Appendix F – Part 11

Defendants' Supplemental Prior Art Statement
'228 Patent
(TC1530-TC1557)

to

TimeBase's Memorandum in Support of Its Motion
for Summary Judgment of No Invalidity

Prior Art Analysis

318.

- **Anwar 1996:**

  Anwar 1996 discloses "wherein the results are produced using one or more attributes." Specifically, Anwar 1996 discloses a method for querying data, including text-based data, on its attributes. For example:

  - *See, e.g.,* "The multi-dimensional display and manipulation system includes an [sic] user interface and a multi-dimensional data object subsystem where the subsystem includes means for . . . retrieving. . . multi-dimensional data objects and the user interface includes means for displaying and graphically manipulating the multi-dimensional data objects in a window defined on a display device," at Summary of the Invention.

  - *See, e.g.,* Analysis Scenario 1, starting at 14:64–16:39, describing ways in which a user can formulate multi-dimensional queries using the attributes of the stored data.

- **Arnold-Moore 1994:**

  Arnold-Moore 1994 discloses "the results are produced using one or more attributes." Specifically, Arnold-Moore 1994 discloses a means of filtering through legislative material based on effective dates. For example:

  - *See, e.g.,* "Queries can use these indices to return a subset of the database which can then be filtered on time constraints," at *xvi*.

  - *See, e.g.,* "A time index on the version skeleton can be maintained independently of the content index to filter versions on time," at *xix*.

- **Arnold-Moore 1994-2:**

  Arnold-Moore 1994-2 discloses "the results are produced using one or more attributes." Specifically, Arnold-Moore 1994-2 discloses searching either by keyword, by attribute, or by a combination. For example:

  - *See, e.g.,* "The language, Structured Generalized Query Language (SGQL), allows efficient access to the content, structure and attributes of documents at any level within their structure," at THOM00196608.

  - *See, e.g.,* "Queries might specify that certain attributes have particular values, but have concentrated on matching against the content of the document," at THOM00196608.

  - *See, e.g.,* "These databases will need to be searched by attribute," at

290

TC1530

Prior Art Analysis

THOM00196608.

- *See, e.g.*, "We thus see that a database system to support databases of large structured documents need a query language that allows retrieval: by exact matching Boolean combinations of words and phrases; by ranking by similarity to a given text; using hypertext links; by attribute," at THOM00106609.

- *See, e.g.*, Representative Queries at THOM00196609-10.

- *See, e.g.*, "The relational model extended to support content queries can support a whole range of queries including mixed content and structure, pure structure, and attribute queries," at THOM00196610.

- **Arnold-Moore 1997:**

  Arnold-Moore 1997 discloses "the results are produced using one or more attributes." Specifically, Arnold-Moore 1997 discloses searching by keywords and by attributes such as effective date. For example:

  - *See, e.g.*, "The drafter can view any Act or search the whole database using Boolean or ranking queries at any time point for which a valid version is stored on the system," at 59.

- **Arnold-Moore 1997-2:**

  Arnold-Moore 1997-2 discloses "the results are produced using one or more attributes." Specifically, Arnold-Moore 1997-2 discloses a means of filtering legislative material based on effective dates. For example:

  - *See, e.g.*, "Despite improved performance of ranking (or natural language) queries, lawyers who have used digital legal libraries will be most familiar with the Boolean query approach," at 177.

  - *See, e.g.*, "The SIM system supports both Boolean (with proximity operators) and ranking queries," at 177.

  - *See, e.g.*, "A standard inverted-file word index can be used to extract a list of matching documents on content (or an enhanced index to allow queries on structure also), and then this list can be filtered by a time constraint using a time-index," at 179.

  - *See, e.g.*, "Each fragment or table of contents has a valid start and end time associated with it. We then use an inverted-file index to give access to the fragments by content. As described for whole documents, we then filter results using the time information to collect just the fragments which are valid at the specified time

291

TC1531

Prior Art Analysis
defaulting to the current date (See Figure 1)," at 179.

- **Bachman 1973:**

  Bachman 1973 discloses "the results are produced using one or more attributes." Specifically, Bachman 1973 discloses searching by attributes, which he describes as "data keys." For example:

  - *See, e.g.,* "In sequential file technology, search techniques are well established. Start with the value of the primary data key, of the record of interest, and pass each record in the file through core memory until the desired record, or one with a higher key, is found. (A primary data key is a field within a record which makes that a record unique within the file.) Social security numbers, purchase order numbers, insurance policy numbers, bank account numbers are all primary data keys. Almost without exception, they are synthetic attributes specifically designed and created for the purpose of uniqueness. Natural attributes, e.g. names of people and places, dates, time, and quantities, are not assuredly unique and thus cannot be used," at 654.

  - *See, e.g.,* "Database management has two main functions. First is the inquiry or retrieval activity that reaccesses previously stored data in order to determine the recorded status of some real world entity or relationship," at 654.

  - *See, e.g.,* "In addition to a record's primary key, it is frequently desirable to be able to retrieve records on the basis of the value of some other fields. For example, it may be desirable, in planning ten-year awards, to select all the employee records with the 'year-of-hire' field value equal to 1964. Such access is retrieval by secondary data key. The actual number of records to be retrieved by a secondary key is unpredictable and may vary from zero to possibly include the entire file. By contract, a primary data key will retrieve a maximum of one record," at 655.

  - *See, e.g.,* "With the advent of retrieval on secondary data keys, the previously one-dimensional data space received additional dimensions equal to the number of fields in the record," at 655.

- **Bentley 1979:**

  Bentley 1979 discloses "the results are produced using one or more attributes." Specifically, Bentley 1979 discloses six alternative methods for searching in the disclosed k-dimensional space using attributes. For example:

  - *See, e.g.,* "In this section we investigate a number of search methods for range searching," at 398.

  - *See generally* 398-405.

292

TC1532

Prior Art Analysis

- **Campbell 1988:**

  Campbell 1988 discloses "the results are produced using one or more attributes."
  Specifically, Campbell 1988 discloses searching the stored data by attribute. For
  example:

  - *See, e.g.,* "The HAM maintains history for these objects, allows selective access
    through a filtering mechanism…," at 856.

  - *See, e.g.,* "Attributes are also used in the predicates that are part of the HAM filters,"
    at 857.

  - *See, e.g.,* "The HAM provides a filtering mechanism that allows subsets of HAM
    objects to be extracted from large graphs. Filters allow the user to specify visibility
    predicates, which are expressions relating to attributes and their values. HAM filters
    only return objects that satisfy the predicates. Filters also allow the user to specify a
    version time so that earlier versions of a graph can be examined," at 857.

