

Taylor Nelson Sofres, France

Nathalie Génieux, W4, France

EXECUTIVE SUMMARY

Taylor Nelson Sofres is the French market leader for ad hoc research, market surveys, polls and consultancy. The company provides a full range of qualitative and quantitative services across the spectrum of consumer, social and industrial research spanning all business sectors. It is well known for pioneering opinion polls in France in the 60s and has been a major player in this activity ever since.

Taylor Nelson Sofres' strategy is to develop more and more its survey activities in order to face stronger competition in its own territory. In that context, it is expected that the competition will evolve not only on the field of services and geographical coverage, but also on the productivity and quality of services offered. Taylor Nelson Sofres voluntarily chose to resist the competitive pressures by increasing the quality of its services and improving the treatment of survey production.

Survey processing requires tight cooperation between various departments and involves a great number of users to work better together, and compiles a great amount of information. Additionally, the survey production processing represents an important part of the workload for Taylor Nelson Sofres. It represents 80 percent of its turnover. These requirements lead the technology choice to a workflow based solution as to enhance the quality of services in spite of a specialized distributed work organization.

Therefore, they recently led a complete reform of their work methods. Having invested in the renewal of their production tools (CATI and CAPI), Taylor Nelson Sofres had in view the processes automation and optimization of their survey production.

The project aimed to use the Intranet of Taylor Nelson Sofres created in July 1999 but left on the back burner since. In fact, Taylor Nelson Sofres had an information system made of a certain number of isolated management applications. These applications didn't form any consistent information system. In-house, Taylor Nelson Sofres had no computer network. It clearly appeared that the workflow application would be the keystone of the new network increasingly directing collaborative work applications.

After a preliminary analysis of workflow technical capabilities, including a first round consultation of potential vendors, the head office finally decided to concentrate their efforts on a workflow project

dedicated to the process of manufacturing quantitative surveys on Intranet.

A workflow system was chosen to be the pillar of this new information system, as a frame of reference for the procedures of surveys production, as well as a frame of reference for the data and documents related to a survey and a linking factor between the applications of surveys production.

Taylor Nelson Sofres nominated a driving committee consisting of 10 persons, survey managers and members of each Production management unit. The prototyping phase was conducted directly with users. This collaborative design phase, supported by prototyping of the application accessible on the Intranet, was essential to the whole project success. Members' participation was active and intensive.

The workflow application was prototyped, developed and deployed in nine months time. Today, the workflow is deployed with over 300 participants in 15 departments, making daily use of this application.

The workflow application is the first production application implemented on the resources of the Intranet. In a single year, the workflow application implemented three hundred users and upheld its promises. Workflow was identified as a way to enhance productivity and quality of services, and a project started on a process mastering the critical core process of the Sofres' survey production. The selected workflow tool, making a graphic design operational, has enabled to describe and enhance the business complexity and functional richness of Taylor Nelson Sofres.

In fact, this application has demonstrated the high complexity of the Sofres' core business. It contains one main procedure and three sub-procedures, more than 200 steps, and over 1 000 variables for each work case. This complexity is inherent to Taylor Nelson Sofres' core business itself and not to the workflow.

Migration of users to the new Intranet/Workflow environment and acceptability of the workflow paradigm was higher than expected. The users appreciated both the power delivered and the interface flexibility that has allowed the users extremely ease of use of the application. They have really mastered the application and decided at the same time to make the workflow available through an enterprise portal to place a test application on line for training themselves on the workflow process.

Workflow suppresses physical transfer between all services, reduces capture operations, develops the Information System as a cross application and increases communication between the different enterprise applications. Thus, it allowed Taylor Nelson Sofres to provide productivity gains, and the expected increase in quality of service

was achieved. Information circulates seamlessly, workgroups gained in efficiency, and time to market has been dramatically reduced.

With a good acceptability of the technology by Taylor Nelson Sofres employees, the project has demonstrated La Sofres' capability with the selected technology to develop rapidly and economically deploy the workflow application as to empower processes over a large number of participants. By combining in-depth market knowledge with the latest research techniques and sophisticated use of state-of-the-art-technology in Workflow, Taylor Nelson Sofres provides its clients with immediate and informed market analysis and innovative business solutions.

