An electronic sourcing system includes a computer that maintains a catalog database of data including product information (such as product identification and descriptive information) relating to catalog items available from vendor product catalogs, and a means for building (generating) a requisition including at least one requisitioned item. Information at least partially identifying an item desired to be requisitioned is entered by a user, and utilized by a means for searching the database for catalog items matching that information and for selecting at least one catalog item located as a result of the search. Text describing the catalog items, and images of the items, may be viewed. Data identifying selected catalog items are communicated to the requisition building means, which generates a requisition including entries for items corresponding to the selected catalog items. The system checks the availability in one or more inventory locations of the corresponding desired catalog items, and generates one or more purchase orders for desired items from inventory locations stocking the items.
OTHER PUBLICATIONS


“Black Box” system electronic catalog (no document enclosed).


FIG. 1A
FIG. 2
ELECTRONIC SOURCING SYSTEM AND METHOD

BACKGROUND OF THE INVENTION

This invention relates to systems and methods for interfacing product information, such as is typically found in vendor catalogs, to customers, and for creating new requisition/purchasing systems and methods that may use the results of searches of product information.

There are a number of known requisition/purchasing systems that manage and process requisitions and purchase orders. One such system is the Fisher Scientific Requisition and Inventory Management System ("Fisher RIMS"), described in U.S. Pat. No. 5,712,989, filed Apr. 2, 1993 and assigned to Fisher Scientific Company of Pittsburgh, Pa., the disclosure of which is incorporated herein by reference. As its title suggests, Fisher RIMS can also manage inventory. In the Fisher RIMS system, requisition records are created from a real-time interaction between a host computer (generally a mainframe) and a local computer (generally at a customer site), with each computer using data from its own respective database of inventory in conjunction with information entered by a customer service representative operating the local computer. By accessing its respective database, each computer can build and transmit to the other computer communications blocks of data relating to a particular requisition of an item in inventory (or to the management of the inventory itself). The other computer can then use the received data to continue processing of the requisition. Thus, requisition records are created from a real-time interaction between the host and local computers, with each computer using data from its respective database in conjunction with information entered by a customer service representative operating the local computer.

Other requisition/purchasing systems can be grouped broadly into four classes. First, requisition management systems licensed to corporations purchasing for their own use include ORION software (from Medical Management Systems), ENTERPRISE software (from ESI), and NOVA software (from Johnson & Johnson). Second, there exist systems provided by distributors for transmitting orders to them in proprietary formats. Such systems include QUICK-LINK (from Abbott), ASAP system (from Baxter) and LIGHTNING system (from Fisher Scientific). Third, software packages licensed by software developers to customers and/or suppliers enable the transmission of customer purchase orders as EDI purchase orders (in ANSI X.12 format). Examples of such systems include ON-CALL EDI (from TSI International), EDI Express software (from General Electric Information Services) and GETRAN software (from Sterling Software). Fourth, comprehensive business management packages such as REAL WORLD software (from Real World Corporation of Concord, NH) and ASK software (from The ASK Group) contain a purchasing module to create replenishment orders when inventoried items fall below restocking points. The same purchasing module can also be used to place spot orders for products keyed in by the customer’s purchasing personnel.

None of these known requisition/purchasing systems (including Fisher RIMS), however, provides a capability for a user readily to search for and locate information about the products that may be requisitioned and ordered in connection with the requisition/purchasing system. They also do not provide the capability for a user to search a database containing two or more vendor catalogs, and then to transfer information about the items selected as a result of such searches into a requisition/purchasing system such as Fisher RIMS for building a requisition for the catalog items.

Computer systems that are capable of searching databases containing a product catalog of a particular vendor, for example on CD-ROM, are also known. Such systems can search for user requested information about products and create orders which the user can save, print or, in some cases, facsimile directly to a vendor. The known computer systems for searching vendor catalogs are limited in that only one such vendor catalog is accessible to a user at any given time. They are also limited in that they can only create an order within the particular vendor catalog database. They cannot source items to be requisitioned from a database containing multiple catalogs or interact with a requisition/purchasing system (such as Fisher RIMS) to create a purchase order or orders including the items located from that sourcing operation.

Thus, it would be desirable to provide an electronic sourcing system that provides a means for transferring information between a requisition/purchasing system that may use the results of a search of product information and a means for searching large volumes of product information such as would be included in a vendor product catalog or catalogs.

It would also be desirable to provide such an electronic sourcing system that is capable of searching a database containing at least two vendor product catalogs for product information.

It would further be desirable to provide such an electronic sourcing system that is capable of searching a database of catalog items containing in at least two vendor product catalogs, selecting particular items located, and transferring information about the items selected (for example, a catalog number and a vendor identifier, such as vendor name and/or vendor number) to a requisition/purchasing system for inclusion in a requisition generated by the system.

It would further be desirable to provide an electronic sourcing system that is capable of creating an order list including items located as the result of a catalog database search and transferring that order list of desired catalog items to a requisition/purchasing system for inclusion of the catalog items as entries in a requisition generated by the system.

SUMMARY OF THE INVENTION

In view of the foregoing, it is an object of this invention to provide an electronic sourcing method and system that provides a user with the capability of searching a database containing data (including product/vendor identification, and other product information) relating to items available from at least two vendor product catalogs, and the capability of transferring the product information for desired catalog items obtained as a result of the search to a requisition/purchasing system for use in generating a requisition including entries for the desired catalog items.

It is also an object of this invention to provide an electronic sourcing system that provides a means for bi-directionally transferring information between a requisition/purchasing system that may use the results of a search of such product information, and a means for searching large volumes of product information such as would be included in a vendor product catalog.

It is a further object of this invention to provide an electronic sourcing system capable of creating an order list including desired catalog items located as the result of such a database search, and transferring that order list to a
Electronic sourcing system 5 also includes a requisition/purchasing system 40, preferably but not necessarily the Fisher RIMS system, and a search program 50 that is capable of searching through large volumes of information quickly and accurately. Preferably but not necessarily, the Technical Viewer 2 search program ("TV/2"), available from IBM, is used as search program 50. As shown in the embodiment of FIG. 1A, Fisher RIMS 40 and TV/2 search program 50 are run by local computer 20.

Fisher RIMS system 40 is comprised of numerous program modules, including several programs 44, which operate within CICS environment 34 of OS/2 operating system 32. Programs 44 include, among others, Requisition Management ("REQM") program 44A, Inventory Sourcing program or programs 44B, Requisition Maintenance program 44C, Customer Variable program 44D, and Order Header program 44E, each of which will later be described in greater detail. REQI program 44A is most often the RIMS program 44 that interfaces with TV/2 search program 50.

Fisher RIMS system 40 also includes several Fisher RIMS databases 42. These databases 42 preferably include requisition databases 42A, inventory databases 42B, and customer-specific databases 42C, each maintained within OS/2 operating system 32.