  - *See, e.g.,* "*Get operations* retrieve data from existing objects. A get operation takes
    an object index and a version time, and returns the data that existed at the specified
    time. The object index specifies a unique identifier for the object from which data is
    being retrieved. The version time is a time range for the data retrieval," at 858.

  - *See, e.g.,* "*Filter* (and linearize) *operations* selectively retrieve information from a
    graph. A filter operation takes a predicate, a version time, and a list of attributes.
    These operations return a list of objects that satisfy the predicate and a list of
    requested attributes attached to each object. The version time specifies the time at
    which the filter is to search for the information. Each filter operation also has unique
    parameters in addition to those already specified," at 858.

- **Caplinger 1986:**

  Caplinger 1986 discloses "wherein the results are produced using one or more attributes."
  Specifically, Caplinger 1986 discloses a computer system for that allows a user to search
  using attributes. For example:

  - *See, e.g.,* "A user could ask the system to zoom in on a particular group of ships,
    which were then shown as icons based on ship type, along with additional textual
    information like the ships' names and nationalities," at 114–15.

- **Elmasri 1990:**

  Elmasri discloses "wherein the results are produced using one or more attributes."
  Specifically, Elmasri discloses searching information by ranges of effective dates. For
  example:

Prior Art Analysis

- *See, e.g.*, "A time index for temporal databases is provided which enables the retrieval of database object versions that are valid during specified time periods. Unlike prior access and retrieval structures, the present index is based on objects whose search values are time intervals rather than time points." Abstract.

- *See, e.g.*, "The present invention provides a time indexing procedure which is particularly useful with object versioning structured temporal computer databases for the efficient processing of temporal operations requiring reference to time intervals." Summary of the Invention.

- *See, e.g.*, "A search for objects that satisfy such a temporal condition combines selection based on a time interval with a selection based on conditions involving attribute values." Summary of the Invention.

- **Haake 1992:**

  Haake 1992 discloses "the results are produced using one or more attributes." Specifically, Haake discloses a means for searching its text-based information using attributes. For example:

  - *See, e.g.*, "CHS offers nodes, links, and composites that can be equipped with application-defined attributes. Objects can be accessed by their attribute values using the query language of the underlying database system of CHS," at 46.

- **Horne 1997:**

  Horne 1997 discloses "the results are produced using one or more attributes." Specifically, Horne 1997 discloses searching by attributes such as effective date. For example:

  - *See, e.g.*, "But markup could go further. It could give the dates on which the amendments were made, the dates on which they took effect, and the names of the Acts or SI which had made them, and the user's program could use this markup to display a statute as it was on a particular date chosen by the user and could offer hypertext cross-references to the amending legislation," at 3.

  - *See, e.g.*, "There is a 'front-end' program which can be used to search the database and to display the results in HTML. So the user should be able to use the program to discover easily what the law is on a particular point on a particular date," at 3.

- **Kim 1996:**

  Kim 1996 discloses "the results are produced using one or more attributes." Specifically, Kim 1996 discloses searching either by keyword or attribute. For example:

  - *See, e.g.*, "First, since our hypermedia markup language is designed using SGML,

294

TC1534

Prior Art Analysis

the language can … support content-based and structure-based retrieval," at 496.

- *See, e.g.,* "Therefore, it is necessary to support content-based and structure-based retrieval as well as database mechanisms for hypermedia documents," at 496.

- *See, e.g.,* "Therefore, it is necessary to support an efficient information retrieval, which provides content and structure-based retrieval, and database query mechanism. Besides, the content-based retrieval method searches every object, which consists of the hypermedia network, and the object contents. On the other hand, the structure-based retrieval searches the logical and hypermedia network structures," at 498.

- *See, e.g.,* "Since the data about document structure and attribute values can be stored as instances in the database, Postgres can directly process the structure-based retrieval. The other is a content-based retrieval. When a content-based retrieval query is given, the information retrieval manager performs full-text retrieval against the hypermedia document database," at 500.

- *See, e.g.,* "For this reason, we design a new query language which supports both an information retrieval mechanism and a database query mechanism for handling structure hypermedia documents," at 500.

- *See, e.g.,* "Element attribute search," at 501.

- **Larson 1988:**

  Larson 1988 discloses "the results are produced using one or more attributes." Specifically, Larson 1988 discloses attribute/value pairs that can be searched. For example:

  - *See, e.g.,* "Neptune also permits any number of descriptive attribute/value pairs to be assigned to any node or link, which may be searched," at 196.

  - *See, e.g.,* "The indexes supported in Telesophy include a keyword index (providing Boolean and proximity searching), a 'temporal index' that permits selection by the time an IU was created, and a 'spatial index' that 'places items in an N-dimensional space based on their attributes, then allows the space to be searched," at 197.

- **Lo 1996:**

  Lo 1996 discloses "wherein said the results are produced using one or more attributes." Specifically, Lo 1996 discloses a querying a document management system using attributes such as author and title. For example:

  - *See, e.g.,* "While it is reasonable to index the title and author field of a document, it is pointless to index or query against the whole piece of text because consequently at

Prior Art Analysis

most only one document would match a given query," at 8–9, section 1.2.2.

- *See generally* pages 36–37.

- *See, e.g.,* "All the attributes in both database are indexed by the SIM DBS and are thus searchable," at 113.

- **Povilus 1995:**

  Povilus 1995 discloses, teaches or renders obvious this claim for the reasons stated by the Patent Examiner in the Office Action of March 24, 2000 (incorporated herein by reference) and others.

- **Sacks-Davis 1994:**

  Sacks-Davis 1994 discloses "the results are produced using one or more attributes." Specifically, Sacks-Davis 1994 discloses searching either by keyword or attribute. For example:

  - *See, e.g.,* "There is also sufficient information in the DTD to allow the application level to provide information to the user about the elements and attributes which are available for query for each different type of document in the database," at THOM00198836.

  - *See, e.g.,* "SGML's power can be utilized to create additional types of query over the whole database on the structural characteristics of the documents," at THOM00198839.

  - *See, e.g.,* "We also want to be able to query on SGML attributes, for instance: Query 7.1 Find <corres>s with attribute confidential = yes," at THOM00198839.