Thanks to the workflow technology, Taylor Nelson Sofres was able to drive the project in the best possible conditions. The workflow application has become the core structure and an essential pillar of the corporate information system.

OVERVIEW

Taylor Nelson Sofres had an information system comprising a certain number of isolated management applications. These applications didn't form any consistent information system. In-house, Taylor Nelson Sofres had no computer network.

The Information System Unit in charge of the project, under the control of Arnold Haine, the Production Information Systems Manager, realized that workflow was the solution. "It clearly seems that the workflow application is going to be the keystone of the new network increasingly directing collaborative work applications. The Workflow processing was identified as a major potential source of progress for both productivity and quality of services."

The need is to have a workflow that could progressively merge with the Taylor Nelson Sofres global groupware Intranet architecture.

Taylor Nelson Sofres required a workflow system:

1. To be the pillar of the information system and the cement between isolated management applications,
2. To improve the collaboration and consistency between the various department of the specialized distributed work organization,
3. To reduce enormous volume of paper,
4. To remain independent from the e-mail system,
5. To enhance the quality of the services offered.

Such a critical project, impacting its very core business, is of extreme importance at Taylor Nelson Sofres. No mistakes are allowed.

The workflow application was prototyped, developed and deployed over a period of nine months. In September 2000, the application was developed according to the spiral methodology, in close collaboration with the employees involved, and deployed step by step within the company.

This application is very complex, it contains one main procedure and three sub-procedures, more than 200 steps, and over 1,000 variables for each work case.

This complexity is inherent to the Taylor Nelson Sofres' core business itself and not to the workflow. Only a workflow tool, making a graphic design operational, enables users to describe and master the business complexity and functional richness.

In fact, the key characteristics of the workflow project were based upon:

1. A project management including active users participation,
2. As simple as possible user interfaces tailored to users' working conditions,
3. Maximize users' efficiency, and
4. Keep it as simple as possible in order to train users in a short time.

Those characteristics were essential in the acceptability of the solution by users, as well as the productivity and quality gains observed.

Today, 300 people make daily use of this application, and would not consider going back to the old methods. Two and a half hours training was given to users, who were then able to use all the basics and thus master the application.

The combined effects of tangible productivity gains and quality efficiency together with low development and deployment costs resulted in a positive return on investment and a dramatic reduction on time to market.

The project has demonstrated La Sofres' capability to develop and deploy workflow-enabled processes rapidly and economically for a large number of participants. The acceptability of the technology by Taylor Nelson Sofres employees was demonstrated successfully. This will form a solid foundation for further extensions of workflow applications.

KEY MOTIVATIONS

Five crucial objectives motivated Taylor Nelson Sofres' choice in implementing the workflow:

5. Qualitative objectives
6. A strong need for collaboration and consistency
7. Organize and optimize the treatment of the information associated to a survey
8. Remain independent from the e-mail system
9. Become the pillar of the information system

Qualitative objectives

Methodology: Taylor Nelson Sofres reappraised its whole organization. With a volume of more than 1,000 surveys produced a year, representing roughly one million questionnaires, the main object of

this "reform" was above all qualitative, reliability and normalization of the processes.

Acceptability of the Technology: 300 employees daily use this application, more than two hundreds tasks were modeled. Head Office considered this project as strategic for the company. All these reasons lead the project leader to focus on the acceptability of this new technology. A first assessment shows that Taylor Nelson Sofres employees get a better control and follow-up of their business processes. New employees' training is made faster and easier.

Communication and Control: Taylor Nelson Sofres has optimized the collaboration among users scattered geographically and control on information, with an accurate records follow-up. The workflow application has allowed a better communication between all actors involved in the survey production. The workflow system dispatches the tasks at the right time to the right persons, and guides the user all through the process. Information circulates in a seamless way and workgroup has gained in efficiency.

Company archives: This new workflow application is a key for the company's overall memory. All the current or past surveys are stored in a central database and can be quickly accessed by every employee concerned.