Local computer 20 also preferably runs Shell program 52, which operates under search program 50 and is used to customize search program 50 to generate Order Lists 48 (shown in FIG. 1C) with particular fields of formatted data about the items selected using search program 50. Local computer 20 is preferably capable of running both a RIMS program 44 and Shell program 52 at the same time (i.e., in a multi-tasking environment), but the user of local computer 20 usually sees only RIMS program 44 or Shell program 52 at one time in the foreground on monitor 22.

Local computer 20 is also provided with a catalog database 36 comprised preferably of at least two vendor product catalogs. The catalogs, and hence catalog database 36, preferably include such information as part number, price, catalog number, vendor name or I.D., and vendor catalog number, as well as textual information and images of or relating to the catalog products. The nature of the business that the Customer using electronic sourcing system 5 conducts will determine which product catalogs are made a part of catalog database 36.

A feature of the present invention is the ability to search multiple catalogs from different suppliers. For example, catalog database 36 can contain the catalog or catalogs published by a vendor Distributor, having Distributor's catalog numbers for all listed products and vendor manufacturer's part numbers for many of the listed products. Catalog database 36 can further contain catalogs published by some of the vendor manufacturers, listing the manufacturers' part numbers for certain products correspondingly listed in the Distributor's catalogs and for certain products not listed in the Distributor's catalogs. Catalog database 36 can further contain catalogs published by outside suppliers, whether other manufacturers or other distributors, listing such vendor's products different from those in the Distributor's catalogs.

Where the Fisher RIMS system is in use with electronic sourcing system 5, a host computer 10 located at a Distributor site is also provided, as shown in FIG. 1A. Host computer 10 controls all inventory, pricing and requisitioning operations of the Distributor's regularly stocked items using host pricing and inventory databases 11. Host pricing and inventory databases 11 may include such information as: descrip-
tions of the items and the quantities thereof available at a particular Distributor warehouse and at other Distributor warehouses; item records for each Product regularly sold by particular Distributor warehouse and at other Distributor programs and conducting the required communications. Preferably, host computer 10 is a mainframe computer, such as an IBM Model 3080, running the MVS operating system, the MVS-CICS application and a Virtual Telecommunication Access Method communications network.

As shown in FIGS. 1C and 2, interface 60 is also a part of electronic sourcing interface system 5. Interface 60 communicates shared data between requisition/purchasing system 40 and search program 50. Interface 60 is preferably based upon the dynamic data exchange ("DDE") protocol provided by OS/2 operating system 32. As shown in FIG. 2, interface 60 preferably includes three linking programs to interface requisition/purchasing system 40 and search program 50: ESRC program 70, ESCP program 80 and DDE LINK 90. A typical data exchange may begin with requisition/purchasing system 40 (which, in the illustrated embodiment, is the Fisher RIMS system) requesting information from catalog database 36 via search program 50. Once a search by search program 50 has been completed, the selected information will be communicated to requisition/purchasing system 40 via interface 60.

Alternatively, if the search of catalog database 36 is initiated from search program 50, the information selected from the search is returned to requisition/procurement system 40 via interface 60. The start up of electronic sourcing system 5 (FIG. 1A) may be user-initiated or automatically started when the operating system, preferably OS/2 system 32, is brought up on local computer 20. An application-name string 61 must be identified to label interface 60. As shown in FIG. 1C, electronic sourcing system 5 by convention will use "TV2V123," "TV2V124," "TV2V125," etc. as application names 61 supporting the user's requesting service.

Preferably, application names 61 correspond to virtual terminal sessions that exist in the CICS system 34 of requisition/purchasing system 40. There will be a one-to-one correspondence between applications started (such as Shell 52) and CICS virtual terminals in use at a location of requisition/procurement system 40 (such as REQI program 44A). Local computer 20 will query OS/2 operating system 32 to determine the next application-name string 61 to create at start-up. The application-name strings 61 will be created in sequence with V123 being created first, V124 created second, etc. Each application will create only one application-name-string 61 to support its user in the CICS environment 34.

If the Fisher RIMS system has been selected as requisition/purchasing system 40, and the TV/2 search program has been selected as search program 50, CICS OS/2 applications 34 must share a workstation with a TV/2 search program 50.

The data passed by interface 60 preferably comprise all or a subset of the following twelve fields: vendor name, vendor number, vendor part (catalog) number, product description, bid price, list price, keyword, page number, quantity, unit, catalog text, and catalog images. Because of the amount of data for catalog images present in database 36 and viewed on monitor 22, these data are usually not passed via interface 60. Any of the above-listed fields may be filled by requisition/purchasing system 40 prior to requesting a search of catalog database 36 by search program 50. However, requisition/purchasing system 40 is not required to pass any data to search program 50. If a field is not passed, that field will be filled with spaces. The fields that are filled with data will assist search program 50 in executing its first search against a specific catalog contained in catalog database 36.

A search priority exists when more than one field is provided by requisition/purchasing system 40. The priority is as follows: (1) part (catalog) number; (2) keyword; and (3) page number. The search will start with priority (1) and proceed through priority (3) in sequence until a search produces products matching the search criteria. At that time, the search will return the matching product information to requisition/purchasing system 40 and stop at the highest priority resulting in a match.

The operation of electronic sourcing system 5 of the present invention will now be more particularly described in the context of FIGS. 1A, 1C, 2 and 3. In FIGS. 2 and 3, the rectangles represent data screens as well as programs associated with those data screens. The rounded rectangles represent programs not associated with data screens such that, while these programs are running, the prior data screen may remain visible without, necessarily, being operational for the input of data. The programs associated with the data screens enable the user of local computer 20 to display and modify the contents of various tables associated with particular data screens. The following description illustrates the use of the Fisher RIMS system as requisition/purchasing system 40, and the TV/2 search program as search program 50. However, it will be understood that the present invention is not limited to such system or program.

Preferably, a user will start the electronic sourcing system 5 from Fisher RIMS system 40. Requisitioning on Fisher RIMS system 40 in context of the electronic sourcing system 5 of the present invention is illustrated in pertinent part in FIG. 3 (and is fully described in U.S. Pat. No. 5,712,989. As data (e.g., Account Number, Requisition Number and Stock Numbers) associated with a single requisition are entered through the various data screens on local computer 20, that computer creates a set of Requisition Tables (including a Requisition Item Table 46, shown in FIG. 1C) for that particular requisition. The Requisition Tables are stored in Requisition databases 42A (shown in FIG. 1A), and can be accessed by local computer 20 using the Requisition Number to find the desired table.

The first step in creating a requisition in Fisher RIMS system 40 involves entry by the user of information in the Order Header program 44D (shown in FIG. 1A), which has an associated Order Header data screen 100 (FIG. 3). A sample of an actual Order Header data screen 100 is set forth in Appendix I. The user enters an Account Number, which generally causes the correct name and address associated with that Account Number to be entered into the appropriate fields of Order Header data screen 100. The user must also enter a Requisition Number in the appropriate field of the Order Header screen 100. Various additional information may also be entered.