- **Sacks-Davis 1995:**

  Sacks-Davis 1995 discloses "the results are produced using one or more attributes." Specifically, Sacks-Davis 1995 discloses searching either by keyword or attribute. For example:

  - *See, e.g.,* "Text retrieval systems should have the ability to manipulate structured information and attributes, as do conventional database systems. Thus a text system should, for example, be able to refer to a paragraph within a section, a date of publication, or to one of a list of authors," at 454.

- **Sciore 1991:**

  Sciore 1991 discloses "the results are produced using one or more attributes." Specifically, Sciore 1991 discloses searching either by keyword or attribute. For

296

Prior Art Analysis

example:
 	
• *See, e.g.*, "At the conceptual level, we show how versions can be chosen from a version set based on the values of their attributes," at 356-57.
 	
• *See, e.g.*, "The attribute occuredAT records the time at which the change took place. This attribute can be thought of as defining a one-dimensional time line, and allows the version set to be viewed as a function from times to versions," at 364.
 	
• *See, e.g.*, "In general, the attributes chosen as dimensions should form a key of the version set, so that at most one version is associated with any coordinate in the version space," at 366.
 	
• *See, e.g.*, "Our framework provides the means by which a database designer can specify a multi-dimensional logical structure to the version set. This logical structure can then be used to choose versions easily and conveniently," at 367.
 	
• **Sciore 1994:**
 	
Sciore 1994 discloses "the results are produced using one or more attributes." Specifically, Sciore 1994 discloses, for its bicycle example, queries using the attributes of style, number of speeds, frame, and design date. For example:
 	
  • *See generally* 81-83.
 	
• **Stonebraker 1990:**
 	
Stonebraker 1990 discloses "wherein said the results are produced using one or more attributes." Specifically, Stonebraker 1990 discloses that users may query the POSTGRES database using attributes. For example:
 	
  • *See generally* section II.B, starting on page 127 (demonstrating numerous examples of queries using attributes).
 	
• **Stonebraker 1994:**
 	
Stonebraker 1994 discloses "wherein the results are produced using one or more attributes." Specifically, Stonebraker 1994 discloses a multidimensional space stored in a POSTGRES database. Stonebraker 1994 further discloses navigation along the dimensional axes using attributes. For example:
 	
  • "Each object may be of an arbitrary type, but it must have associated with it a **geometry**. The geometry of an object describes its location in an **application coordinate space**. All objects in an application are located in this common N-dimensional coordinate system, whose dimensions are appropriate to the specific application. The geometry of an object may be either a polygon [footnote text: "In

297

Prior Art Analysis
this document, 'polygon' refers to a general N-dimensional polyhedron, not merely a two-dimensional polygon."] or a point. It is the job of the human recipe designer to ensure that the recipe produces the geometry representation (polygon or point) expected by some browser. Failure to provide this will result in a type mismatch. To achieve a common polygon representation, we have defined a standard N-dimensional polygon, **N-D-polygon**. The generic tuple passed from the browser from a recipe will have the form: {value, type, location}. The value can be an instance of a base type or a composite type, and its location is represented by the N-D-polygon as indicated. For example, the value might be a satellite image; its type might be AVHRR, and the location associated with it might be a rectangle representing one of the quadrants of a U.S. Geological Survey map," at 4.

- "The browser has three ways to relocate its position in N-space: it can move to a previously designated identifier, it can move to a specific N-D-point which it calculates in some fashion, or it can move in some direction, denoted by $(\Delta_1, ..., \Delta_N)$ until some condition F(value) <operator> <constant> is true. This third relocation command is useful, for example, if a user is browsing Hurricane Hugo, and wishes to **fast-forward** the hurricane, i.e. skip or skim through images sorted by time, until Hugo hits land. If landfall of the hurricane can be expressed as a predicate, then the appropriate MOVE command would look like MOVE along (0,0,...,+1) until hits_land(Hurricane.hugo) = TRUE. The +1 means a movement along the positive time axis, assuming time is the last dimension in this coordinate system. Note that recipes may be fast-forwarded in this fashion in any dimension," at 5.

- **Taylor 1994:**

  Taylor 1994 discloses "said the results are produced using one or more attributes." Specifically, Taylor 1994 discloses searches on attributes such as time. For example:

  - "We have implemented several operators that reflect the relationships between temporal periods. . . . These operators accept a temporal term and returns [sic] a set of temporal terms satisfying the operator," at 241.

  - "The combination of the conceptual, temporal and geographical classification spaces and their respective operators means that information requests do not need to be limited to one particular dimension. They can be multi-dimensional. An example of such a query would be: Show me Costume from Pontypridd during the Victorian era. The temporal dimension provides a method by which a temporal walk through a concept can be obtained. A temporal walk consists of showing the development of an historical concept or geographic area over time. In practical terms this requires the ordering of a set of media items according to the information stored in the temporal schema," at 242.

  - "The results of navigation produce classification terms rather than media items. To convert the classes to media sets a query is formulated to identify which media items

Prior Art Analysis

have the terms as attributes," at 240.

- **Travis & Waldt:**

  Travis & Waldt discloses "the results are produced using one or more attributes."
  Specifically, Travis & Waldt discloses SGML browsers that can conduct searches on the
  stored text-based data either by keyword or by attribute, or both. For example:

  - *See, e.g.,* "SGML browsers offer context-sensitive searching capabilities so that the
    user can quickly access the required information . . . . For example, a search can be
    defined to allow a user to search for a part number, but only if it is contained in a
    chapter that was updated after a certain date. Or, a user can have the browser return
    a list of all sections containing a particular phrase, but only if the phrase is contained
    in a note. These are examples of context-sensitive searches," at 52-53.

  - *See, e.g.,* pages 194–95 (and figure 61), 198 (and figure 64).

  - *See, e.g.,* "The loader also makes available to the database parameterized information
    that can be used later to search and retrieve the appropriate objects. Such parameter
    information is object identifiers, author names, creation and modification dates, and
    perhaps some keywords. Most of this information can be obtained by querying the
    attributes on the element tags in the content of the document object," at 204.

- **Wilkinson 1998:**

  Wilkinson 1998 discloses "wherein said the results are produced using one or more
  attributes." Specifically, Wilkinson 1998 discloses searching on attributes of
  documents. For example:

  - *See generally* section 5.6, beginning on page 93 (entitled "Access by Metadata").

  - *See, e.g.,* "Most metadata is organized as a set of (attribute, value) pairs. Thus we
    need a structure that can support queries of the form 'which documents have value A
    for attribute B?'" at 100.