A need for collaboration and consistency

Need intranet to collaborate: In order to address the problems related to the number and geographical repartition of the different units and market researchers (60 specialists in 15 centers), Taylor Nelson Sofres deployed a quality control and groupware infrastructure through Intranet.

Need Workflow to cooperate: With the Taylor Nelson Sofres organization, survey activities are operated in various specialized centers. The process requires close cooperation between the Production department and the various market researchers, dispatched in teams of over 60 specialists in 15 centers. This was a strong motivation to launch a workflow project, with the goal to enhance the quality of services despite a distributed work organization.

The Product management unit, which previously had a strong "black box" image, wanted to be more transparent for all, and especially for the survey managers. All the participants should be able to follow any survey process in real time.

Need Workflow to control: After implementing a set of quality processes and deploying the Intranet infrastructure and the groupware tools, they needed a workflow solution allowing their employees to control the consistency of a highly critical, complex process driving their core business: survey production. The workflow covers the whole production processing of the quantitative surveys, from the negotiation of the contract to the distribution of results.

Need Workflow to organize: The number of surveys to be treated is over 1000 a year with 300 persons involved. The process includes hundreds of activities. It is mandatory that the workflow be centered on the market researcher's needs and the Launch cell of the Production Department. These two "actors" should be able to know at any time the status of any survey, notably during the field inquiries. An electronic document should be attached to the flow. Also, the notification of a document should be assured. The modifications, for instance: changes, additions, withdrawal, etc., should be in an easily identifiable form.

Organize and optimize the treatment of the information associated with a survey

Reduce the volume of paper: The primary target of the system is to reduce the enormous volume of paper, which accompanies every stage of the survey production. This reduction is obligatory to have an indispensable flexibility in the evolution of each process (dynamic modifications).

Optimize access to the information: By suppressing physical transfer between all services, reducing capture operations, developing the Information System as a cross application, increasing communication between the different Enterprise applications, the workflow has allowed Taylor Nelson Sofres to obtain productivity gains with an expected increase in quality of service.

Remain independent from the e-mail system

At the architecture level, the software is installed on a dedicated NT Server and has its own database (Oracle) with its own users' directory. The application must not communicate with the e-mail system. This independence is rather a good thing for questions of solidity and availability. The workflow engine has to execute the modeled processes in the database (task implementation in real time to the right performers).

All these goals were achieved with this application, which also brought several unexpected benefits: a better mutual understanding between the participants, the establishment of a common thesaurus between several market research managers, the general management of the information system (particularly the management of the researchers) concerning the workflow, and a very strong impact on the working habits.

The workflow application as the pillar of the information system

Building up an information system: In 1997, like many other French mid-size companies, Taylor Nelson Sofres had an information system made of a certain number of isolated management applications. These applications didn't form any consistent information system. In-house, Taylor Nelson Sofres had no computer network. In order to communicate, a postal shuttle was used to transport documents and floppy disks to the various participants of a

market survey. Each person who intervened in a market survey, and particularly the market research manager, who is commercially in charge of the surveys, had only a fragmented view of the surveys, their production and their progress.

Consequently, the managers created a real information system about the company's core business; the production of market surveys. The aim was to enable the market research managers to follow a survey entirely, from its beginning to the result delivery.

The information system objectives: The workers who intervened in a survey's production knew their jobs, but had no knowledge of the actions performed before and after their intervention, and there were no descriptions to make all the survey production process consistent.

- The workflow's first goal was to update all the procedures.
- The second expected goal was to suppress reentering data; workflow being the link between the existing applications.
- The third expected goal was the entire tracking of the surveys, while they were being produced and once they were achieved, providing a progress follow-up as well as a knowledge base.

The Workflow as the pillar of the information system: The features of the existing information system associated to the objectives of the new system leads the managers to choose the W4 workflow system as the pillar of this new information system. The workflow is the frame of reference for the procedures of survey production, as well as the frame of reference for the data and documents related to a survey and is the linking factor between the applications of surveys production.