At the bottom of Order Header data screen 100 are several fields that describe the function of various function keys.
Function keys F6, F9, and F10 all cause the system to jump to a new RIMS program 44 or data screen in Fisher RIMS system 40. For example, pressing the F9 key causes the system to jump to RIMS Customer Variable program 44E (FIG. 1A) and its associated Customer Variable Header data screen 104 (FIG. 3). Customer Variable Header program 44E with its associated Customer Variable Header data screen 104 allows the user to enter and edit information that the particular customer desires to be associated with the requisition due to requirements of the customer's internal accounting system or other systems. Pressing the F10 key will cause the system to enter the Inventory Sourcing program or programs 44B.

Pressing the F6 function key from the Order Header data screen causes Fisher RIMS system 40 to jump to REQI program 44A (FIG. 1A). The screen associated with REQI program 44A is Requisition Management data screen 110 (FIG. 3) illustrated in Appendix II. Within REQI program 44A and its associated Requisition Management data screen 110, Requisition Item Table 46 (shown in FIG. IC) is a graphical representation of a database table in which certain fields are completed on a list of items that are to be listed, sourced and ordered. Representative Requisition Management data screens 110 showing a Requisition on Requisition Item Table 46 are set forth in Appendices II, VIII and IX. It should be appreciated that data about each item is stored in Requisition Item Table 46, some of which is displayed on the screens shown in Appendices II, VIII and IX. The data stored can additionally include customer variable data. That is, the fields on Requisition Item Table 46 can be expanded to include specific item details used by a particular customer, especially when reports from requisition databases are transferred to the customer's host computer (not shown). The field structure for these data is maintained in customer-specific databases 42C.

The entire process of listing, sourcing and ordering products using Fisher RIMS system 40 can be completed without any reference to a search program 50. As described herein, however, limited fields on specific items can be transmitted from Requisition Item Table 46 to search program 50, and more completed fields of the same or different items can be received from the search program 50 into a Requisition Item Table 46.

At the bottom of Requisition Management data screen 110 (FIG. 3, and Appendices II, VIII and IX) are several fields which describe the function of various function keys (F1, F2, etc.). The user uses REQI program 44A and its associated Requisition Management data screen 110 to enter the catalog or part numbers and quantities of the various items being requisitioned.

The Account Number and Requisition Number are automatically passed to REQI program 44A and its associated Requisition Management data screen 110, and displayed at the top of the Requisition Management data screen 110 in the relevant fields. For example, in the exemplary Requisition Management data screen 110 shown in Appendix II, the number 218848 has been entered in the Account Number field, and the notation “TEST NEW ONE” has been entered in the Requisition Number field.

The user can next enter desired items and quantities for the requisition. Each desired item may be identified by entering its distributor catalog or part number, if known, in the field below the STOCK NBR label on the appropriate line in Requisition Item Table 46 shown on Requisition management data screen 110. In the sample Requisition Management data screen 110 shown in Appendix II, the part number 13246818F has been entered in the STOCK NBR field of Line 001. Once the user has entered such information at least partially describing a desired item on Requisition Management data screen 110, he or she may wish to initiate a search of catalog database 36 to find all the part numbers contained in catalog database 36 that match the part number entered or other information on Requisition Management screen 110. If so, the user enters the letter “S” (for “Select”) on the line number of the item that he or she wishes to search in catalog database 36. The letter “S” has been entered to the left of line 001 on the sample Requisition Management data screen 110 shown in Appendix II. Any number of items, or no items, listed on Requisition Management data screen 110 may be marked with “S.”

A user may not always have information relating to the catalog or part number for the particular items that are to be requisitioned using Fisher RIMS system 40. Or, the user may have relevant information about an item from a particular vendor but may wish to locate information about the same or a similar product available from other vendors. Pressing the F1 function key, which is labelled “Catalog,” from Requisition Management screen 110 accesses electronic sourcing system 5.

Referring now to FIG. 2, after the user presses the F11 key on Requisition Management data screen 110 of Fisher RIMS system 40, Fisher RIMS system 40 will pass program control via XCTL 74 to ESRC program 70. XCTL 74 is a protocol within CICS application 34 that directs the execution of a program, as would readily be understood by one of ordinary skill in the art. As control is passed from REQI program 44A to ESRC program 70, ESRC-Comm-AREA data structure 76 is passed. ESRC-Comm-AREA is a layout of storage area in local computer 20 created by REQI program 44A to pass data to ESRC program 70, as would readily be understood by one of ordinary skill in the art.

ESRC program 70 will then LINK 82 to ESCP program 80 with ESCP-Comm-AREA 84. LINK 82 is a protocol within CICS application 34 that directs the execution of a program, as would readily be understood by one of ordinary skill in the art. Data at least partially describing one item desired to be requisitioned is passed to ESCP program 80 via LINK 82. Thus, if there are five items to be passed to ESCP program 80, there will be five LINKS 82 made. If no items are to be passed to ESCP program 80, only one LINK 82 is made to ESCP program 80. ESCP program 80 can return up to twenty items per LINK 82, in other words, for each item desired to be requisitioned up to twenty desired catalog items contained in catalog database 36 may be sent to REQI program 44A and its associated Requisition Management data screen 110 of Fisher RIMS system 40. If a user chooses to terminate the sourcing process, ESRC program 70 would
program would then concatenate those two catalogs to perform a keyword, catalog number or other subject search and generate a Hit List of pages (panels) from both catalogs where the searched-for items were found. Similarly, the user might select the Fisher and NIST catalogs when searching for quality control standards or might select the Fisher and Fairmont catalogs when searching for supplies.

If the search is initiated from requisition/purchasing program 40, for example from the Requisition Management data screen 110 of the Fisher RIMS system, then the catalogs searched can be determined by the information provided. If, for example, Promega is indicated as the desired requisition item vendor, interface 60 would direct TV/2 search program 50 to search the Fisher and Promega catalogs. If Fairmont is indicated as vendor, the interface would direct TV/2 to search the Fairmont and Fisher catalogs. If no catalog delimiting information is entered for the item desired to be requisitioned, interface 60 would be set up to search only the Fisher catalog or, alternatively, to search all catalogs in catalog database 36.