- **Wilson 1990:**

  Wilson 1990 discloses "the results are produced using one or more attributes."
  Specifically, Wilson 1990 discloses searching either by keyword or attribute. For
  example:

  - *See, e.g.,* "When the user enters the Justus running under Guide he is given a choice
    of three methods of access: direct access, index of pre-defined terms, and boolean
    query," at 125.

  - *See, e.g.,* "it is easy to provide a structured index composed of the terms appearing in

Prior Art Analysis

the catchwords section," at 125.

- **Wilson 1992:**

  Wilson 1992 discloses "the results are produced using one or more attributes."
  Specifically, Wilson 1992 discloses examples of searches conducted by author name,
  key word, and date, all of which constitute attributes. For example:

  - *See generally* 183.

- **The Pre-1997 Westlaw/Westmate System:**

  The Westlaw/Westmate system contained a means for searching portions and amended
  portions of legislation using attributes. For example:

  - *See, e.g.,* DataBasics 1993, ("United States Code Annotated"): Disclosing
    mechanisms for searching using attributes, at doc no. 79858-59.

  - *See, e.g.,* Westlaw DB 1991, (disclosing the mechanism for searching the Westlaw
    databases using attributes), at 2–5, 14–15.

  - *See, e.g.,* Wren 1994, "you can use a field-restricted search request in LEXIS or
    WESTLAW to conduct highly specialized searches that would be nearly
    impossible—or at least tremendously tedious and time-consuming—to perform
    without a computer," at 75.

  - The Essential Guide 1996, at 29: "The citation field is the part of a document
    containing the citation. When you restrict your search to the citation field, you
    specify that WESTLAW search only the citation field of a document. By limiting
    your search in this way, you avoid retrieving extraneous documents."

  - The Essential Guide 1996, at 47: "You can use restrictions to limit your WIN search.
    For example, in a case law database, you can restrict your search by court, date,
    judge, attorney or added date."

  - *See generally* The Essential Guide 1996, at "Chapter 9 Searching Statutes
    Databases"

- **The Pre-1997 Premise System:**

  The Premise system contained a means for searching portions and amended portions of
  legislation using attributes. For example:

  - *See, e.g.,* Premise Software & Statutes: Select "Search/Search Book…" and then
    change the "Search Using" field to "Fields Template," which will then display a

Prior Art Analysis

mechanism for searching the portions and amended portions using attributes.

- **The Astoria System (pre-1997):**

  The Astoria System contained a means for searching portions and amended portions of text-based data using attributes. Use of this system therefore constitutes a method wherein the results are produced using one or more attributes. For example:

  - *See, e.g.,* Astoria 1997-1: "Astoria provides a multilingual engine that lets users search on document content, structure, attributes, and version information," at THOM00211909.

- **The EnAct System** (previously known as Themis):

  The EnAct system has a means for searching its text-based information using attributes. For example:

  - *See, e.g.,* Arnold-Moore 1997-2, figure 1 (showing ability to search the information with various attributes), and ("The SIM client/server architecture is built around Z39.50 [a standard for searching using attributes],") at 178, 177.

- **The SCALEplus System:**

  The SCALEplus system has a means for searching using attributes. For example:

  - *See, e.g.,* Kerr 2000, Figures accompanying ¶ 180 (page 6-4), ¶ 187 (page 6-6), ¶ 429 (page 11-3), ¶ 491 (page 11-19), ¶ 172 (page 6-2).

  - SCALEplus UM 2: "Data in Scale is organised into separate HTML files that can be viewed through a Web browser. Each document contains sections which are called zones. These zones can be searched using the 'In' operator. Each document also has fields such as 'name' and 'date' associated with the document. These can also be searched using the 'contains' operator."

  - SCALEplus UM 2: "Advanced Search Screen" at THOM00221692 and text describing the features on that screen, including the "Date Search Options."

  - SCALEplus UM 2: "Results List Page" screen shot and the text describing this screen shot. (THOM00221697)

- **The Documentum/Interleaf System:**

  The Documentum/Interleaf system allows searching of text-based data based on attributes. *See, e.g.*:

  - *See, e.g.,* Ovum Interleaf 1996, "It is possible to search on attribute combinations and

301

TC1541

Prior Art Analysis

combine these using Boolean operators," at 262 (and figure H2.6).
 	
   •   *See, e.g.,* <u>Ovum Documentum 1996</u>, "Documentum exposes just about all a document's attributes to querying," at 220 (and figure H1.10).
 	
• **The Core Materials on Legal Ethics System:**
 	
   The Core Materials on Legal Ethics system contained a means for searching using attributes.
 	
• **The Federal Rules of Civil Procedure System:**
 	
   The Federal Rules of Civil Procedure system contained a means for searching using attributes.
 	
• **The Law Desk NY System:**
 	
   The Law Desk NY system contained a means for searching using attributes.
 	
• **The Law Desk USCS System:**
 	
   The Law Desk USCS system contained a means for searching using attributes.
 	
• **The New Mexico Law System:**
 	
   The New Mexico Law on Legal Ethics system contained a means for searching using attributes.
 	
• **The NY Official Reports System:**
 	
   The NY Official Reports system contained a means for searching using attributes.
 	
• **The NY CLS Beta System:**
 	
   The NY CLS Beta system contained a means for searching using attributes.
 	
• **The OnPoint System:**
 	
   The OnPoint system contained a means for searching using attributes.
 	
• **The UCC System:**
 	
   The UCC system contained a means for searching using attributes.

Claim 15: In addition to the prior art listed above in conjunction with Claim 13, and Subject to the Court's claim construction, and given Defendants' understanding of Plaintiff's

TC1542

Prior Art Analysis
incomplete contentions regarding the construction and application of the claims, the following references disclose, teach or render obvious Claim 15:

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

- **Agosti 1991:**

  Agosti 1991 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Agosti 1991 discloses links between stored text-based documents, including links defined by the auxiliary data stored at the hyperconcept level. For example:

  - *See, e.g.,* "The representation of an object at this level is made by means of: connections to documents which are related to it…connections to the auxiliary data items," at 318.

  - *See, e.g.,* "The collection of document objects is organised at the first level of the architecture as a 'hyperdocument', that is in the form of a lattice structure," at 318.

  - *See, e.g.,* "The hyperdocument is made up of a network of structural links combined with the network of reference links…This means that the user may choose to follow along one path or another even in consideration of the direction of the references present within the semantic units," at 318.

  - *See, e.g.,* "The model supports navigability through the document collection. Due to the fact that specific cross-references are often present between the documents of the collection, the system must explicitly be able to support navigability through these connections," at 318.

  - *See, e.g.,* "Each of the two levels of the system's architecture represents a distinct network of nodes and links," at 319.