THE WORKFLOW PROCESS OVERVIEW

Requirements

Essential needs that the application should satisfy:

- The modelling costs must be reduced, and, above all, the adaptation costs must be reduced, since this is SOFRES' core business. The application must be easy to modify in order to reflect the process changes,
- Major importance given to process monitoring and deadline monitoring,
- Keep the main organizational work in place unchanged, except for obvious adjustments,
- Enforce regulatory aspects of the process but without attempting to redesign them; and
- Give priority in the application design to ease of use and ease of learning.

The training and appropriation costs must be reduced, mostly because of this business' high turnover.

Human organization

With more than 500 permanent employees and 300 market researchers dispatched over several specialized expertise centers (corporate, semiometrie, Sofres inter@ctive, IT/telecoms, Internet, consumer, politics, Healthcare, Retails, surveys, medi@, automotive, marketing services, financial communication etc.), Taylor Nelson Sofres produces surveys covering the country business activity.

Each center deals in a specific activity. The overall consistency is ensured by cross management units focusing on the critical phases of collecting and processing information. The Information system management unit provides the technological infrastructure, and the Production Unit, driving Sofres core business, supplies the tools needed by the survey departments to drive the many missions and their follow-up.

These several units, (dispatched geographically) grouping over 300 market researchers, are in charge of the survey production. Their missions cover four main activities:

1. Initializing the process by transmitting a demand to the Launch Cell.
2. Definition of the target to be interrogated, the quota to be respected, the methodology to be followed.
3. Transmission of the orders for capture (total capture if paper—partial if CAPI-CATI).
4. Validation of data and coherence with the expected results and transmission to the final client.

A complex workflow process

The workflow is centered on the market researcher's needs and the Launch cell of the Production Department. These two "actors" should be able to know at any time the status of any survey, notably during the work field.

- The workflow is initiated after the customer's agreement when the market research manager forwards a launch request to the production managers and the arrival point is the delivery of the survey's results to the manager.
- The Launch cell of the Production Department validates the launch request and coordinates the numerous manufacturing processes (sampling, reprography, sending, collection, work field, telephone or face-to-face, entering data, handling, computer operating, CD-ROMs digitization).
- The sampling department prepares the survey's samples and, if needed, prepares the sample bases.
- The Reprography Department manages the creation and/or the duplication of all the necessary documents.
- The Sending Department sends the paper supports and the CD-ROMs to the researchers.

- The CD-ROMs Digitization cell converts multimedia supports and duplicates CD-ROMs, which are then sent by the Sending Department.
- The Collection cell programs the questionnaire for the surveys made with CAPI (face-to-face) or with CATI (by phone). Once programmed, the questionnaire is tested by the market research manager. Within the framework of a CATI survey, the Collection cell gives the survey to the field.
- The Computer Operating Department provides the CAPI surveys and ensures that the data collected by the researchers are communicated.
- The telephone (CATI) or face-to-face (CAPI or pencil) fields ensure that information is collected by the researchers' network. The fields inform the managers and the Launch cell of how the survey progresses.
- The Data Entering workshop enters the open-ended questions resulting from the CATI/CAPI surveys and the paper questionnaires resulting from the fields.
- The Data Processing Department goes through the collected data and analyzes them, and gives the results to the market research manager.

Each manufacturing cell as well as its production process is taken into account in the workflow, so that every actor can clearly know the state of each survey, whether the survey is still planned, running, stopped or achieved.

