TROFFI - comprehensive management system tailored for translation agencies

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This presentation describes the main features and advantages of a completely new software package called TROFFI (TRanslation OFFIce), tailored for the global management of a translation agency. The presentation is aimed at Language Service Providers interested in solutions for their company and project management, as well as those dealing with the preparation and implementation of Quality Management Systems. The idea and unique features of TROFFI are inspired by and based on almost 15 years' experience in managing a Translation Agency, as well as experience in preparing for and successfully obtaining certification to ISO 9001:2000 standard.

The functions of TROFFI are structured along three axes:

1) state-of-the-art technology enabling TROFFI to be accessed via the Internet;

2) advantages of TROFFI as a global translation office management system,

3) conformity to the requirements set out in the ISO 9001:2000 standard

I   STATE-OF-THE-ART TECHNOLOGY ENABLING TROFFI TO BE ACCESSED VIA THE INTERNET

TROFFI's structure is based on cutting-edge Java 5.0 Technology, used in conjunction with other technologies such as J2EE, EJB, JDBC, JNDI, Hibernate, HQL, RMI, XML, XSLT, Tiles, Struts, HTML, JSP, HTTP, HTTPS.

Put simply, TROFFI is an internet application, accessible via the company's Intranet. TROFFI is installed on a central server (or a central PC) to which all users have access via Intranet. The structure of such a configuration is presented in the diagram below: (Fig. 1)
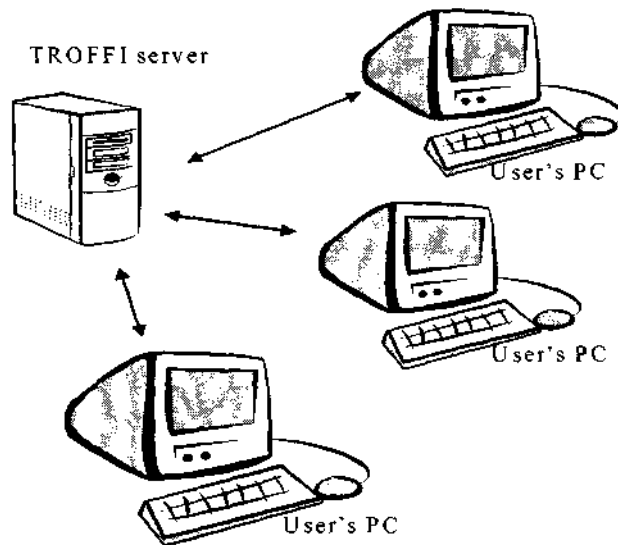
Fig. 1, Diagram of TROFFI access scheme.

TROFFI can be accessed via a standard web browser, e.g. an Internet Explorer or Mozilla FireFox. This feature offers several significant advantages.

First of all, TROFFI does not need to be installed on all users' PCs. It is installed only on the server. In the event of any software changes (new version, upgrade) - users always access the most up-to-date version. So again, there is no need for software maintenance on every PC. Moreover, all settings and configuration done in TROFFI (on the server) take immediate effect on each user's PC. There is therefore no need to instruct each individual user about the proper setup or configuration procedure of the software.

What is more, all computation related to the TROFFI management system is done on the server, so the requirements for users' PCs are minimal, and are met by almost all PCs used nowadays for office work.

TROFFI supports parallel multi-user access functionality. This means that any data introduced by one user are immediately accessible to all other users (having equal or higher access rights).

TROFFI has an easily scalable structure, based on a multi-layer application model.

These layers are: presentation, business & integration, and database, as presented in the diagram below (fig. 2):
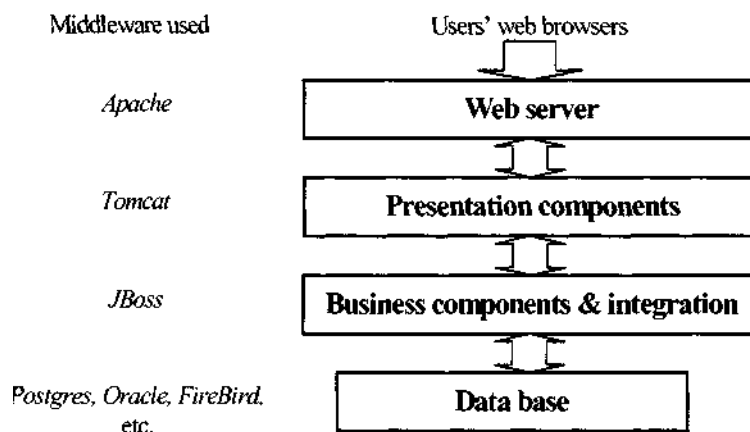
Middleware used   Users' web browsers