Once Hit List 47 has been created by TV/2 search program 50, the user can view it and select particular ones of the located catalog items for Order List 48. For example, the user might select the Fisher Biological Research Products Catalog (identified by the Fisher catalog numbers R6011, R6012, R6013, R6015 and R401) and five entries in the Fisher catalog (identified by Fisher catalog numbers PRR6011, PRR6012, PRR6013, PRR6015 and PRR401). If the user selected PRR6012 from the Fisher catalog, Fisher catalog number PRR6012 would be added as an entry to the Items Selected screen, with VN00000001 (identifying the vendor as distributor Fisher) accompanying it in the Order List 48. If the user instead selected the item identified by catalog number R6012 from the Promega catalog, then Promega catalog number R6012 would be added as an entry to the Items Selected screen, with VN00000001 (identifying the vendor as distributor Promega) accompanying it in the Order List. In either case, the information transmitted to REQI program 44A of Fisher RIMS system 40 would also include description, list price and other information taken from the catalog database from which the selection was made. When the resultant requisition is sourced, however (as described below), Distributor's mainframe host computer 10 would recognize the entry for the item from vendor Promega’s catalog (R6012, 00000001) as corresponding to that same item available from Fisher's catalog (PRR6012, 00000001). The system thus would transmit back the Customer’s contract price and availability for corresponding item PRR6012 as a type 03 (regular Distributor) product available from one of distributor's inventory locations. A purchase order then would be generated for this corresponding Distributor item as further described below.

By contrast, an item selected from the Fairmont catalog would be transferred to Fisher RIMS system 40 with the vendor number for Fairmont, and would be recognized during inventory sourcing as either a type 07 product (that Distributor orders from Fairmont) or as a type 05 item (that Customer orders from Fairmont as an Administrative Purchase). In either of these two cases, a purchase order would be generated for an item, corresponding to a desired catalog item, that is identified by the same Fairmont catalog number that was requisitioned.

After the desired item has been selected from the Hit List 47 by double clicking on that item TV/2 search program 50 can be used to bring up for viewing on monitor 22, or...
If more than one item on Requisition Management data screen 110 had been marked with an “S,” the process described above is repeated.

If the user desires to do additional searching in catalog database 36 that is not connected to catalog or other items that have been listed on Requisition Management data screen 110 of Fisher RIMS system 40, he or she can click the box on footer bar of Shell 52 that is labelled “Search.” Then, a Search screen comes up on monitor 22 of local computer 20. An exemplary Search screen is shown in Appendix VII. In this screen, the usual footer bar is visible in the background, but is not active.

Using the Search screen, a user can search catalog database 36 by page, text description, part number (where the user has the further option to search by Fisher part number, for example if Fisher is to be the desired vendor), Vendor part number, vendor name (for vendors other than Fisher), or bulletin. Stock numbers specific to the customer can also be present in catalog database 36 and searched using the screen of Appendix VII. “Bulletin” refers to an additional vendor publication with detailed product information that may not be included in a vendor catalog. Searching for information contained in bulletins may be done by bulletin number, but only if bulletins have been made a part of catalog database 36. For purposes of this disclosure, bulletins when included in a catalog database are considered a type of catalog.

After the user has entered the field to be searched on the Search Screen, the user clicks on the “SEARCH” box near the bottom of the Search Screen. A Hit List 47 indicating all items from catalog database 36 that match the search field that was entered on the Search Screen then is generated. Then, in a manner similar to that described previously, the user can scroll through the Hit List 47 and double click on the catalog page or panel desired. The user may then also view the detailed information located on the catalog page that was selected from the Hit List 47. During the search, the user may also add additional items to the Order List 48 being built in Shell 52 if desired, whether those additional items had been selected from the Hit List 47 or not.

The Order List that the user has built in Shell 52 is maintained on the Items Selected screen, shown in Appendix VI. From the Items Selected screen, the user can cancel the order by clicking on the “Cancel” box at the bottom of the screen, delete an item from the Order List 48 by moving the pointer bar to the item to be deleted and then clicking on the “Delete” box, or delete all items by clicking on the “Delete All” box. The user can also view catalog text and images for a particular item by clicking on the “Description” box.

Once the user has completely built the Order List 48 within Shell 52 and TV/2 search program 50, he or she can transmit it to Fisher RIMS system 40. This is accomplished by clicking on the “Order” box at the bottom of the Items Selected screen to communicate the completed Order List 48 to Fisher RIMS system 40.

The user may have selected no items, one item or several items from the catalogs contained in catalog database 36 by using TV/2 search program 50. If no items have been selected, the original items that were entered on Requisition Item Table 46 of Requisition Management data screen 110 will remain on that screen and will continue to be processed by Fisher RIMS system 40. If one or several desired catalog items were selected in TV/2 search program 50, the first item selected will replace the original item on Requisition Item Table 46 of Requisition Management data screen 110. Additional items that were unselected in the search that was performed in TV/2 search program 50 will be added to Requisition Item Table 46 of Requisition Management data screen 110.
Interface programs ESCP 80 and ESRC 70 (FIG. 2) are used to send data to REQI program 44A (FIG. 1A) and its associated Requisition Management data screen 110 (FIG. 2) about the items that were selected from the search performed by TV/2 search program 50. To the user, it appears that all the items selected from the search are sent over to Fisher RIMS system 40 at the same time. However, ESCP program 80 receives multiple items from TV/2 search program 50, and then sends one item at a time to ESRC program 70. ESRC program 70 then waits until all items have been passed to it before sending data about the items to REQI program 44A and its associated Requisition Management screen 110 of Fisher RIMS system 40. The information transmitted to Requisition Management screen 110 from the Order List built in TV/2 search program 50 and sent through ESCP program 80 and ESRC program 70 includes vendor name, vendor number, vendor part (catalog) number, product description, list price, page number, quantity, unit and catalog text. However, not all of the above-listed fields may be displayed on screen at all times. ESRC program 70 passes control back to Fisher RIMS system 40 via XCTL 78. The requisition number, customer identification and release number are passed to the screen at the same time. However, the data is associated with the proper requisition. MENU-Comm-AREA 56 is a layout of storage area within local computer 20, as one of ordinary skill in the art would readily understand.

As previously indicated, multiple LINKS 82 may have been created between program ESCR 70 and program ESCP 80 if multiple lines were selected with the "S" symbol in Requisition Management data screen 110. After completing the line search, and any additional searches initiated with the footer bar, an order list is created and returned to Requisition Item Data Table 46 associated with Requisition Management data screen 110. At this point, the next item is sent from a LINK 82 through program ESCP 80 and DDE LINK 90 to the TV/2 program 50, and a hit list resulting from the corresponding search is displayed on monitor 22. The process of searching, displaying, selecting and ordering is repeated until all of items stored by LINKS 82 have been sent to TV/2 program 50 and searched. At the end of each of these searches, an order list may be created and returned to Requisition Item Table 46 as shown in Appendix VIII (and in Appendix IX). However, the data is associated with the proper requisition.

