

Versatile Log System**Jianqing Wu, Ph.D.**

A versatile log system is disclosed for producing logs for documents or other objects. The system allows authorized users to configure a log table and at least one coupled table, validate log entries for the log table, and validate data records for the coupled table. When the system is installed with investigative identity data search algorithm, identity data processing algorithm, interactive data entry features, and phrase construction feature, it can significantly improve production efficiency and data accuracy.

A. BACKGROUND

In litigation, a party may have an obligation to produce certain categories of documents in response to a subpoena or document request. The producing party produces documents together with a document production log and a privilege log. A production log contains among others brief description about each produced document, a privilege log contains among others a brief description of each document withhold. The party may also create a hot document log that contains a brief description of each important document. Document logs are similar to production logs used in manufacture and service industries. One example is a production log, which contains date, location, personal, equipment and notes. While logs may contain different substances and are used in different fields, they all share five common features: reviewing documents or objects, collecting data, entering data into the log, validating data, and editing log entries. When a log contains millions of entries, its production costs are often prohibitory and data accuracy is hard to control. Any improvements in any of those aspects can improve accuracy and reduce production costs.

Logs are widely used in legal fields. The producing party generally has the right to withhold the documents that are protected under various privilege doctrines. When the producing party is a large organization, the party might have millions of documents, a considerable number of which might have been toughed by in-house attorneys and outside attorneys. The task of processing a large log is labor-intensive. Moreover, it is often very difficult to determine privileged documents because it is difficult to determine whether any of senders and recipients is attorneys. Many documents may have no proper authors. It is important to build a complete list of attorney names and firm names. This is often an impossible task. There are several reasons for this. Companies do not keep track of their in-

house counsel names for this purpose while its own staff is routinely changed. Moreover, companies also hire different outside law firms at different times. They do not keep track law firms and outside attorneys. Finally, company's management team may be changed in as short as one or two years. The legal staff that knows company litigation histories may be
5 changed routinely. Thus, identification of in-house counsel and outside counsel is not always feasible.

In a typical document review, one critical task is to build a comprehensive list of attorney names to assist the reviewers in determining privileged documents. Law firms have used several methods to achieve this. They might ask all reviewers to keep a note of the
10 attorney names whenever they encounter from reviewing documents and provide this note to the management staff on a periodical basis so that the manager can add newly discovered attorney names to the growing list. The manager then distributes the updated name list to all reviewers periodically. A problem with this method is that the initial list is very incomplete and updating to the list is untimely. Thus, it increases the risk that some
15 reviewers may be unable to identify certain privileged documents as a result of incomplete and outdated attorney name list.

Many attempts have been made to improve the name list. Law firms may get a comprehensive name list by using a prior document review in another matter for the same party. If the client has never produced documents from the document pool before or has
20 never been involved in any litigation, the only possible way of building the list is to use a task-force team to hunt for attorney names and build a name list. This will increase additional costs.

Another improvement is to use the search capacity for the document review platform to mark up potentially privileged documents. Many document review platform vendors have
25 developed sophisticated technology for identifying potentially privileged documents. Documents are marked as potentially privileged if they contain search terms that consist of not only attorney names but also other words and phrases. For example, the search terms may include a list of terms such as "legal team" "legal advice", "liability", "remedy," and "settlement". The number of the potential terms can be very large. The search terms may
30 also include transaction-specific terms. If a company has done a prior criminal investigation in code names, the search terms should include those code names. The long search terms are used in conjunction of different search logics. The review platform highlights those

terms in the documents, and marks them as potentially privileged in the document log or privilege log. A common problem is that an excessively large number of non-privileged documents are marked as potentially privileged with a large number of highlighted terms in the documents, and still miss critical documents. For example, if a search term happens to appear in a certain type of documents, the system will get all those documents. The system might get all documents from Lawson because one search term is "law." When the search terms contain hundreds of words and phrases, it may get most of the documents for various unexpected reasons. Such a method can be used to help reviewers confirm privileged documents and, with less confidence, exclude non-privileged documents. Whether the reviewers can treat unmarked documents as non-privileged depend upon the scope of search terms, the search algorithm, the authors' ways of expression, and the type and nature of documents.

In a typical privilege review, one main task is to produce a privilege log, which contains basic information about the document. Privilege review is often combined with responsiveness review. Since a review system has the basic information such as authors, document title, dates, and recipients, it can readily produce most of data fields for the privilege log. The only things to be filled are privilege basis and a description of the document. The privilege basis field may be filled with the options of attorney-client privilege, work product, joint-defense privilege, and supervisory privilege. Filling the description field is the most difficult task in privilege review. If it contains too much detail, it would allow the opposing party to get some privileged information. If it contains too little information, the opposing party may be unable to determine whether the document is in fact privileged. In practice, the level of disclosure in description depends upon the nature of cases and opposing parties. For highly contested cases such as class actions, a detailed description is required to avoid court challenges. In contrast, for cases like mergers and government investigations, a brief description by using a few simple language patterns will be sufficient.

In the last two decades, little improvement has made to increase the efficiency and performance. Any improvement must not restraint the judgment of litigation attorneys. This invention is intended to provide an improved log production environment without affecting the attorney's judgment. The method and system can substantially improve data consistency and reduce the production costs.

B. SUMMARY OF THE FEATURES

The present invention is a system, which provides an environment for production of production log, privilege log, hot document log, or other logs. It provides rich tools and features for changing data entry environments, sharing and validating data, and protecting data.