Apache — **Web server**

Tomcat — **Presentation components**

JBoss — **Business components & integration**

Postgres, Oracle, FireBird, etc. — **Data base**

Fig. 2. TROFFI structure, based on a multi-layer application model.

The TROFFI management system integrates with the user's existing hardware and software environment. It can be operated from different hardware platforms (Intel, SUN) and various software platforms (Windows, Linux, Solaris). It also supports many types of SQL databases, such as Postgres, Oracle, FireBird. The TROFFI server can also be localised on each of these platforms.

Integration with the user's software also enables:

- creation of project folders,

- generation of documents and reports in PDF format,

- integration with an FTP server enabling management of customers' and suppliers' accounts on the company FTP server.

- automatic sending of e-mails directly from TROFFI

Access security is guaranteed by the following TROFFI features:

    o Encrypted connection (via https)

    o Authentication - user accounts with individual login and password

    o Authorisation - possibility of defining access policies. It is possible to define which user groups have access to which data and with which rights - view, modify, create and delete

    o Limited Internet access, possible with proper network configuration of the so-called DMZ (demilitarised zone)

Data security is guaranteed by the following features of the system:

    o Integrated tool for data backup (suitable for each database used)

    o Data integrity is guarded against any violation by transactional service used in the business layer

II   Advantages of TROFFI as a global translation office management system

The global management system TROFFI is a helpful tool for all employees as well as for the management staff of a translation agency. It improves the efficiency of the staff responsible for Human Resource management, Sales, Project Management,

Finance Management and Quality Assurance, as well as the top management of the agency.

TROFFI was designed to provide easy and practical solutions for various positions in a translation office. Special emphasis was placed on solutions to even the most unusual cases. Each client requires an individual approach, and many projects have their own specific character. Therefore the idea was to create a tool that would not confine the user. A tool which enables smooth registration of nearly all atypical situations. In TROFFI we managed to meet this requirement.

In the next chapters we will review all the major everyday activities of a translation agency. This includes supplier- and client acquisition, project management and financial management. Special attention will be paid to TROFFI's conformity with the requirements set out in the ISO 9001:2000 standard

II.1   Advantages for Human Resource staff

A team of tried and tested professionals is the key to the provision of high quality translation services. It is crucial to maintain and manage information about all associated translators, proofreaders, reviewers, editors, DTP experts, etc. A proper standardised order in the information about translators - their language combinations, fields of expertise, services offered, rates, calculation units, bank account details, as well as agreed terms and conditions of payment - is essential for the working efficiency of the Project Managers, Financial Manager, etc.

The Suppliers module in TROFFI is the perfect solution, allowing all this information to be stored in one place in a very clear layout and in perfect order. And, most importantly, once this information has been entered, it is accessible and usable in all other modules of the TROFFI management system.

The Human Resources staff can enter the following data for each individual supplier: main identification data, all contact details, correspondence address, bank account details (with special instructions for payment procedure, if necessary), information about CAT tools used by the supplier, other software and hardware used, language combinations, fields of expertise and rates in all possible configurations. What is more, details of contact persons can also be entered within a supplier's data, and furthermore a full history of contacts with each supplier can be maintained.

In a more advanced TROFFI configuration, an FTP account can be automatically created for each individual supplier on the FTP server (if it is compatible), to enable easy exchange of files via FTP.

One might say it is a mammoth task to enter all these data. But they are entered once only. Consider all the time and money that is wasted if data are not in order and have to be tracked down in a hurry when they are urgently needed.

And TROFFI even provides a solution to speed up the input of these data. It is possible to enter data via an additional website, accessible from outside the office. It is enough just to ask suppliers to enter their profiles into TROFFI via Internet.

