with an accounting system in another country. Furthermore, in the IP world, each patent firm uses an internal reference to uniquely identify a particular matter. Existing invoice data capture tools are incompatible with patent firm accounting systems because they fail to capture such internal references.

Another disadvantage is that the local patent attorneys' accounting system is in their home currency, but the foreign patent attorneys' invoice is in a foreign currency. A conversion needs to happen into the home currency, but it is difficult to determine which exchange rate to use since exchange rates fluctuate regularly and the rate on the day the invoice was issued differs from the date the invoice was entered into the accounts which again differs from the date the invoice gets paid. As such, the currency used by the accounting system is often inconsistent with the bank or foreign exchange provider used to transfer money in payment of such invoices. Because the exchange rates differ, the total amounts paid or received do not match the numbers stored in the patent firm's accounting system. This incompatibility between exchange rates within accounting software and third party funds transfer providers is one disadvantage of known systems.

A further disadvantage of current systems is that in order to pay a bill in a foreign country, a user has to initiate an international wire transfer transaction. An international wire transfer is needed because the accounting system of patent firm in country A is incompatible with the banking system used by receiving patent firm in country B. Each banking system around the world uses a different format for their local transactions, which is incompatible with the transfer format used to send money internationally.

US 2012/0290474 discloses a system that makes payments to vendors, including providing early pay financing of a vendor’s invoice in a multicurrency environment.

It is an object of the present invention to overcome or ameliorate at least one of the disadvantages of the prior art or to provide a useful alternative.

SUMMARY

Aspects of an invention are set out in the independent claims.

According to a first broad example there is disclosed a computer-implemented invoice capture system including a processing computer having a central processing unit and a memory, the memory storing an invoice database, a supplier database and a client database and wherein the system is configured to perform the steps of:

a) receiving an invoice image containing invoice information;

b) analysing the invoice image to identify at least one biller name and a payer name and storing the biller and payer names in an invoice record in the invoice database;

c) comparing the biller and payer names identified in the invoice image with client records and supplier records in the client and supplier databases using a fuzzy matching algorithm;

d) where a fuzzy but not exact match is found, overwriting the biller or payer name identified in the invoice image in the invoice record with the matched biller or payer name from the client or supplier database.

The step of analysing the image file may further include:

a) identifying an image invoice currency and storing it in the invoice record in the invoice database;

b) comparing the image invoice currency with a biller invoice currency stored in the client or supplier database and, where the currencies don't match;

c) overwriting the image invoice currency in the invoice database with the biller currency from the client or supplier database.

According to this example, there is also provided a computer-implemented invoice capture method, comprising:

a) receiving an invoice image containing invoice information;

b) analysing the invoice image to identify at least one biller name and a payer name and storing the biller and payer names in an invoice record in an invoice database;

c) comparing the biller and payer names identified in the invoice image with client records and supplier records in the client and supplier databases using a fuzzy matching algorithm;

d) where a fuzzy but not exact match is found, overwriting the biller or payer name identified in the invoice image in the invoice record with the matched biller or payer name from the client or supplier database.

According to a second broad example there is disclosed a computer-implemented invoice capture system, comprising:

a processing computer having a central processing unit and a memory, the memory storing an invoice database, a client database and stored instructions adapted to perform the steps of:

a) receiving an invoice image containing invoice information;

b) identifying a payer name of a payer by analysing the invoice image;

c) retrieving from the client database a list of required invoice fields corresponding to the payer name, wherein said required invoice fields represent a set of fields required by accounting software of the payer;

d) identifying invoice data corresponding to each of the required invoice fields by further analysing the invoice image; and

fields by further analysing the image; and

D) storing the identified invoice data in an invoice record in the invoice database.

In this embodiment, the stored instructions may be further adapted to perform the steps of:

generating a bank transfer instruction file compatible with banking software of the payer; and

writing into the bank transfer instruction file the identified invoice data corresponding to each of the required bank data fields.

The stored instructions may be adapted to:

repeat steps A) to D) for each of a plurality of invoice images,

generate a bank transfer instruction file compatible with banking software of the payer, and

write into the bank transfer instruction file the identified invoice data corresponding to each of the required bank data fields, such that the bank transfer instruction file contains invoice data on a plurality of analysed invoices in a format compatible with the banking software of the payer.

The stored instructions may be further adapted to perform any one or more of:

displaying bank transfer instruction file on an interface for the payer to download;

downloading the bank transfer instruction file to a payer computer system; or

converting the bank transfer instruction file into an XML request compatible with a webservices API operated by the banking software of the payer.