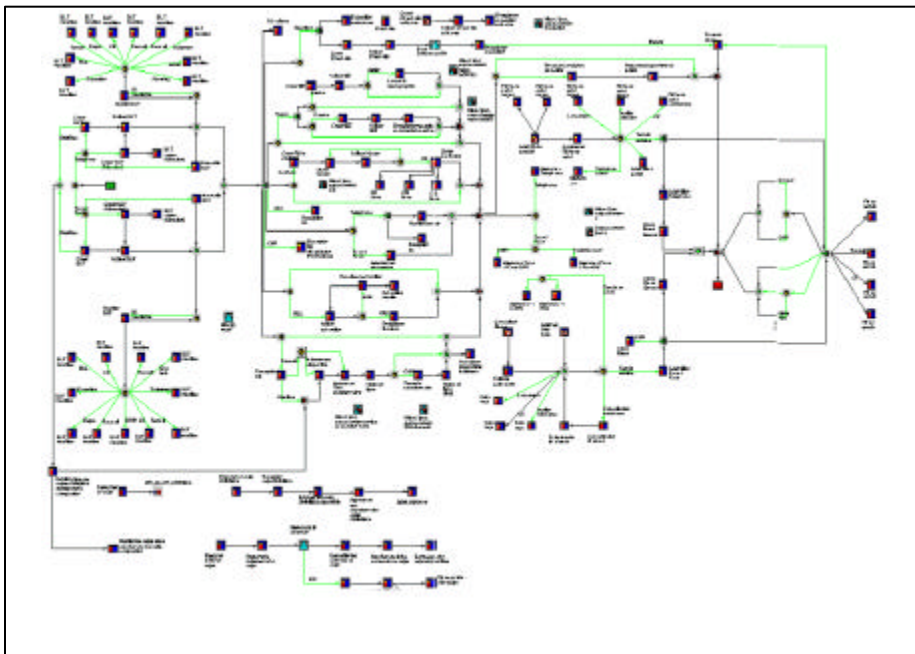


Figure 1: One of the application processes

The very complex application demonstrates the main features required for La Sofres' events processing. The process definition includes one main procedure and three sub-procedures, more than 200 steps, and over 1,000 variables for each work case.

This complexity is inherent to the Taylor Nelson Sofres' core business itself and not to the workflow.

It incorporates comprehensive business rules evaluating activity participant decisions and critical activities.

A survey includes numerous parameters that have to be finalized and validated by several people. The process must also manage the various changes, which can occur before launching or even during the survey. The possible changes can influence the rhythm, and therefore the budget allocated to the survey.

This involves processes that must follow very precisely the defined procedures and internal regulations. With traditional paper-based technologies, this involved relatively long processing delays, due to the numerous transmissions between actors in the processes.

This was a source of dissatisfaction. It was not always easy to respond to these claims, due to the lack of adequate tools to follow up each case in its various stages. These processes were obvious candidates for electronic assistance through workflow technology.

To illustrate this complexity, we shall briefly describe the role of the Launch Cell and the Sampling. The field handling, the collection of data and the result processing are some other elements of this application's complexity, but shall not be described in this document.

There is permanently an information exchange between the market researcher and the Launch manager. For each modification, the request is redistributed to various receivers. The modifications and their dates are indicated in the headers. Records of all changes must be kept.

All the information is strengthened in a main document called Launch request. Exhibits, usually added by the market research manager (e.g.: a table containing a quota definition, ...) are attached to this document.

There may be several types of modifications concerning the Launch request:

- Planning modification
- Modification of the collection type (paper vs. CAPI)
- Modification of the sending type
- Briefing (added or suppressed)
- Intermediate Return
- Modification of the quantity of interviews (goal)
- Target modification
- Quotas modification
- Modified or additional Information for the Sampling (file)

10. Quotation (drawn up afterwards or modified).

The team in charge of the Sampling receives the launch request. It does not intervene at this time on the application, but it must nevertheless indicate any change related to its activity field (e.g: quotas definition, files). These are basic elements, since they enable to check the consistency between the market research manager's request and the quotation (or a former study, which serves as a reference).

Example concerning the Sampling, which may be changed:

- Sphere of survey
- Interviewed person
- Inquiry method
- Variables and practical details
- Use of inquiry bases and various problems linked to their use
- Realization dates (sending date for the face-to-face survey and field date for the telephone survey).

When it is necessary to purchase survey bases in order to perform the surveys, one ought to check that these costs are included in the quotation. If available, the person responsible for the quotation, or else, the Launch team, is asked to carry out this verification. If need be, the market research manager is informed of the price differential and his agreement is requested.

In the case of complex face-to-face surveys, the method can even be corrected on the Samplings, Field or the Launch teams' initiative.