Not only will the Human Resources staff then be able to gather and input all the information faster, but this will also provide the perfect opportunity to update suppliers' profiles with current information, contact details, services offered and rates.

Having these data in TROFFI, an advanced search engine enables the user to perform various searches in the Suppliers database.

II.2   Advantages for Sales staff

The suppliers are just one aspect of the Translation Business. The second aspect is the clients. Client acquisition is a crucial role of the Sales staff. Here, the need to keep all information in perfect order is even greater.

There are, as a rule, more contact persons in the clients' organisation structure. Also the offer associated with each client is much wider. A real advantage of this module of TROFFI is the possibility of entering a very complex offer. You can enter as many language combinations as you wish, with different prices for different activities, calculation units and even specific subjects of texts.

But we have taken the matter even further! It is very common for translation agencies to receive projects subcontracted from other translation agencies. And it happens that for different end-clients these translation agencies agree different special rates or different currencies. The TROFFI system enables you to enter several price profiles for the same customer. Each price profile can also have its specific CAT discounts grid.

In TROFFI, price-lists can also be created and easily associated with specific client price profiles. Special rates that have been negotiated exclusively with one client, and which deviate from the general price-list, can then be entered.

Never again will you have problems with storing non-standard information.

CRM Module

In order to manage your contacts with clients efficiently, and effectively expand your business to new clients, a Customer Relations Management module has been included in TROFFI.

This is a tool which is especially useful to Sales managers, as it enables users to store and control all contacts with each client. In a very clear form, you can store information about the outcome of each contact with each individual client, about the type of action taken towards the client, about agreements with the clients, etc. A clearly presented history of contacts with each customer enables the Sales Manager to maintain relations with any client contacted, and never to forget about him.

Moreover, the tool makes it possible to send group mails to addresses chosen from the Clients or Suppliers database. This is a perfect solution to any need to communicate something to a larger group of people. Of course every such contact would also be automatically stored in a history of contacts with each individual client and/or supplier.

II.3   Advantages for Project Management staff

Project Management is a key position in every translation agency. This is where all customer requirements should meet the supplier's response. And it is here where the data of both customers and suppliers are absolutely indispensable.

It is at this position that the efficiency and quality of work should and can be improved most. Project Management involves starting up new projects as well as managing projects which are already running. It must be kept in mind that the mistakes caused by project managers have the most serious financial consequences. Therefore this risk must be reduced to an absolute minimum.

How does TROFFI respond to these challenges?

In order to eliminate the risk of mistakes, TROFFI is designed to prompt or recall as many data as possible to the Project Manager. And in order to increase the speed and efficiency of work, TROFFI automatises many common functions.

An individual number is assigned to each project automatically. All tasks and activities involved in the project, all instructions, deadlines, general and special agreements, analyses, calculations with customers and suppliers, and payment data are then subordinated to this individual project number.

When setting up a multilingual project, several target languages can be added at the same time. All rates and TRADOS discount grids agreed with the customer and all translators involved appear automatically, taken from data input in the modules described above (Customers module and Suppliers module). TRADOS analysis files can be automatically imported to the TROFFI database and they will be used for calculating the project value.

The TRADOS analysis imported into the calculation with the client is automatically suggested (included?) in the calculation with the suppliers, thereby saving the Project Manager a great deal of time.

In the TROFFI configuration, a user may predefine the structure of the folders for each individual project. Such folders will be automatically created when starting a new project. In this way a clear and standardised folder structure is maintained for all projects.

From the point of view of the workflow it is possible to set the activities that should be automatically added to each task, for example a Final Quality Check.

Additionally, for each project, all parts of the calculation with the customer can be automatically imported to the calculation of the supplier's activities. In this way Project Managers will only need to choose a provider - volumes will be taken from the customer's calculation while the rate will be automatically imported from the profile of the chosen service provider.

The Project Manager can also automatically create the Purchase Order (in a PDF format) for each provider engaged in the project, of course with the correct number specifying the individual project. With a simple click on "send", such a PO can be automatically sent by e-mail to the e-mail address of the supplier, taken from his/her profile.