After completing each search, and any additional searches initiated with the footer bar, an order list is created and returned to Requisition Item Data Table 46 associated with Requisition Management data screen 110. At this point, the next item is sent from a LINK 82 through program ESCP 80 and DDE LINK 90 to the TV/2 program 50, and a hit list resulting from the corresponding search is displayed on monitor 22. The process of searching, displaying, selecting and ordering is repeated until all of items stored by LINKS 82 have been sent to TV/2 program 50 and searched. At the end of each of these searches, an order list may be created and returned to Requisition Item Table 46 as shown in Appendix VIII (and in Appendix IX). However, the data is associated with the proper requisition.
item. Type 01 and type 03 items are priced by Distributor’s host computer 10 searching host databases 11, which contain various formulae and tables of Distributor’s pricing agreement with the Customer. Host computer 10 also prices any type 04 or type 07 item, if present. These prices were transmitted to local computer 20 along with the location and availability information for the type 01 items. Prices for type 05 and 06 items are maintained in the local computer’s 20 own databases 420 and 42C.

From Requisition Maintenance data screen 120, the CSR can accept all lines of the requisition—if all lines show the status “S” for sourced in the “STAX” field of Requisition Maintenance data screen 120—by pressing the F6 function key. If item errors are found at step 116 in the data transmission back to local computer 20 from host computer 10 during the sourcing process, then those particular items for which error was found will be returned and displayed by local computer 20 in Requisition Management data screen 110.

Once a requisition has been inventory sourced and accepted by the CSR, it can be converted to one or more purchase orders, as represented by step 114 in FIG. 3. For example, the requisition represented by the Requisition Item Table 46 of Appendix IX, if accepted without further revision by pressing function key F6 (“ACCEPT”), would result in the generation of the following three purchase orders:

A. Line 002 would be ordered from on-site distributor-owned inventory;

B. Line 004 would be ordered from on-site customer-owned inventory (a transfer internal to the customer); and

C. Lines 001 and 003 would be ordered, respectively, from Distributor’s “DEL” and “EDC” warehouses.

Of these three purchase orders, Orders A (type “01”) and C (type “03”) are shared between host computer 10 and local computer 20 (as shown in FIG. 3). Upon execution of Order A, the inventory records on both computers for Distributor-owned JIT inventory are adjusted synchronously. A purchase order is generated by host computer 10 immediately thereafter. Order B (type “06”) is executed and stored only on local computer 20. Upon execution of Order B, the inventory record on local computer 20 is adjusted (the host computer contains no records on Customer-owned JIT inventory or on items ordered by Administrative Purchases). For Administrative Purchases (type 05 items), a purchase order is printed, and mailed or faxed, locally by computer 20 as indicated at step 118 in FIG. 3, or via host computer 20 via EDI (if EDI was selected in the Header of Appendix I and an EDI transfer arrangement existed with vendor).

It is an important feature of the present invention that a requisition may be filtered by searching and selecting from a catalog database of items, inventory sourced, and the resulting requisition then divided into one or more purchase orders. This contrasts with known prior art CD-ROM catalog systems in which only a single purchase order to a single supplier is built without reference to inventory records, and in which the information used to create the purchase order is limited to that contained in the product catalog of a single vendor.

Electronic sourcing system 5 also contains the capability to log messages returned from inventory sourcing program or programs 44B of Fisher RIMS system 40. Messages will be logged for any of the following reasons: (1) part number changes for line sent to ESCP program 80; (2) list price from inventory sourcing program 44B differs from list price returned from ESCP program 80; (4) on a “master or blanket” order, in which local computer 20 tracks the amount of purchases against a blanket or cumulative sum available and/or in which there is limited access to products or limited access to certain users, the part has already been entered on another line; and (5) the maximum number of line items has been reached.

Referring again to FIG. 2, a user is able to view the messages returned by pressing the ALT F11 function keys in ReqI program 44A and its associated Requisition Management screen 110 in Fisher RIMS system 40. After the ALT F11 keys have been pressed, ReqI program 44A will link to ESMV program 112 via XCTL link 111 for displaying the message log created. ESMV program 112 is a function of Fisher RIMS system 40. ESMV program 112 allows the user to page through the messages created and then to return to Requisition Management screen 110. A sample ESMV message screen 81 associated with ESMV program 112 is shown in Appendix X.

The first two messages of the message screen of Appendix X indicate that a part number for line 001, identified as part number 53610, was successfully added in substitution for a part prior originally entered as part number S100-06 (from the Fisher Scientific catalog). The next message indicates that the originally entered part (S100-06) did not exist in the Fisher catalog, but its corresponding part number S100-06 (that was located by another search in another catalog) did exist in that other catalog. The next message indicates that the vendor for part number 53610 was changed in line 001 from “VN00000001”—meaning that the originally requested vendor (Fisher) was changed. The next two messages indicate that two other part numbers (53620 and 53650) were successfully added as lines 002 and 003.

In the previous description, an exemplary embodiment has been described in which a Distributor CSR operates Fisher RIMS requisition/purchasing system 40 and IBM TV/2 search program 50 as part of a Just-In-Time activity for a particular customer, Customer. Electronic sourcing system 5 of the present invention may also be used, however, in other requisition and purchasing environments.

In some embodiments, a Customer end user or a Customer purchasing employee operating ReqI program 44A of Fisher RIMS system 40 may also operate TV/2 search program 50. Operating either from a terminal connected to local computer 20, or from a separate local computer networked with the CSR’s local computer 20, such a Customer end user can select requisitioned items for inclusion in Requisition Item Table 46 by keystroking viewing that screen and by searches in TV/2 search program 50 which are transmitted to the Requisition Item Table 46 via interface 60, as described above. Depending upon his or her authorization level and access code to Fisher RIMS system 40, the Customer purchasing employee may be able to source the final requisition and/or accept the sourced requisition, as shown in Appendix IX. If, however, the sourced requisition was split into more purchase orders than the Customer purchasing employee might prefer, the intervention of the Distributor CSR could be invoked to revise and re-source the requisition (causing, for example, certain items originally sourced as type 01 products to be sourced for this order as corresponding type 03 products from a common Distributor warehouse with other type 03 products on the requisition). The Customer end user may have authority only to build the Requisition Item Table, but then calls the Distributor CSR or Customer purchasing employee to source and accept the requisition.

As shown in FIG. 1B, the present invention also has application to Distributor’s regional customer service loca-
tions where a large number of CSRs may be placing orders directly on Distributor’s host computer 210 for thousands of different customers who call in. In that environment, search program 250, which preferably comprises TV-2 search program 250, and catalog databases 236 are stored on file server 200. In this environment, file server 200 is a large personal computer, a work station or a mini-computer such as an IBM AS/400. Alternatively, the server 200 and a minicomputer (such as an IBM AS/400) can be independently connected to each local computer 200. Each CSR has a local personal computer 220 having a monitor 222, a keyboard 224 and a printer 226. Local computer 220 is provided with programs including requisition/purchasing program 240, Shell program 252 and a graphic user interface 254 (preferably EASEL Workbench program 254 for OS/2) for listing items. One or more of these may be copied from server 220 when needed. Work-in-progress requisitions 260 are established for each customer and are attached to graphic user interface 254. Server 200 maintains complete requisitions 242, in a manner similar to the manner in which local computer 200 maintains requisition databases 42 in the embodiment shown in FIG. 1A.