The Sampling team established the following information:

- The survey's realization goals are sent to the survey's research manager, to the Field team (telephone or face-to-face, according to the method of survey), and to the Collection team
- Geographic matrix objectives
- The quota list is sent to the Launch team, to the research manager, and to the face-to-face Field team
- Exhibits are sent to the Field team
- The survey bases are sent to the Collection team
- The record drawing(s) are sent to the Collection team
- The adjustment goals are sent to the research manager.

Binary management Interface

The intranet interface of the workflow project consists, in broad outline, in two accessible boxes via a unique login identification (one of the requirements in order to slow down the codes access to the applications). A first box manages all the tasks to be executed for an interlocutor into the survey production process, whereas the second box contains the thesaurus of all works in which it is possible to find the complete electronic file of the survey (together with collected data and forms). There is no indexation process strictly speaking; research can be made through the number of the file or the customer's name at any time.

User Interface

The application interface was designed and refined together with the user, with the following goals:

- Keep it as simple as possible,
- Tailor it to users working conditions,
- Maximize users' efficiency, and
- Automate controls as far as possible.

The resulting implementation combines in a single application features that more complex workflow applications do not always provide together like:

- Mix of query-based and work list-based interface to deal with frequent unexpected events that modify the expected flow for a study.
- A work list handler interface tuned to users roles for usability,
- Next activity automatic delivery for efficiency,
- Selective activity and collections of activities execution for efficient "batching" of actions,
- Many tailored controls on fields values data entry in forms for quality of data,
- A query-based follow-up interface accessible to users for self control, and
- A non-intrusive notification based on the use of colors.

These characteristics were essential for acceptability by users, as well as the productivity gains observed. We present them shortly in the following section as an example of the level of adaptation to users requirement that Taylor Nelson Sofres was able to provide with the selected Internet based workflow engine.

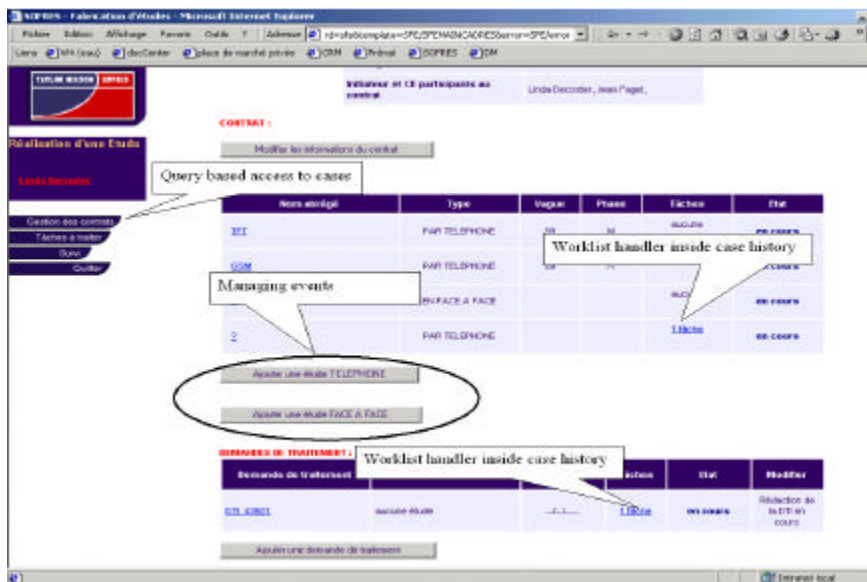


Figure 2. Mix of query-based and work list-based interface to deal with frequent unexpected events

Unexpected process modifications must often be performed during the surveys. This is an interface's native functionality, and most actions meant to modify a survey's progress are triggered from the record windows.

These actions trigger sub-processes, independent branches or exceptions of the main process. This is a simple and ergonomic implementation of a "factual" workflow, which is completely under the users' control, as opposed to a "procedural" workflow, which requires an operative mode for each work list.

Work list handler interface tuned to users roles

The user interface was designed to be as simple as possible through tailoring to each user's working environment and roles played. It separates the browser window into a left and a right pane.

On the left pane are presented:

- The connected user's identification and unit, and
- A menu of options representing process creation command, process follow-up command or work lists display commands.