In the same way, with just one click, the Project Manager automatically sends all project details and calculations to the client, for approval. The e-mail address of the customer's contact person is taken directly from the customer's profile.

In order to choose the most appropriate supplier for each activity required in a given project, the Project Manager uses a simple search function, where supplier requirements can be set. In that way only matching suppliers will be shown for optimal choice for the particular activity. Matching suppliers are listed in a table, recalling also their evaluation mark and rate. All rates are recalculated to a common

currency (set in the TROFFI configuration), enabling an easy comparison of rates (even though suppliers and clients may use various currencies).

In order to make project management user-friendly, the authors of TROFFI have designed a Project Manager's Desktop. Based on the status of each project and its related activities, the Project Manager will see projects which require certain actions.

The following information about projects can be viewed: all projects already started but not yet assigned to anyone, all tasks expected from suppliers, all projects that should be delivered to the client, etc. The Project Manager's Desktop also allows for a direct link to each project under consideration, thereby saving the Project Manager the time of searching for specific data, and eliminating unnecessary efforts.

All projects due for the present day will be shown at the top of the screen. Thanks to this feature, the Project Manager will not forget any project, because the system will remind him about all projects before their deadline.

II.4   Advantages for Financial Management staff

All data entered by Project Managers can then be used by the Finance Manager(s). The work related to preparing and issuing invoices to customers, as well as preparation of calculations with suppliers and the continuous checking of all financial parameters becomes much smoother and faster. Finance Manager(s) need only decide which projects should be invoiced / paid on which day, and the amounts are calculated automatically.

However, the majority of customers impose their individual invoicing rules, especially the dates of invoicing and agreed delays in payments. The Finance Manager(s) should observe these individualised terms and conditions. To make the situation even more complicated, for tax purposes it might be useful to implement a two-stage invoicing system: (1) draft specification or draft invoice for preliminary notification of the total amount due; (2) final invoice issued later. If the total number of customers is significant, the task becomes very complicated.

Here too TROFFI is of great assistance. The system makes it possible to define individual invoicing rules for each client separately in the form of clearly organised invoicing schemes. Just to give an example, it is possible to set the information that all projects performed for client A should be included on a draft invoice issued at the end of the month in which the final translation was delivered (M1). After 25 days, so M1 + 25D, a final invoice should be issued, and the payment should be expected by 15th day of the next month, so M2 + 15 D.

In this way, TROFFI reminds the Finance Manager daily of invoices to be issued, generating appropriate lists of customers and specifications of projects to be invoiced.

An analogous set of information can be stored for all suppliers. Thus preparation of calculations and payment of suppliers is also maintained in perfect order and conformity with agreed dates.

As a result, all customers and suppliers will receive a very positive impression of the company's invoicing and payment processes. In addition, all money transfers, both incoming and outgoing, will achieve excellent regularity.

These data make it possible to automatically generate cash-flow forecasts, which is another important advantage of the TROFFI management system.

In cash-flow analysis, the Finance Manager is informed about the total amount of delayed payments and then he/she is given a chart presenting a forecast of the company's bank balance day-by-day. The cash-flow diagram is generated on the basis of scheduled incomes, scheduled payments to suppliers, as well as pre-defined fixed costs of the agency, which can also be entered on TROFFI. In this way the cash-flow forecasts are very close to reality.

By using such cash-flow forecasts, the Finance Manager knows in advance the best time for investments or revenue sharing, as well as in which periods the demand for circulating capital will be higher, in order to arrange external financing in time, if necessary.

II.5   Advantages for the Development Manager

The Development Manager will find all TROFFI's reporting functions of assistance. The possibility of quickly obtaining reliable information about the number of new suppliers, number of new clients, turnaround trends, etc. will be very helpful for increasing the efficiency of his/her work aimed at developing the company.

Such an analysis can also serve as a basis for the preparation of future development plans to be discussed with the CEO or other members of the Management Board.

II.6   Advantages for the CEO

The CEO, who has unlimited access to all features of TROFFI, receives a versatile picture of the functioning of whole company as well as analytical information based on aggregated values.