Normally, in such an environment, the CSR creates Order lists for customers by entering Distributor catalog numbers into graphic user interface 254 and connecting to the Distributor mainframe 210 for price and availability. For this purpose, each local computer is connected to host computer 210 via a phone/dataline and either a gateway or a mini-computer acting as a local host. When a customer asks for products by manufacturer part number or a competitor’s catalog number, the CSR has access to cross-reference files, as earlier described, either maintained on the local host or maintained on the Distributor host.

Appropriate Distributor catalogs and manufacturer catalogs then are consulted, using TV-2 search program 250 and proper selection of Distributor catalogs and of catalogs and bulletins from manufacturers whose products Distributor regularly sells. Catalogs and bulletins are contained in catalog database 236. The resultant lists of products are then transferred by Shell program 252 to a work-in-progress requisition 260, and then entered from graphical user interface 254 directly onto Distributor’s mainframe computer 210 or orders from the applicable customer to Distributor. The CSR, knowing which items are available from which Distributor warehouse and direct-shipping supplier, then may divide the customer’s requested items into multiple orders, so as to assure that each order is completely filled by a single shipment. In this regional environment, file server 200 or the minicomputer acting as local host can maintain files of completed requisitions 242 which can be subsequently used for generating reports for customers in the region. Reports can be generated either from such local data or from data periodically downloaded to the local host from Distributor’s host computer 210.

Another environment where the present invention can be used is in Distributor’s purchasing department. The item lists created in that environment can include lists of items Distributor does not regularly stock or purchase, but for which particular customers indicate a requirement to buy. The file server 200 in that environment contains TV-2 search program 250, EASEL graphical user interface 254 and multiple catalog databases 236 containing catalogs similar to the Fairmont and NIST catalogs described above for the embodiment of FIG. 1A. The Distributor purchasing employee can receive by phone or via Distributor’s host computer 210 requests for items not shown on Distributor’s host databases either as regular products (type 03) or third party items purchased for particular customers on a regular basis (type 07 items). Transmitting certain such requirements to the applicable Distributor purchasing employee can be a function of the inventory sourcing routines of host computer, or may be directed by the Distributor CSR facing with the customer.

The Distributor purchasing employee can search appropriate catalogs using TV-2 search program 250, and can transfer the “Items Selected” to a product list in EASEL interface 254. The resultant list might display, for example, supplier part number, supplier, list price, product and catalog page, with access to other fields such as complete description (up to 500 characters). The Distributor purchasing employee can then either forward the information to the CSR, customer end user or customer purchasing employee who requested the item (to confirm that the requirement is being met) or contact the supplier to confirm pricing and availability. Once responses from either or both have been obtained, the Distributor purchasing employee can use the item list in EASEL interface 254 to create one or more of the following purchase orders:

1. an order from the customer to the supplier (an Administrative Purchase);
2. an order from the customer to Distributor (for a type 07 product); and
3. an order from the Distributor to the supplier (usually providing for direct shipment from the supplier to the customer or to a JIT site maintained by Distributor for the customer).

From the foregoing description, it should be apparent that the network arrangements of FIG. 1B can be used to apply the present invention in a variety of contexts. The context will dictate which catalog databases 236 are provided on file server 200 in the regional CSR environment, Distributor’s catalogs can be present with a variety of catalogs and bulletins from manufacturers that Distributor regularly represents and a limited selection of outside suppliers; and in the Distributor purchasing environment, the number of outside supplier catalogs will be increased. The number of client (local) computers 220 and the number and size of catalog databases 236 will help dictate what size file server 200 is required. The operating environment (regional CSR site, on-site CSR, on-site CSR networked with Customer end user or Distributor purchasing site) will also affect the catalog databases 236 included, file server 200 size and requisition/purchasing program 240 used. In some situations (e.g., purchasing) each client computer has an independent copy of requisition/purchasing program 240; in others (e.g., on-site CSR) a single copy of the requisition/purchasing program 240 is maintained with associated local databases on the server 200. Where the requisition/purchasing program 240 and local databases are maintained on file server 200, the local database is updated after each use for the benefit of subsequent users. For example, in an environment using Fisher RIMS for requisition/purchasing program 240, if a NIST standard is selected using TV-2 search program 250 and ordered using Fisher RIMS 240 (as either a type 07 purchase from Distributor or a type 05 administrative purchase from NIST), that item is available in the applicable database for subsequent requisitions. For example, a NIST standard ordered as a type 05 item will be stored in the local database on file server 200, with NIST as the vendor for subsequent administrative purchases by Customer. A NIST standard ordered from Distributor as a type 07 item will be stored in Distributor’s host databases as a type 07 available to Distributor from NIST. The local databases on file server 200
will also contain records of all items requisitioned and ordered, useful to transfer files to a Customer’s computer (e.g., of purchase orders placed by that Customer in a day) or to generate reports for a Customer (e.g., or requisitions placed by each Customer department and/or budget number in a week).

Thus it is seen that an electronic sourcing system including means for linking a requisition/purchasing system and a means for searching large volumes of information has been described. Persons skilled in the art will appreciate that the present invention can be practiced by other than the described embodiments, which are presented for the purposes of illustration and not of limitation, and the present invention is limited only by the claims which follow.

APPENDIX I

FISHER SCIENTIFIC RIMS
REQUISITION HEADER

DATE: 08/05/94
TIME: 07:04:57
ACCT-NBR : 002
COMPANY :
REQ NBR :
RELEASE :
CALLER :
ATTN :
BILL TO :
VENDOR :
NAME: 
ADDRESS: 
ORDER TYPE : R ORDER
HOLD/REL: I
RUSH CODE: 9
FREEIGHT OVERRIDE: N
EDIP TO HOST: N
PO TO HOST: N
POA 855
PST ACCE: Y
NBR OF COPIES: 1
ACK DELV CODE: W WALK IN
REQ DELV CODE: W Walk in
SERVICE CHARGE: 0.00
CREATED: 08-04-1994
STATUS: R

RESPONSE: KEY(S):
1BV123

APPENDIX II

** REQUISITION MANAGEMENT SCREEN ***

ACCT NBR: 218848 002 REQ NBR: TEST NEW ONE
COMP : 1 REL NBR:
S LINE STOCK NBR QTY UM PT STKRM XREF SPI UNIT PRICE EXT PRICE
001 13246818F 0 CS 03 0.00 0.00
002 DESC:
003 DESC:
004 DESC:
005 DESC:
QTY AVAIL:
LOC: WHSE:
QTY AVAIL:
LOC: WHSE:
QTY AVAIL:
LOC: WHSE:
QTY AVAIL:
LOC: WHSE:
RESPONSE: KEY(S): ALL ITEMS DISPLAYED
APPENDIX III