On the right pane are presented:

- A tabulated and sorted list of activities, or
- The form representing an activity interface, or
- The result of a search command.
- The next figure shows an example of the work list.

Figure 3: example of work list handler for the market researcher

Dealing with complex forms, capability to suspend activities

A survey's full description contains hundreds of pieces of information. Each form can be filled-in in any order. You can suspend this

operation at any time, and save without publishing the information you entered.

Figure 4: Complex form combining structured and free information mode

Electronic forms, and printed output

Special attention was given to forms definition and presentation with strict controls on data entered. Forms were created using Dreamweaver for layout, and JavaScript for fields and forms level controls. Whenever possible, the appearance of existing paper forms was kept in order to minimize adaptation time.

Generating automatically all a survey's representative states in Word allows you to get a quality print on request.

PROJECT MANAGEMENT

The project management represented 3 steps:

- Establishing the Specifications
- Prototyping
- Realization

Specifications

From the beginning, this project was seen as a very important one (Sofres' biggest computer investment during the last few years) and a very structuring one.

A full specifications document was created, assisted by Martin Ader, of W&GS, a worldwide domain expert (www.wngs.com)

Martin Ader's assistance was to define the processes, express the needs, establish the specifications and choose the tools, and to increase the senior management's awareness.

Prototyping: User-Centric Project Management

The W4 product was chosen at the beginning of the prototyping phase, which was conducted with a total cooperation with a piloting comity made up of 10 persons (research managers and production representatives).

The iterative method recommended by W4, which enables to iterate successive prototypes, was implemented, and allowed to focus the needs expressed by the piloting comity, as well as the developments, towards the W4 tool.

The prototyping phase was conducted directly with users. An HTML-based interface was tuned to users' work context and user training was based essentially on the process characteristics rather than the technology itself.

The prototype goal was to validate a more general approach to work-flow-enabling processing on a significant basis. It was conducted in that spirit under severe constraints and has concluded positively both in terms of provided benefits and in terms of quality increase.

Besides verifying the above capacities, the prototype had to answer to some critical concerns before any further generalization towards exceptional events management:

- Ease of people migration from a traditional paper-based and host transaction-based working environment to an Intranet-based workflow application,
- Acceptability by Taylor Nelson Sofres employees of a workflow paradigm,
- Positive impact on quality of service and productivity; and
- Taylor Nelson Sofres' capability to master the assembled technologies with a reasonable cost of operation, deployment, and administration.
- Within two months, the process and the interfaces had been validated and developed, and the users had appropriated the application, mostly because they were totally involved as a proposition force.

The prototype was validated at the end of December 1999, and Taylor Nelson Sofres General Manager agreed to start the development process, completed in April 2000.

Realization and deployment

The workflow application was prototyped in two months time, from September 1999 to December 2000, and developed and qualified in

three additional months, from March 2000 to May 2000. It has then been deployed within 6 weeks to 400 participants.

Since September 2000, 1200 surveys have been handled through the workflow solution, which is now the backbone of SOFRES' information system.

The prototyping phase involved a group of 10 representatives of the users, coming from the surveys and the production management units. For a few weeks, meetings were devoted to the analysis of the process, supported by possible on-screen examples.

Between meetings, the prototype was updated and installed on Taylor Nelson Sofres' Intranet. This gave each participant the potential to experiment the proposed application, thus increasing its evaluation and evolution.

This collaborative design phase, supported by prototyping of the application accessible on the Intranet, has been essential to the whole project success. Members' participation was active and intensive.

They appreciated both the power delivered and the interface flexibility. The workflow is available through an enterprise portal. They log in and find all the relevant information for their activity. Using this personalized portal, they have a direct access to their own entry point, customized according to their profile. Through highly customized menus, they are able to find all relevant information in a FAQ database, a glossary, flash demonstrations, etc., all items related to their own business. Additionally, on the enterprise portal dedicated to the workflow, a test application is on line where users can train themselves on the workflow process.

OVERALL BUSINESS INNOVATION

The main innovations concern:

- The managed process' complexity, and
- The use of a workflow solution as the backbone of an information system.