According to this example, there is also provided a computer-implemented invoice capture method, comprising:

a) receiving an invoice image containing invoice information;

b) identifying a payer name of a payer by analysing the invoice image;

c) retrieving from the client database a list of required invoice fields corresponding to the payer name, wherein said required invoice fields represent a set of fields required by accounting software of the payer;

d) identifying invoice data corresponding to each of the required invoice fields by further analysing the invoice image; and

e) storing the identified invoice data in an invoice record in an invoice database.

According to a third broad example there is disclosed a computer-implemented invoice trading system including a processing computer having a central processing unit and a memory, the memory storing an exchange

and supplier invoice records, to create a consolidated foreign exchange instruction by:

creating a buy and sell total in each currency;

cancelling any buy totals for a particular currency against any sell totals for that same currency, so that each currency has only a buy or sell total; and

converting each remaining buy or sell total into a foreign exchange instruction compatible with a third party foreign exchange computer system.

In an example, wherein the consolidated foreign exchange instruction is created so as to include all of the remaining buy or sell totals, the consolidated foreign exchange instruction being compatible with a third party foreign exchange computer system.

The stored instructions may be further adapted to perform any one or more of:

displaying the foreign exchange instruction on an interface for the client to download;

downloading the foreign exchange instruction to a client computer system; and

converting the foreign exchange instruction into an XML request compatible with a webservices API operated by a third party foreign exchange provider.

According to this example, there is also provided a computer-implemented invoice trading method, comprising:

for each of a plurality of supplier invoice records where a respective supplier currency does not match a client currency:

a) converting the supplier amount in the supplier currency into a displayed invoice amount in the client currency using an exchange rate retrieved from an exchange rate database; and

b) displaying the displayed invoice amounts of the supplier invoice records on a user interface.

According to a fourth broad example there is disclosed a computer-implemented invoice access system, comprising:

a processing computer having a central processing unit and a memory, the memory storing an invoice database including a plurality of invoice records each storing at least one invoice number, a supplier database storing a plurality of supplier records each supplier record including at least one supplier domain, a client database storing a plurality of client records each client record including at least one client domain, and stored instructions adapted to perform the steps of:

a) receiving from a user an invoice number and a user email address;

b) extracting a user email domain from the user email address;

c) searching the invoice database to identify a found invoice record corresponding to the invoice number received from the user;

payer name corresponding to the invoice number received from the user;

e) searching the supplier database for both the found biller name and the found payer name and retrieving any found supplier domains corresponding to those biller or payer names;

f) searching the client database for both the found biller name and the found payer name and retrieving any found client domains corresponding to those biller or payer names; and

g) when the user domain matches either the found client domain or the found supplier domain corresponding to the found invoice record, allowing the user to access the invoice record.

According to a fifth broad example there is disclosed a computer-implemented invoice payment system, comprising:

a processing computer having a central processing unit and a memory, the memory storing an invoice database including a plurality of invoice records each storing an invoice number a biller name and a biller country, a supplier database storing a plurality of supplier records each supplier record including a supplier country and supplier bank account information, a bank rule database including a plurality of bank instruction templates, and stored instructions adapted to perform the steps of:

a) receiving a plurality of selected invoice numbers for invoices payable to suppliers located in a plurality of countries;

b) searching the invoice database to identify a plurality of found invoice records corresponding to the selected invoice number;

c) retrieving from each of the found invoice records the corresponding biller names and biller countries of the suppliers that issued the respective invoices;

d) for each of the biller countries:

searching the bank rule database to identify a found bank instruction template corresponding to the biller country;

retrieving from the supplier database the bank account information corresponding to the respective biller name; and

storing the invoice number, invoice amount, supplier name, supplier country and supplier bank account information in a domestic bank transfer instruction file in a format dictated by the bank instruction template corresponding to the biller country.

In an embodiment, the system is adapted to generate a separate domestic bank transfer instruction file for each of the biller countries.