Using various modules, the CEO can analyse the turnover trends, profitability (both in terms of general factors and individual results of chosen segments of services), cash-flow forecasts, production volume, total number of projects, average project value, number of projects managed by each Project Manager, number of new customers, etc. The CEO can easily obtain all information that might be necessary when planning new investments, analysing the accountancy reports or when preparing credit applications for bank authorities.

The TROFFI management system, in which all information is stored in one place, can create required reports, queries, graphs and diagrams in just a few clicks of the mouse.

Thus the CEO has a tool enabling the continuous monitoring of his company's activity and standing.

III   TROFFI features complying with the requirements set out in the ISO 9001:2000 standard

III.1   Advantages for the ISO 9001 representative

The ISO 9001:2000 Quality Management system refers to all processes and work positions in the company. The TROFFI global management system was created as a

suitable tool that would facilitate the procedure of preparing and maintaining the ISO 9001 certificate in a translation agency.

The authors of TROFFI successfully completed the entire certification procedure in their own Translation Company and used their personal experience in this field.

Actually the procedures of the quality management system implemented by an ISO 9001 certified translation company require the staff to prepare and maintain numerous documents, reports, analyses and to fill in several questionnaires.

TROFFI is a very useful tool for these applications too and saves the company's ISO 9001 representative a great deal of time.

III.2 Automatised generation of useful indicators and trends to measure the efficiency of the quality management system

The ISO 9001 standard with its process-based approach requires companies to identify processes in the company and specify indicators to measure their efficiency.

These indicators are necessary to fulfill the requirements of Clause 8.4 of the ISO 9001 standard - Analysis.

In fact, many of these indicators can be automatically calculated by TROFFI. Of course it depends on the choice of indicators made by a company and written in the Quality Manual. Such automatically calculated indicators can for example be:

- For the process of company management: turnover, operational profitability.

- For the process of quality system management: - number of justified complaints

- For the process of company development: number of new customers, number of new verified suppliers

- For the process of project management: regularity of meeting deadlines, customer satisfaction scores, project profitability (general, by project manager, by language combination, etc.).

The following analyses can be generated for the management review: customer satisfaction measured using the trends of average monthly turnover by customer or the number of justified complaints

In order to simplify the work of the ISO 9001:2000 representative, for each individual project stored in TROFFI database all information about complaints can be added, as required by the ISO 9001:2000 standard. If all text boxes are filled in, a completed form can be automatically issued and printed for each complaint, including reports on applied corrective action and preventive action, according to the respective standard requirements (Clauses 8.5.2 and 8.5.3).

Another advantageous feature of TROFFI is the possibility of continuous monitoring of the quality trends of each individual supplier. TROFFI enables the user to assign scores for each activity provided by each supplier. For example, a proofreader working on a given project can estimate the quality of the translator's work. Using these scores, the ranking of suppliers can be automatically updated periodically, eg. at the time of internal audits. These rankings will be used in the supplier search

module, as an excellent tool to help Project Managers to assign the best supplier to each type of project.

The TROFFI system also fulfils the next significant requirement of the ISO 9001 standard: to store data in a proper order, and to maintain traceability of processes. Each individual project, each task and each separate activity has its unique number that guarantees perfect identification. Using this number, it is always possible to find all data related to the specific item and the suppliers involved and responsible for its execution.

Another important condition is the reliable separation of ready products (final files) from those created during intermediate stages of project execution and hitherto not complying with customers' requirements. This requirement is automatically met, thanks to the automatic creation of folders structure for each project. The user has simply to specify in which sub-folder the ready files are stored. Only these files can be released for delivery.

Summary

The successful implementation of TROFFI at Lido-Lang Technical Translations is a synergistic effect of co-operation between skilled IT professionals and the experienced top managers of a translation agency which has been providing translation services via Internet since 1995.

The features of the system conform to the requirements of a quality management system as defined in the ISO 9001:2000 standard. In addition, TROFFI solutions conform to the rules and regulations of the future EU branch standard, existing now in draft form - prEN 15048.

Completion of tests on all modules of TROFFI in the real environment of a translation agency is scheduled for the last quarter of 2005. From the first quarter of 2006 we would like to merchandise the licenses for our product - TROFFI global management system - worldwide.