  - *See, e.g.,* "The model supports navigation between the two levels by means of the navigability function. In this way it is at all times possible to pass from the hyperdocument to the hyperconcept and back again," at 320.

  - *See, e.g.,* "By clicking the mouse button the object pointed is activated, i.e. the system receives the order to move in the direction indicated and to present the pertaining information or to execute the requisite function," at 322.

  - *See, e.g.,* "It is possible to shift directly from any point in the hypertext network to other hyperdocuments by making use of the links existing between them," at 322.

  - *See, e.g.,* "The nodes included within the single documents contains a function which allows all the links which bind that single document to the others to be displayed," at

303

Prior Art Analysis

323.

- **Arnold-Moore 1994:**

  Arnold-Moore 1994 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Arnold-Moore 1994 discloses both static links and dynamic links which can be inserted into the stored text-based data. These links are defined, at least in part, by attributes such as time. For example:

  - *See, e.g.,* "In this context hypertext would allow the note to be visible to the user only after they have selected (usually by pointing and clicking a mouse) a 'button' which is displayed with the text on the screen. Each separate unit of text which is presented on the screen is termed a *node*. The interrelated nodes and the links between them together form *hypertext,*" at 3.

  - *See, e.g.,* "Hypertext allows the user to do exactly that. It's applicability to the legal domain and particularly statutes is widely recognized," at 4.

  - *See, e.g.,* "The functionality of a hypertext database should also be supported. These include tracing links and queries based on the existence of links," at 5.

  - *See generally, e.g.,* 6.

  - *See generally, e.g.,* 12.

  - *See, e.g.,* "Within a versioned hypertext, two kinds of links are possible: 1. static links – which refer to a specific version or part of a version; 2. dynamic links – which refer to the latest version or part or, more generally, to the version at a corresponding time," at 14

  - *See, e.g.,* "Whether links should be in-line (appearing explicitly in the text) or stored in a separate link table seems dependent on the intended application," at 14.

- **Arnold-Moore 1994-2:**

  Arnold-Moore 1994-2 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Arnold-Moore 1994-2 discloses links between stored text-based documents, which are defined, at least in part, by attributes such as an absolute identifier. For example:

  - *See, e.g.,* "This information is explored by browsing, rather than querying, however we may view the traversal of a link as another kind of query," at THOM00196608.

  - *See, e.g.,* "Finally, we will certainly wish to follow any hypertext links that are

Prior Art Analysis
provided," at THOM00196608.

- *See, e.g.,* "When versioning hypertext, links can either be static or dynamic. In order to support static links to element we require an absolute identifier for each ELF. The EID is also useful for supporting dynamic inclusion of sub-elements," at THOM00196611.

- **Arnold-Moore 1997-2:**

  Arnold-Moore 1997-2 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Arnold-Moore 1997-2 discloses use of SGML to create links between stored pieces of legislation. The disclosed links are defined, at least in part, by attributes such as section number. For example:

  - *See, e.g.,* "Themis uses SGML to store legislation," at 175.

  - *See, e.g.,* "Legislation has been described as providing a cross-reference network," at 179.

  - *See, e.g.,* "Hypertext allows the user to do exactly that. It's applicability to the legal domain and particularly statutes is widely recognized," at 179.

  - *See, e.g.,* "This text needs to be associated with the intended target element. For example the reference to 'section 135' (See Figure 3) will need to be associated with the element which has a section number of '135' (See Figure 5) in the target document," at 181.

  - *See, e.g.,* "Thus all links in Themis are dynamic rather than static," at 181.

- **Bachman 1973:**

  Bachman 1973 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Bachman 1973 discloses links that permit movement to the next or previous stored document, or from an attribute to a document described by that attribute. For example:

  - *See, e.g.,* "He can start at the beginning of the database, or at any known record, and sequentially access the 'next' record in the database until he reaches a record of interest or reaches the end," at 656.

  - *See, e.g.,* "He can enter the database with a database key that provides direct access to the physical location of a record," at 656. |

305

TC1545

Prior Art Analysis
• **Campbell 1988:** Campbell 1988 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Campbell 1988 discloses links between each node, which are defined by attributes. For example: • *See, e.g.,* "Nodes are related by links. A link defines a relationship between a source node and a destination node and can be followed in either direction. A cross-context link relates two nodes in different contexts and is useful for sharing data between two contexts. The generality provided by link attributes allows application writers to define their own notions of link types or link end-point attachment schemes," at 857.   • *See, e.g.,* "Guide uses buttons – special areas on a screen – to represent links in a document between the information the screen and related information. When a button is selected, by clicking the mouse, Guide follows the link to display the related information. Replacement buttons replace the button icon displayed on the screen with the information associated with that button," at 858.   • *See, e.g.,* "The various button relationships are modeled as links," at 858.   • *See, e.g.,* "Figure 2 shows an example of a note button. The Document Browser contains the text being examined; the icon within the browser represents the note button. The Note Browser contains the note associated with the note button," at 858.   • *See, e.g.,* "Therefore, the other end of the link representing the button can point to the entire node that contains the button's information," at 858.   • *See, e.g.,* "FileBoxes can be represented in the HAM using nodes, links, and attributes. Both FileBoxes and notecards are equivalent to nodes. The model uses a node attribute to determine whether a node is a FileBox or a notecard. Links show which notecards (or FileBoxes) are in a particular FileBox. Link attributes determine which links refer to other FileBoxes and notecards," at 860. • **Horne 1997:** Horne 1997 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Horne 1997 discloses links, defined by the attribute of time, between versions of stored statutes. For example: • *See, e.g.,* "But markup could go further. It could give the dates on which the amendments were made, the dates on which they took effect, and the names of the Acts or SI which had made them, and the user's program could use this markup to display a statute as it was on a particular date chosen by the user and could offer