5 The present invention is primarily a log production system, which can be used to host a plurality of logs. To create plural log projects, the administrator of the server uses administrator's tools to assign plural manager's accounts to plural project managers. The system has tools for deleting and modifying projects. The assigned manager can configure plural database data tables, and set up coupled data tables. A coupled table is a table that
10 contains data, which are used in the log table. The data are referred to as relevant data or coupling data. The number of records in the coupled field of the coupled table will increase so that the data will aid the reviewers in producing the log. The coupled table may be the table itself.

 The log system is implemented with an investigative identity data search algorithm
15 ("IIDS"), identity data processing algorithm ("IDP"), configurable interactive search and data feeding function, and composite phrase construction feature. The system allows privileged user to set up a names table in support of those features. The system allows for conducting name searches in a names table, identifying attorney names in the source names, and marking the identified attorney names with a unique mark such as "Esq" or a star. It also
20 provides a method for uploading attorney names in the name database, updating static useful data, and other useful information in real time. By using such a system, the user can also get names data by copy and paste method into the name processing input boxes for search and processing. The name processing algorithm allows users to process name data in the steps of (a) opening a page containing two input boxes and plural configuration
25 settings, (b) defining the configuration settings including data ranges, output order, and output format, (c) providing a list of names in the first box and a list of names in the second box, (d) submitting the page to the server for processing, and (e) displaying processed name data in two output boxes in selected output order and format without duplicates between the two output boxes.

30 The present invention is also a system and method for creating an interactive data entry form with the steps of (a) creating a database table containing a destination field, (b) setting up a data source which may be plural words and phrases ("static data source") or

one or more fields of one or more database tables and associating the destination field with the data source, and (c) in generating an interactive form page, it contains necessary script for conducting interactive search and data feed with proper parameters. The present invention further comprises methods for constructing phrases by combining user-selected data pieces in plural component boxes or by combining user-selected data pieces from a single data construction input box to form a phrase. Therefore, the user can reduce keystrokes in entering data.

The reviewers enter data such as general subject matter or specific subject matter on a document table. This data are saved in the relevant field of the production log, hot document log or privilege document log. Such data are then used to generate a description automatically by one of the construction methods according to a language pattern. By using the method, the value for the description field may be generated automatically.

The present invention is also a system and method for efficiently sharing information for creating logs between plural project members. Each of the data records in any of the tables may be validated by different validation methods, by different users, managers or different users, through different pages or routes, and under different rules. The system allows project members or project users to validate information such as names, transactions, events, and client-specific matters to ensure that critical data are accurate and current. The method comprises: (a) adding a data record into a table as a tentative record, (b) validating the record in a combined table or the tentative table of the table by the manager or members' vote, (c) changing the status of the record, (d) moving the data record from the tentative table or the combined table to the validated table, and (e) retrieving the data record by any of the project members for share.

Information stored on this system may be shared by using a simple search method, interactive data retrieving method, investigative identity data search algorithm, identity data processing algorithm, and global search method. As a result, the records created by a member can be found and shared by the rest of the members without the risk of introducing incorrect information into the system. This validation processes are essential to the maintenance of the security and integrity of critical information.

The system may be configured with one manager's account, which is used by a user to set up a project and configure data tables. The user can delete the project, change the

project, and reconfigure the project. It may be configured to host plural log projects that run independently. The data tables on the log production system and supporting tools are highly configurable and will not affect the judgment of litigation attorneys. The system can be configured for any kinds of cases. In configuring a data table, the system has server tools, which allow the user to select a data validation route, choose data validation methods, and setup data source for any data input box for any of the tables. Data may be validated on a tentative page or a combined page by manager's data validation method or members voting method. In setting up a data source for a data entry box in the data entry form or Table Edit table, the user may create a static data source or assign one or more the data fields of one or more data tables for the data entry box.

The system of the present invention contains integrated tools for resetting all project storage facilities. Project storage facilities can be reset instantly (a) resetting the project to the system's default settings; (b) deleting all project data without toughing the structures of all tables; (c) overwriting all table structures by uploading a configuration file which containing tables structures and table definitions; and (d) overwriting specified tables by uploading a configuration file. The system of the present invention contains tools for exporting project data and importing existing a project file. The project data from a project can be exported for backup. By importing a project file into the server under manager's account, the system is able to render the project precisely in the same way as the system did before the project file was created. The system allows each of the users to set up a display method for the each of the tables. Thus, the member has the option to use his personal display layout, the group's display layout, and the system default display layout. One of the display methods provides a stagger view that can eliminate the need for using scrolling bars in viewing and editing data records.

The method may be integrated with any document review platform or other information management system in various ways. When it is integrated with a document review platform, the data in the document log can be used in the privilege log. In addition, the system offers great flexibility of sharing name data and document log data with other systems. Thus, the method can be used in the information system with which the invented method and system cannot be integrated. In addition, the data entries for documents may be exported from the review platform and imported into this system. Conversely, the log

table and name table may be exported from this system and imported into other document review systems. The data from the tables on this system may also be imported into Excel.

The system of present invention is a general log production system, which offers the flexibility to link a data input box for any field of a table to any data source. The data source
5 may be a fixed number of data pieces or any one or more fields of one or more database tables. The data source for the sender field of a document log may be the first name field and the last name field of a names table. The data source may be even the destination field to which data are entered. By using this self-feedback arrangement, previously entered data can be shared in data entry. After a reviewer A resolves a name identity and enters it into
10 the names table, reviewer A can use it again later. Reviewer B can also retrieve it and use it. Any data in any table can be used by the same reviewer at two different stages, shared by different reviewers in building the same table, and shared by different reviewers in building different tables. The configuring feature further increases the value of the system.