Fisher Isotemp 800 Series Programmable Ovens

- General
- 1106: Fisher Isotemp 800 Series Deluxe Lab Ovens
- 1107: Isotemp 700 Series Deluxe Lab Ovens
- 1108: Isotemp 600 Standard Lab Ovens
- 1109: Fisher Isotemp 500 Series Economy Lab Ovens
- 1110: Gravity Convection Ovens
- 1111: Utility Ovens
- 1112: Mechanical Convection Ovens with Electronic Temperature
- 1113: General-Purpose Ovens
- 1114: Heavy Duty Deluxe Ovens
- 1116: Large Capacity Model 2802A
- 1117: Standard Capacity Model 281A
- 1118: Fisher Models 280 and 285 Vacuum Ovens
- 1119: NAPCO Vacuum Ovens

APPENDIX IV

Fisher Isotemp 800 Series Programmable Ovens

Three linear heat-up and cool-down stages
Talking control panel
Keypad and lighted graphics
300 to 325°C range
RS-422 serial communications capability

The latest technology at your fingertips. Accurate, easy-to-use controls allow you to program up to 3 heat-up stages and 3 cool-down stages linearly to provide the most appropriate conditions for your samples. Using the large keyboard, you can choose the heat-up or cool-down rate, the temperature you want for each stage, and the length of time you want the oven to hold each temperature. And, for projects requiring repeatability, you can duplicate the settings at any time.

APPENDIX V

Fisher Isotemp 800 Series Programmable Ovens

<table>
<thead>
<tr>
<th>Model</th>
<th>Inside D x W x H</th>
<th>Sht. wt.</th>
<th>Electrical Requirements</th>
<th>Cat. No.</th>
<th>Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>818F</td>
<td>16 x 12 x 16</td>
<td>156 lb.</td>
<td>230 V 50/60 Hz 11.3 Amps</td>
<td>13-246-818F</td>
<td>3495.00</td>
</tr>
<tr>
<td>838F</td>
<td>18 x 12 x 20</td>
<td>195 lb.</td>
<td>230 V 50/60 Hz 19 Amps</td>
<td>13-246-838F</td>
<td>3995.00</td>
</tr>
</tbody>
</table>

Extra Shelves for 800 Series Ovens

No-tip design. Move to any position in seconds. Full Depth Shelves: Chrome-Plated Steel

APPENDIX VI

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>13246818F</td>
<td>ISOTEMP OVEN MDL818F 230 V</td>
<td>3495.00</td>
</tr>
</tbody>
</table>

APPENDIX VII

Help Catalogs Search Order List Minimize Clear Prev Next Exit
APPENDIX VII-continued

APPENDIX VIII

RICREQ1  FISHER SCIENTIFIC RIMS  DATE: 07-29-94
REQUISITION MANAGEMENT SCREEN TIME: 14:54:22
ACCT NBR: 363690 006  REQ NBR: PO NBR 001
COMP: 1  REL NBR:
0 LINE  STOCK NBR  QTY UM PT STKRM XREF SPI UNIT PRICE EXT PRICE
001 A181 1 EA 03 0.00 0.00
DESC:
002 02540K 1 PK 01 0.00 0.00
DESC:
003 13246818F 1 EA 03 0.00 0.00
DESC:
004 A181-06 1 EA 06 100.00 100.00
DESC: ACETONE
JIT BACKORDER WILL OCCUR
005
DESC: ACETONE
QTY AVAIL: 0 LOC: WHSE: EDC
006
DESC: ACETONE
QTY AVAIL: 0 LOC: WHSE: EDC
RESPONSE: KEY(S):
1B V123

APPENDIX IX

RICPOMP1  FISHER SCIENTIFIC RIMS  DATE: 08-03-94
REQUISITION MANAGEMENT SCREEN TIME: 07:44:13
COMP ID: 001  REQ-NBR : PO NBR 001
ORDER NBR: 363690 006  REL-NBR :
ORDER: 0.00 FREIGHT:
0 LINE  PART  QTY UOM PRD UNIT PRICE SERVICE EXT PRICE LOC-
STAT
001 A181 1 EA 03 35.30 0.00 35.30 DEL S
ACETONE CERTIFIED ACS
002 02540K 1 PK 01 32.70 0.00 32.70 JIT S
BEAKER GRIFFIN 250 ML
003 13246818F 1 EA 03 3495.00 0.00 3495.00 EDC S
PROGRAMMABLE OVEN
004 A181-06 1 EA 06 100.00 0.00 100.00 JIT S
ACETONE
QTY AVAIL: 0 LOC: WHSE: EDC
RESPONSE: KEY(S):
1B V123

APPENDIX X

*** REQUISITION MANAGEMENT SCREEN ***
ACCT NBR: 218848 002 REQ NBR: TEST NEW ONE
COMP: 001  REL NBR:
0 LINE  PART  QTY UOM PRD UNIT PRICE SERVICE EXT PRICE LOC-
STAT
001 A181 1 EA 03 35.30 0.00 35.30 DEL S
ACETONE CERTIFIED ACS
002 02540K 1 PK 01 32.70 0.00 32.70 JIT S
BEAKER GRIFFIN 250 ML
003 13246818F 1 EA 03 3495.00 0.00 3495.00 EDC S
PROGRAMMABLE OVEN
004 A181-06 1 EA 06 100.00 0.00 100.00 JIT S
ACETONE
QTY AVAIL: 0 LOC: WHSE: EDC
RESPONSE: KEY(S):
+ F3:EXIT F6:RETURN F7:BACKWARD F8:FORWARD
55

APPENDIX X-continued
We claim:
1. An electronic sourcing system comprising:
   at least two product catalogs containing data relating to
   items associated with the respective sources;
   means for selecting the product catalogs to search;
   means for searching for matching items among the
   selected product catalogs;
   means for building a requisition using data relating to
   selected matching items and their associated source(s);
means for processing the requisition to generate one or more purchase orders for the selected matching items; and means for determining whether a selected matching item is available in inventory.

2. The electronic sourcing system of claim 1 wherein the purchase orders include data relating to a catalog number for the selected matching items.

3. An electronic sourcing system comprising:
   - at least two product catalogs containing data relating to items associated with the respective sources;
   - means for selecting the product catalogs to search;
   - means for searching for matching items among the selected product catalogs;
   - means for building a requisition using data relating to selected matching items and their associated source(s);
   - means for processing the requisition to generate one or more purchase orders for the selected matching items; and
   - means for converting data relating to a selected matching item and an associated source to data relating to an item and a different source.

4. The electronic sourcing system of claim 3 further comprising means for determining whether a selected matching item is available in inventory.

5. The electronic sourcing system of claim 3 further comprising means for determining the applicable price of a selected matching item.