Prior Art Analysis
hypertext cross-references to the amending legislation," at 3. • *See, e.g.*, "HMSO have a program called 'the Statute Law Database'. This is an electronic version of Statutes in Force. It contains in SGML form the law as it was on a particular date in the 1980s together with all acts and statutory instruments which have come into force since that time. All of these are linked together," at 3. **• Kim 1996:** Kim 1996 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Kim 1996 discloses encoding links, including links defined by the attribute of a unique identifier, between stored multimedia. For example: • *See, e.g.*, "Meanwhile, hypermedia data relate multimedia data by linking them together, and permit users to browse related parts through links," at 496. • *See, e.g.*, "Besides, HOML defines virtual objects and dynamic link objects, which can decide a link destination with a query result in run time," at 497. • *See, e.g.*, "The anchor element specifies the source or the destination of a link. Since there can be many anchor elements in a text element, each anchor element should have a unique identifier," at 497. • *See, e.g.*, "The link element specifies a relation between a source object and a destination object through navigation. According to the number of destination objects, there are single links, multi-destination links and dynamic links," at 498. **• Larson 1988:** Larson 1988 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Larson 1988 discloses links between stored text-based portions of documents. For example: • *See, e.g.*, "A hypertext system is made up of a set of 'nodes' and 'links'. . . . Links are associative connections between nodes. They may represent a variety of associative connections, including citations, quotations, or similarity of content. They may also represent a hierarchic structuring of the nodes," at 195. **• Lo 1995:** Lo 1995 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Lo 1995 discloses encoding the stored documents with links defined by

TC1547

Prior Art Analysis

SGML tags. For example:

- *See, e.g.,* "Links and versioning are two important aspects of document management," at 339.

- *See, e.g.,* "This paper thus attempts to describe a specific set of link versioning behaviors to provide a platform to explore the various issues of link versioning," at 339.

- *See, e.g.,* "Links represent inherent associations of content and structure of texts. Efficient management of links allows convenient cross referencing in information browsing," at 339.

- *See, e.g.,* "Link sources and destinations can be defined by SGML tags," at 339.

- *See, e.g.,* "intra-version link: both the source and the destination of the link are located in the same version, eg the ink ab; intra-version link: both the source and the destination of the link are located in the same document, but different versions, eg the link ef; inter-document link: both the source and the destination of the link are located in different documents, eg the link ed," at 340.

- *See, e.g.,* "An intra-version link is static in nature," at 340.

- *See, e.g.,* "In contrast to intra-version links, inter-document links are dynamic in nature, tending towards switching or augmenting destination references whenever new versions are created in which their destinations are duplicated," at 341.

- *See, e.g.,* "The first method is the traditional method (also employed by SGML) of referencing locations with unique identification. The second method attempts to manage links as objects, each with an identification itself," at 342.

- *See, e.g.,* "Conceptually this method specifies unique identifiers (Ids) for referent elements (destinations); and directional links can be established by making references (Ref) from the reference elements (sources) to the referent elements' identifiers," at 342.

- **Lo 1996:**

  Lo 1996 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Lo 1996 discloses links and markups language, with the text including links encoded with markup language. For example:

  - *See, e.g.,* page 9, section 1.2.2 (Managing Functions). For example: "Link support is a facility provided by the basic service layer. Managing links is a direct support of non-linearity of documents as mentioned in Section 1.1. Link support is a

TC1548

Prior Art Analysis

prerequisite to information retrieval by browsing. It is also particularly important in depicting the dependence relationships between various documents, if such relationships need to be maintained and utilized . . . ."

- *See, e.g.,* page 11, section 1.3. For example: "Links and versioning are two important aspects of document management. Efficient management of links allows convenient cross referencing in information browsing."

- *See, e.g.,* page 12, section 1.4. For example: "In particular, SGML structures can be utilized to implement links."

- *See generally, e.g.,* section 2.1, starting on page 15, entitled "Linking."

- *See generally, e.g.,* section 2.3.2, starting on page 39, entitled "SGML Support for Linking."

- *See, e.g.,* figure 2.5, page 41.

- **Osterbye 1992:**

  Osterbye 1992 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Osterbye 1992 discloses using links between stored nodes, which are defined, at least in part, by the element of date. For example:

  - *See, e.g.,* "Links are one-to-one, and can be anchored to nodes in both ends," at 34.

  - *See, e.g.,* "A link can point to a specific element, in which case the link always points to the same element. Or the link can point to the current element, meaning the newest element in the version group," at 38.

  - *See, e.g.,* "The link is an entity that relates a source node to a destination node (or subtypes of nodes)," at 38.

- **Sacks-Davis 1994:**

  Sacks-Davis 1994 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Sacks-Davis 1994 discloses encoding links between stored documents defined by SGML attributes. For example:

  - *See, e.g.,* "SGML can be used to support advanced presentation modes such as hypertext," at THOM00198835.

  - *See, e.g.,* "Access by SGML attributes is a commonly used method for

Prior Art Analysis

supporting hypertext links," at THOM00198839.

- **Sacks-Davis 1995:**

  Sacks-Davis 1995 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Sacks-Davis 1995 discloses encoding links, defined by attributes, between stored documents using hypertext. For example:

  - *See, e.g.,* "In addition to atomic attributes and structured attributes, Atlas supports reference attributes. A reference is a tuple comprising the global key of a record or nested record. In the hypertext example, bidirectional links between documents and their associated nodes are maintained using reference attributes, so that in table Hypertext, attribute doc has values from the domain of the key of the Document table, namely, attribute doc_id," at 456.

  - *See, e.g.,* "Rather than store documents as monolithic objects in a database it is more efficient to represent documents as a set of smaller fragments, which can be connected by links. Links allow users to browse documents by following the original document structure, and to discover knowledge by browsing fragments in the other documents. This is the basic paradigm underlying hypertext systems," at 465.

- **Sciore 1991:**

  Sciore 1991 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Sciore 1991 discloses encoding stored documents with "pointers" to other stored documents. For example:

  - *See, e.g.,* "Typically, refinement is implemented by including the scheme of T1 in each T2-object, and extension is implemented by storing a pointer to a T1-ojbect in each T2-object," at 357.

- **Stonebraker 1990:**

  Stonebraker 1990 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Stonebraker 1990 discloses that every record in the POSTGRES database contains a linking means defined by the attribute of a unique identifer. For example:

  - *See e.g.,* "Because POSTGRES gives each record a unique identifier (OID), it is possible to use the identifier for one record as a data item in a second record. Using optionally definable indexes on OID's it is then possible to navigate from one record to the next by running one query per navigation step," at 126.

310

TC1550

Prior Art Analysis

- **Travis & Waldt:**

  Wilson discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Travis & Waldt discloses hypertext links, defined by attributes such as ID, to other parts of a document or to other documents. For example:

  - *See, e.g.,* "HTML provides a simple means to place hypertext links in your document. These links can point to locations in your own document, to other documents at your side, or even to documents at other sites around the world," at 56.

  - *See generally, e.g.,* 241–42 (defining ID, IDREF, IDREFS).