The Process Complexity

More than 200 steps, more than 1,000 variables, a huge need for flexibility since it is possible to re-define at any time the survey's contents and progress, and a very high human added value that must be preserved: this application is probably one of the most complex ever developed by a workflow product.

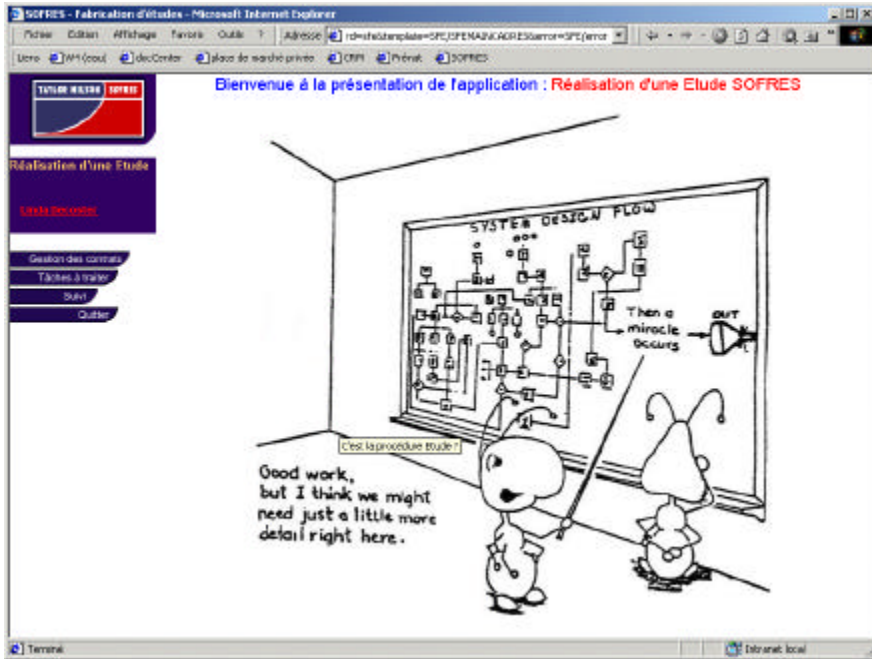
W4 not only proved its ability to support such a complex process, it also allowed Sofres organizational employees to master it and make it evolve.

Using the workflow as the backbone of an information system

Sofres' ambition was to build a consistent information system on all the existing management and production applications.

Using a workflow solution to federate applications, to help integrate applications, and to urbanize the information system, was a very innovating approach. This goal was more than achieved, since the workflow product also gives a structuring dimension, and modifies the working habits.

BUSINESS BENEFITS



This image, used to welcome users, became the symbol of workflow for Sofres. It sums up all the benefits workflow brought to Sofres.

The expected increase of quality of service was achieved. In addition, the workflow application resulted into fewer errors at the operation definition level, and suppression of errors in orientation to the right service for further processing.

By suppressing all physical transfer between services, and reducing operation entry errors and orientation errors, the application provides productivity gains representing an average of four minutes of working time per process. The combined effects of tangible productivity gains, and low development and deployment costs, result in a positive time to market: top quality, tracking, state-of-the-art, users' satisfaction and total acceptance.

Cost savings

Time saved per process come from several sources:

- Savings in document handling (in between paper folders transfer, distributing documents to participants);

- Savings in time required to fill in documents through assisted data entry;
- Reducing codification and orientation errors, and consequently additional activities;
- Easy answer to customer inquiries through process follow-up tools.

COMPETITIVE ADVANTAGES GAINED AND FUTURE PLANS

Workflow-based exception events processing has been clearly identified as one of the potential sources of progresses of both productivity and quality of services, as well as a perfect tool to maintain service efficiency in a geographically distributed organization.

The workflow application has demonstrated the capability to develop and deploy rapidly and economically workflow enabled processes over a large number of participants. The acceptability of the technology by Taylor Nelson Sofres employees was demonstrated successfully.

This will form the basis of further extensions of workflow applications. Resources applied to those strategic projects will then become available to fully exploit the know-how acquired through a successful real size project and deployment of even most complex procedures.