6. An electronic sourcing system comprising:
   - a database containing data relating to items associated with at least two sources;
   - means for searching for matching items in the database;
   - means for building a requisition using data relating to selected matching items and their associated source(s);
   - means for processing the requisition to generate one or more purchase orders for the selected matching items; and
   - means for converting data relating to a selected matching item and an associated source to data relating to an item and a different source.

7. An electronic sourcing system of claim 6 wherein the requisition includes matching items from at least two sources.

8. The electronic sourcing system of claim 6 wherein the purchase orders include data relating to catalog numbers.

9. The electronic sourcing system of claim 6 further comprising means for determining whether a selected matching item is available in inventory.

10. The electronic sourcing system of claim 6 further comprising means for determining the applicable price of a selected matching item.

11. An electronic sourcing system comprising:
   - at least two product catalogs containing data relating to items associated with the respective sources;
   - means for searching for matching items among the product catalogs;
   - means for building a requisition that includes data relating to selected matching items and their associated source(s); and
   - means for converting data relating to a selected matching item and an associated source to data relating to an item and a different source.

12. The electronic sourcing system of claim 11 wherein a first purchase order includes data relating to the first matching item.

13. The electronic sourcing system of claim 12 wherein a second purchase order includes data relating to the second matching catalog item.

14. An electronic sourcing system comprising:
   - data relating to items associated with at least two sources maintained so that selected data may be searched separately;
   - means for searching for matching items among the selected data;
   - means for building a requisition using data relating to selected matching items and their associated source(s);
   - means for processing the requisition to generate purchase orders using data relating to the selected matching items and their associated source(s); and
   - means for converting data relating to a selected matching item and an associated source to data relating to an item and a different source.

15. The electronic sourcing system of claim 14 wherein the purchase orders use data relating to at least two sources.

16. The electronic sourcing system of claim 14 wherein the purchase orders use catalog numbers.

17. The electronic sourcing system of claim 14 further comprising means for determining whether a selected matching item is available in inventory.

18. The electronic sourcing system of claim 14 further comprising means for determining the applicable price of a selected matching item.

19. An electronic sourcing system comprising:
   - a database containing data relating to items associated with at least two vendors maintained so that selected portions of the database may be searched separately;
   - means for searching for matching items in the selected portions of the database;
   - means for building a requisition that includes data relating to selected matching items;
   - means for processing the requisition to generate purchase orders for selected matching items;
   - means for converting data relating to a selected matching item and an associated source to data relating to an item and a different source.

20. The electronic sourcing system of claim 19 wherein the purchase orders include data relating to vendor catalog numbers.

21. The electronic sourcing system of claim 19 further comprising means for converting data relating to a selected matching item and an associated source to data relating to an item and a different source.

22. The electronic sourcing system of claim 19 further comprising means for determining whether a selected matching item is available in inventory.

23. The electronic sourcing system of claim 19 further comprising means for determining the applicable price of a selected matching item.

24. An electronic sourcing system of claim 19 wherein the requisition includes matching items from at least two sources.

25. The electronic sourcing system of claim 24 wherein the purchase orders include data relating to the source associated with the selected matching item.

26. A method comprising the steps of:
   - maintaining at least two product catalogs on a database containing data relating to items associated with the respective sources;
   - selecting the product catalogs to search;
   - searching for matching items among the selected product catalogs;
building a requisition using data relating to selected matching items and their associated source(s); processing the requisition to generate one or more purchase orders for the selected matching items; and determining whether a selected matching item is available in inventory.

27. The method of claim 26 wherein the purchase orders include data relating to a vendor catalog number for the selected matching items.

28. A method comprising the steps of:
   - maintaining at least two product catalogs on a database containing data relating to items associated with the respective sources;
   - selecting the product catalogs to search;
   - searching for matching items among the selected product catalogs;
   - building a requisition using data relating to selected matching items and their associated source(s); processing the requisition to generate one or more purchase orders for the selected matching items; and
   - converting data relating to a selected matching item and an associated source to data relating to an item and a different source.

29. The method of claim 28 further comprising the step of determining whether a selected matching item is available in inventory.

30. The method of claim 28 further comprising the step of determining the applicable price of a selected matching item.

31. A method comprising the steps of:
   - maintaining a database containing data relating to items associated with at least two sources;
   - searching for matching items among the data relating to the items;
   - building a requisition using data relating to selected matching items and their associated sources;
   - processing the requisition to generate purchase orders using data relating to the selected matching items and their associated source(s); and
   - converting data relating to a selected matching item and an associated source to data relating to an item and a different source.

32. The method of claim 31 wherein the purchase orders use data relating to at least two sources.

33. The method of claim 31 wherein the purchase orders use data relating to catalog numbers.

34. The method of claim 31 further comprising the step of determining whether a selected matching item is available in inventory.

35. The method of claim 31 further comprising the step of determining the applicable price of a selected matching item.

36. A method comprising the steps of:
   - maintaining a database containing at least two product catalogs containing data relating to items associated with the respective sources;
   - searching for matching items among the product catalogs;
   - building a requisition that includes a first matching item and a second matching item, each from a different product catalog;
   - processing the requisition to generate purchase orders for the first and the second matching items; and
   - converting data relating to a selected matching item and an associated source to data relating to an item and a different source.

37. The method of claim 36 wherein a first purchase order uses data relating to the first matching item and a second purchase order uses data relating to the second matching catalog item.

38. The method of claim 36 further comprising the step of determining whether a selected matching item is available in inventory.

39. The method of claim 36 further comprising the step of determining the applicable price of a selected matching item.

40. A method comprising the steps of:
   - maintaining a database containing data relating to items associated with at least two sources whereby selected portions of the database may be searched separately;
   - searching for matching items among the selected portions of the database;
   - building a requisition using data relating to selected matching items and their associated source(s); processing the requisition to generate purchase orders using data relating to the selected matching items and their associated source(s); and
   - converting data relating to a selected matching item and an associated source to data relating to an item and a different source.

41. A method comprising the steps of:
   - maintaining a database containing data relating to items associated with at least two sources whereby selected portions of the database may be searched separately;
   - searching for matching items among the selected portions of the database;
   - building a requisition using data relating to selected matching items and their associated source(s); processing the requisition to generate purchase orders using data relating to the selected matching items and their associated source(s); and
   - converting data relating to a selected matching item and an associated source to data relating to an item and a different source.

42. The method of claim 41 wherein a first purchase order uses data relating to selected matching items from a first source and a second purchase order uses data relating to selected matching items from a second source.

43. The method of claim 41 further comprising the step of determining whether a selected matching item is available in inventory.

44. The method of claim 41 further comprising the step of determining the applicable price of a selected matching item.

45. A method comprising the steps of:
   - maintaining a database containing data relating to items associated with at least two vendors whereby selected portions of the database may be searched separately;
   - searching for matching items in the selected portions of the database;
   - building a requisition that includes selected matching items;
   - processing the requisition to generate purchase orders for selected matching items.

* * * * *