  - *See generally, e.g.,* 293–95 ("In modern terms these [cross-references] are called hyperlinks."; "In SGML, we usually use an empty element to indicate a link to some other part of the document. The ID and IDREF declared values for attribute definition lists are used to assure uniqueness (in the case of ID) and valid reference (in the case of IDREF) within the document.").

- **Wilkinson 1998:**

  Wilkinson 1998 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Wilkinson 1998 discloses displaying selectable links allowing the user to find related documents. Further, Wilkinson 1998 discloses displaying earlier versions of legislation. For example:

  - *See, e.g.,* "A user's ability to find documents is enhanced if there are links between a currently viewed document and related documents. This is a consequence of the *clustering hypothesis*: closely associated documents tend to be relevant to the same requests. If one document of a cluster is identified, then others can be reached by navigation," at 96.

  - *See, e.g.* "The major motivation of the project was to develop a system to produce and manage an electronic repository of legislation to track and record legislation as it changes with time, allowing access to the legislation both as it is now and also as it was at any time in the past," at 162.
  - *See, e.g.,* "Each version can be identified using the document identifier and either an integer version number or a timestamp . . . .," at 97.

  - *See, e.g.,* "As discussed later, it may well be appropriate to store links to and from other documents as attributes rather than as part of the content." at 18.

- **Wilson 1988:**

  Wilson 1988 discloses "wherein the portions of text-based data are associated with the

TC1551

Prior Art Analysis

cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Wilson 1988 discloses encoding links between stored documents using hypertext, including links defined by attributes such as date. For example:
 	
  • *See, e.g.*, "Justus automatically highlights inter-statute references and intra-statute references. When a user selects a reference, the text corresponding with that reference is displayed," at 27.
 	
  • *See, e.g.*, "Terms that are defined within the interpretation section of the statute are also highlighted through the statute; the definition can be displayed on request," at 27.
 	
  • *See, e.g.*, "By selecting the button [BEFORE 5 JULY 1973], we can see the text of Section 167(2)(a) before it was amended: figure 9," at 35.
 	
• **Wilson 1990:**
 	
Wilson 1990 discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Wilson 1990 discloses encoding links between stored documents using hypertext. For example:
 	
  • *See, e.g.*, "In directed graph systems, the text is divided into segments called nodes: in principle any node in the system should be accessible from any other node," at 123.
 	
  • *See, e.g.*, "Each node in a hypertext system has a label or name or, in Guide, a definition button. This label can be used as a link icon or, in Guide, a usage button or a glossary button, any number of times throughout the text. When a link icon or button (definition, usage or glossary) appears on the display it is highlighted in some way: in Guide, by using bold type face or by underlining. It can be selected using a pointed device such as a mouse. When this happens the hypertext system finds and displays the text associated with that icon or button," at 123.
 	
• **Wilson 1992:**
 	
Wilson discloses "wherein the portions of text-based data are associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes." Specifically, Wilson discloses both hypertext links or "buttons" that link between versions of legislative material. Wilson also discloses automatic recognition of citations within text-based data which can then be replaced with hypertext links. For example:
 	
  • *See, e.g.*, "Local buttons are an ideal mechanism for multiple versions. An electronic system makes it easier to store the name of the amending author and the date of the amendment where these are required. Figure 12 shows a section of the Industrial

Prior Art Analysis

Relations Act 1971 with local buttons for an earlier version. Figure 13 shows the button expanded," at 179-180.

- *See, e.g.*, "Explicit location references in the text to other nodes, either within the same document or in other documents, can be automatically converted to hypertext links," at 170.

- *See, e.g.*, "Another example is a cross-reference. Consider the requirement to create a link to an on-line database containing legal citations. The name of the citation must be rendered on the screen in a different color and underlined, which informs the user that the item is associated with an external link. Either of the following approaches will work...," at 306.

- **The Pre-1997 Westlaw/Westmate System:**

  The Westlaw/Westmate system uses a markup language, including links defined by attributes, and so using the system would entail performing this method. *See, e.g.*:

  - www.westlaw.com, California Statutes Annotated Database from 1996 (CA-STAN96), CA BUS & PROF § 2 (showing linking means within statutory portion)

  - AMPEX § 2

  - The Essential Guide 1996, at 136, showing a statutory section, including some of the fields within a statute, as well as a link to a related case.

- **The Pre-1997 Premise System:**

  The Premise system uses a markup language, including links defined by attributes, and so using the system would entail performing this method. *See, e.g.*:

  - Premise Software & Statutes: "Browse" the "Document List" in the CA-STAT-AN1 database within the Premise software, including Bus. & Prof. Code §§ 2 & 26, which contains links to other sections.

  - Premise Publisher: 3 ("By marking your original source documents, you can add embedded references to create links, which allow you to jump directly to other documents, images, PREMISE electronic books, applications or WESTLAW . . . ."); 11 (defining "Hypertext Link" as "A section of text that refers to a related piece of text . . . or an object. The related information is the target of the reference."); 30 (explaining "References and Target Points"); 49 (showing means for linking in PREMISE); 156–61 (describing how to add links to documents)

- **The Astoria System (pre-1997):**

  The Astoria System associated documents or portions of documents with links defined

313

Prior Art Analysis
by attributes. For example:

- *See, e.g.,* Screen shots, at THOM00211907-08.

- *See, e.g.,* Astoria 1997-1: "Astoria provides a multilingual engine that lets users search on document content, structure, attributes, and version information," at THOM00211909.

- *See, e.g.,* Astoria 1997-1: "Astoria detects and maintains revision history at the component level, not just at the document level. . . Astoria stores versioning information in an efficient format, and past versions are always available for republishing or for providing an audit trail," at THOM00211908.

- *See, e.g.,* XSoft: "REVISION TRACKING: Because of its sophisticated integration with SGML editors, Astoria maintains revision information on individual elements, and past versions are always available," at THOM00198648.

- *See, e.g.,* Astoria 1997-1: "Astoria provides a mechanism for associating arbitrary, user-definable attributes with Astoria objects. Custom Attributes provide a means for Astoria users to store relevant information directly with any object, providing a robust foundation for object status tracking, and the search and assembly of individual document components." "Astoria users specify a value for the custom attribute and then can search, retrieve, and assemble new documents based on custom attribute values," at THOM00211911.

- *See, e.g.,* Astoria 1997-1: "Astoria Link Clusters allow users to link components in hypertext fashion within and between documents. Through Link Clusters, users can identify associations—for instance, topical relationships—between related components without changing the location of the component. This allows Astoria users to organize related information so they can reference and update it more quickly," at THOM00211908.