The system may be further adapted to create a single international bank

CLAIMS

1. A computer system, comprising:

a processing computer having a central processing unit and a memory, the memory storing an exchange rate database and an invoice database, the invoice database including:

a plurality of client invoice records storing a client currency and a client invoice amount; and

a plurality of supplier invoice records storing a supplier currency and a supplier invoice amount,

wherein the system is configured, for each supplier invoice record where the supplier currency does not match the client currency, to:

a) convert the supplier invoice amount in the supplier currency into a displayed invoice amount in the client currency using an exchange rate retrieved from the exchange rate database; and

b) display the displayed invoice amounts of the supplier invoice records on a user interface,

wherein the system is configured to:

group the supplier invoice records into currency sets;

sum the supplier invoice amounts in each currency set in their respective supplier currencies; and

generate a series of funds transfer instructions,

wherein the series of funds transfer instructions comprises a single international funds transfer instruction for each currency for transferring the respective total amount in the respective currency set into a respective foreign bank account, and a plurality of local funds transfer instructions for transferring respective funds from each foreign bank account to respective bank accounts located in the same country.

2. The computer system of claim 1 wherein the exchange rate is selected from:

i) the most recently-updated exchange rate in the exchange rate database;

ii) an exchange rate corresponding to an invoice date stored in the supplier invoice record; and

iii) a forward exchange rate calculated with reference to a planned payment date selected by a user.

3. The computer system of claim 2 wherein the exchange rate is further selected

from:

a sell rate;

a buy rate; and

a mid-market rate.

4. The computer system of any one of claims 1 to 3, further configured to:

sum the invoice amounts of a plurality of client invoice records;

sum the displayed invoice amounts of a plurality of supplier invoice records; and

calculate the difference between those two sums in the client invoice currency.

5. The computer system of any one of claims 1 to 4 further configured, for a selected group of client and supplier invoice records, to:

extract information comprising:

i) a trade date;

ii) an invoice number;

iii) a biller name; and

iv) a payer name; and

store the information in a file in a banking file format.

6. The computer system of any one of claims 1 to 5 further configured to, in response to a user selection of a plurality of client and supplier records, store a trade date and a trade reference in the selected client invoice records and store the trade date and the trade reference and the displayed invoice amount in the selected supplier invoice records.

7. The computer system of any one of claims 1 to 6, further configured, for a selected group of client and supplier invoice records, to create a consolidated foreign exchange instruction by:

creating a buy and sell total in each currency;

cancelling any buy totals for a particular currency against any sell totals for that same currency, so that each currency has only a buy or sell total; and

converting each remaining buy or sell total into a foreign exchange instruction compatible with a third party foreign exchange computer system.

8. The computer system of claim 7, wherein the consolidated foreign exchange

instruction is created so as to include all of the remaining buy or sell totals, the consolidated foreign exchange instruction being compatible with a third party foreign exchange computer system.

9. The computer system of either claim 7 or 8, wherein the stored instructions are further adapted to perform any one or more of:

displaying the foreign exchange instruction on an interface for the client to download;

downloading the foreign exchange instruction to a client computer system; and

converting the foreign exchange instruction into an XML request compatible with a webservices API operated by a third party foreign exchange provider.

10. A computer-implemented method, comprising:

for each of a plurality of supplier invoice records where a respective supplier currency does not match a client currency:

a) converting a supplier invoice amount in the supplier currency into a displayed invoice amount in the client currency using an exchange rate retrieved from an exchange rate database; and

b) displaying the displayed invoice amounts of the supplier invoice records on a user interface;

grouping the supplier invoice records into currency sets;

summing the supplier invoice amounts in each currency set in their respective supplier currencies; and

generating a series of funds transfer instructions,

wherein the series of funds transfer instructions comprises a single international funds transfer instruction for each currency for transferring the respective total amount in the respective currency set into a respective foreign bank account, and a plurality of local funds transfer instructions for transferring respective funds from each foreign bank account to respective bank accounts located in the same country.

11. The method of claim 10, further including the steps of:

summing the invoice amounts of a plurality of client invoice records;

summing the displayed invoice amounts of a plurality of supplier invoice records; and

calculating the difference between those two sums in the client invoice

currency.

12. The method of claims 10 or claim 11 further including the steps of, in response to a user selection of a plurality of client and supplier records, storing a trade date and a trade reference in the selected client invoice records and storing the trade date and the trade reference and the displayed invoice amount in the selected supplier invoice records.

13. The method of any one of claims 10 to 12, further including the steps of, for a selected group of client and supplier invoice records, creating a consolidated foreign exchange instruction by:
creating a buy and sell total in each currency;
cancelling any buy totals for a particular currency against any sell totals for that same currency, so that each currency has only a buy or sell total; and
converting each remaining buy or sell total into a foreign exchange instruction compatible with a third party foreign exchange computer system.

14. Computer software configured to, when executed by a computing device, implement the method ofany one of claims 10 to 13.

15. A computer readable medium, comprising the computer software of claim 14.