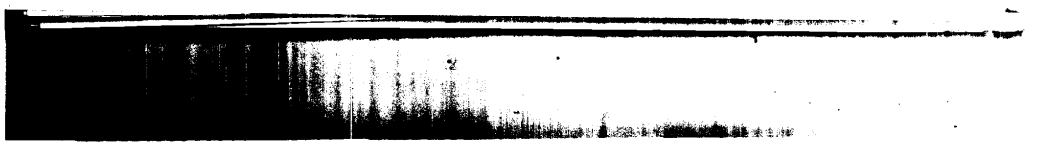
Amending ACTS or REGULATIONS will not generally exist in their own right in the consolidated information for which we are creating the data base. The changes they effect will nearly always become part of the Principal ACT or REGULATION.

There are some rare exceptions to the above point however, which will need to be identified - (the way to do this most effectively will be to identify them in Australia and provide a list or table of what these ACTS and REGULATIONS are).

As already stated the best ways to identify an Amending ACT or REGULATION are:

Amending ACTS or REGULATIONS will nearly always contain the word's "Amending", "Amendment", "Repeal" or "Statute Law Revision" in their Short Title.

For Acts (but not Regulations) there is also a Long Title at the very beginning of the Act (usually before Section 1) which will also contain the word's "Amending" "Amendment", "Repeal" or "Statute Law Revision".



The example marked **(L)** and **(M)** *below* shows the Long and Short Titles for the Amending ACT known as the Trade Practices (Secondary Boycotts) Amendment Act 1979.

LONG TITLE **(L)**
An Act to amend the Trade Practices Act 1974 with respect Secondary Boycotts and other industrial practices.

PART I-PRELIMINARY

SECT 1
Short title **(M)**
1. This Act may be cited as the Trade Practices (Secondary Boycotts) Amendment Act 1979.*1*
SEE NOTES TO FIRST ARTICLE OF THIS CHAPTER .

Note: An Amending ACT or REGULATION can be amended itself by a further amending ACT or REGULATION.

More Examples of Amending ACTS and REGULATIONS
Following are some more examples of Amending ACTS and REGULATIONS and what to look for.

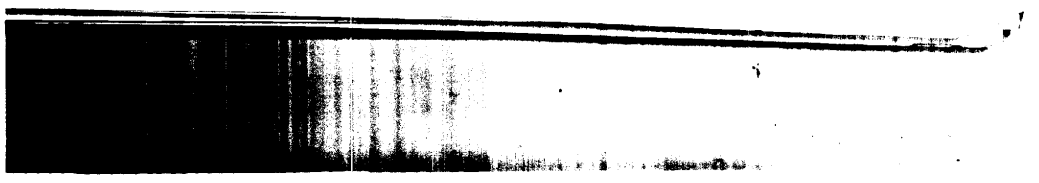
Statute Law Revision Acts
Below are two examples of these. Usually, this is clean up legislation which makes many changes and often effects a larger number of ACTS. They can be specific as in the case of the Decimal Currency example or they can be general as in the case of the 1973 example.
They can both change (amend Parts, Divisions and Sections of ACTS and REGULATIONS) and/or delete (repeal) whole ACTS and REGULATION or Parts, Divisions and Sections.

Statute Law Revision (Decimal Currency) Act 1966
Statute Law Revision Act 1973

There are other form of Amending ACT similar to the Statute Law Revision Acts as follows:

A.C.T. Self-Government (Consequential Provisions) Regulations 1989 No. 3
Defence Legislation Amendment Act 1984
Fringe Benefits Tax (Miscellaneous Provisions) Act 1986
Statute Law (Miscellaneous Provisions) Act (No. 1) 1986
Taxation Laws Amendment Act (No. 3) 1986

The above can usually be spotted by the use of words such as "Consequential Provisions" "Laws Amendment", "Legislation Amendment", "Miscellaneous Provisions" in their Short Titles.



Repeal Acts
Below are two examples of these. One where the term Legislation is used in the title indicating that more many ACTS are being repealed. Again this is often clean up legislation which repeals many ACTS whose purpose or reason for being has lapsed. Alternatively, as the second example indicates Repeal ACTS can be specific, effecting the repeal of only one ACT.

```
|Egg Export Legislation Repeal Act 1984
|National Welfare Fund Repeal Act
```

N = Not known
Indicates that the type of the ACT or REGULATION is not known or cannot be deterimined. These records will the be handled in Australia.

[B 07] Reprint No Field
The information required for this field does not appear in the Commonwealth Data as presently supplied to/held by us. It will need initially to be obtained in the form of a list of existing reprints and their numbers and be added to both the Commonwealth data and the data base as a once only job. It will then need to be maintained on a monthly basis using the two AGPS Pamphlet Publications known as ACTS TABLES for Acts and STATUTORY RULES TABLES for Regulations, the last page in each contains this information for the current year. **Note:** where the Pamphlets are not available or the reprint number is not known or unavailable then the number 999 should be used to indicate this.

Each of the two tables from the Pamphlets contains the name of the Reprinted ACT or REGULATION in alphabetical order (but see Statutory Rules example below) followed by the date of reprint, then followed by the words "Reprint No." and a number. It is this last number that needs to be entered.

ACTS TABLE entry example

|*National Health Act 1935* (20 September 1996) Reprint No. 5

STATUTORY RULES TABLE entry example
Note: Statutory Rules are listed by their parent Act (the Act under which the are made appearing in Italic as shown in the example below).

```
|Banks (Shareholdings) Act 1972 --
        Banks (Shareholdings) Regulations (2 August 1995) Reprint No.
|2
```

[B 08] Reprint Date Field
Like the Reprint Number discussed in **[B 07]** *above* the information required for this field does not appear in the Commonwealth Data as presently supplied to/held by us. It too will need initially to be obtained in the form of a list of existing reprints and be added to both the Commonwealth data and the data base as a once only job. It will then need to be maintained on a monthly basis using the two AGPS Pamphlet Publications known as ACTS TABLES for ACTS and STATUTORY RULES TABLES for Regulations, the last page in each contains this information for the current year.

Each of the two tables contains the name of the Reprinted ACT or REGULATION in alphabetical order (but see Statutory Rules example below) followed by the date of reprint, then followed by the words "Reprint No." and a number.

For this field it is the Date preceding the Reprint Number that needs to be entered. For examples see the examples at **[B 07]** *above*.

Note: Again where the Pamphlets are not available or the reprint date is not known or unavailable then the date 00/00/00 should be used to indicate this.