- *See, e.g.,* XSoft: "LINKS: Users can connect elements to other elements in hypertext fashion within and between documents using links. The links let workers create non-linear paths of relationship through the database," at THOM00198648-49.

- **The EnAct System** (previously known as Themis):

  The EnAct system uses a markup language, including links defined by attributes. *See, e.g.:*

  - Arnold-Moore 1997-2, at 179 (text following the heading: "Cross References"), and in particular: "The *Themis* system uses SGML tags to identify both internal and external cross references (typically identified in the user interface by a shaded background). Each target element has an identifier (unique within that document) in the tag which can then be included in the tag of the source of the reference. . . .

TC1554

Prior Art Analysis
These tags—in combination with an SGML display which supports hypertext— allow users to navigate from the text of the reference (See Figure 3) to the fragment which contains the element to which the reference refers (See Figure 5). The identifier from the source tag is used to construct a query which retrieves the appropriate fragment from the database." • http://web.archive.org/web/19990430002036/www.thelaw.tas.gov.au/background.ht ml: "advanced searching and browsing capabilities with all cross-references and amendment history information stored as electronic hyperlinks" • **The Federal Rules of Civil Procedure System:** The Federal Rules of Civil Procedure system a method of using a system which had portions of text-based data associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes. • **The Law Desk USCS System:** The Law Desk USCS system a method of using a system which had portions of text-based data associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes. • **The New Mexico Law System:** The New Mexico Law on Legal Ethics system a method of using a system which had portions of text-based data associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes. • **The NY CLS Beta System:** The NY CLS Beta system a method of using a system which had portions of text-based data associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes. • **The OnPoint System:** The OnPoint system a method of using a system which had portions of text-based data associated with the cases or other versions by at least one link defined by one or more of a plurality of attributes.
Claim 16: In addition to the prior art listed above in conjunction with Claims 13 & 15, and Subject to the Court's claim construction, and given Defendants' understanding of Plaintiff's incomplete contentions regarding the construction and application of the claims, the following references disclose, teach or render obvious Claim 16:
wherein the at least one link comprises any piece of information additional to the text of the text-based data.

Prior Art Analysis
Each of the references discussed above with regard to claim 5 discloses "the at least one link comprises any piece of information additional to the text of the text-based data." The supporting quotations for this assertion are provided above in connection with claim 5.
Claim 17: In addition to the prior art listed above in conjunction with Claims 13, 15, 16, and Subject to the Court's claim construction, and given Defendants' understanding of Plaintiff's incomplete contentions regarding the construction and application of the claims, the following references disclose, teach or render obvious Claim 17:
wherein the at least one link comprises a code or markup that allows departure and destination points to be created between portions of the text-based data. Each of the references discussed above with regard to claim 6 discloses "the at least one link comprises a code or markup that allows departure and destination points to be created between portions of the text-based data." The supporting quotations for this assertion are provided above in connection with claim 6.
Claim 18: In addition to the prior art listed above in conjunction with Claims 13 & 15, and Subject to the Court's claim construction, and given Defendants' understanding of Plaintiff's incomplete contentions regarding the construction and application of the claims, the following references disclose, teach or render obvious Claim 18:
wherein said at least one link comprises an identification code for a corresponding portion of text-based data. Each of the references discussed above with regard to claim 7 discloses "said at least one link comprises an identification code for a corresponding portion of text-based data." The supporting quotations for this assertion are provided above in connection with claim 7.
Claim 19: In addition to the prior art listed above in conjunction with Claims 13 & 15, and Subject to the Court's claim construction, and given Defendants' understanding of Plaintiff's incomplete contentions regarding the construction and application of the claims, the following references disclose, teach or render obvious Claim 19:
wherein each of the portions of text-based data is a respective provision of said legislation or material related to a provision of said legislation. Each of the references discussed above with regard to claim 10 discloses both "each of the plurality of portions of text-based data is a respective provision of said legislation or material related to a provision of said legislation" and "each of the portions of text-based data is a respective provision of said legislation or material related to a provision of said legislation." The supporting quotations for this assertion are provided above in connection with claim 10.
Claim 20: In addition to the prior art listed above in conjunction with Claims 13, 15, 19, and Subject to the Court's claim construction, and given Defendants' understanding of Plaintiff's incomplete contentions regarding the construction and application of the claims, the

316

TC1556

Prior Art Analysis
following references disclose, teach or render obvious Claim 20:
wherein said provision is a section, schedule or appendix of an Act, or a section, schedule or appendix of a regulation. Each of the references discussed above with regard to claim 11 discloses "said provision is a section, schedule or appendix of an Act, or a section, schedule or appendix of a regulation." The supporting quotations for this assertion are provided above in connection with claim 11.
Claim 21: In addition to the prior art listed above in conjunction with Claims 13 & 15, and Subject to the Court's claim construction, and given Defendants' understanding of Plaintiff's incomplete contentions regarding the construction and application of the claims, the following references disclose, teach or render obvious Claim 21:
wherein each portion of text-based data is a block of the text-based data, the block being larger than a single word and less than the entirety of the text-based data. Each of the references discussed above with regard to claim 12 discloses both "each portion is a block of the text-based data, the block being larger than a single word and less than the entirety of the text-based data" and "each portion of text-based data, the block being larger than a single word and less than the entirety of the text-based data." The supporting quotations for this assertion are provided above in connection with claim 12.
Claim 22: In addition to the prior art listed above in conjunction with Claim 13, and Subject to the Court's claim construction, and given Defendants' understanding of Plaintiff's incomplete contentions regarding the construction and application of the claims, the following references disclose, teach or render obvious Claim 22:
wherein the markup language is Standard Generalised Markup Language (SGML) or eXtensible Markup Language (XML). Each of the references discussed above with regard to claim 3 discloses "the markup language is Standard Generalised Markup Language (SGML) or extensible Markup Language (XML)." The supporting quotations for this assertion are provided above in connection with claim 3.
Claim 23: In addition to the prior art listed above in conjunction with Claims 13 & 22, and Subject to the Court's claim construction, and given Defendants' understanding of Plaintiff's incomplete contentions regarding the construction and application of the claims, the following references disclose, teach or render obvious Claim 23:
wherein the text-based data is encoded using one or more Document Type Definitions (DTD) or Style Sheet Mechanisms (SSM). Each of the references discussed above with regard to claim 4 discloses "the text-based data is encoded using one or more Document Type Definitions (DTD) or Style Sheet Mechanisms (SSM)." The supporting quotations for this assertion are provided above in connection with claim 12.

317