Software Product Description

AMI Enterprise Intelligence v6.0

SPD-AMIEI-60 v1.0

September 2011

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1 Preamble

This document forms version 1.0 of the functional description of the **AMI Enterprise Intelligence version 6.0** product (ref: SPD-AMIEI-60 version 1.0). It may be supplemented by other components called "AMI Trade Packs", which form the subject of a separate functional description.

2 Approvals

Approved by	Role	Date
Alain Beauvieux	Managing Director, Sales & Marketing	29 April 2011
Eric Fourboul	Managing Director, Products & Developments	29 April 2011

3 Presentation

AMI Enterprise Intelligence™ is a *software platform*, based on innovative technology that enables the acquisition, analysis and distribution of specific content from external or internal documentary sources. It is based on the AMI kernel.

As a modular suite, **AMI Enterprise Intelligence** allows solutions to be created that are adapted and optimised for the issues specific to certain trades, ranging from monitoring over the Internet from an economic intelligence perspective to the monitoring of image or e-reputation through the development of knowledge bases and internal company content corresponding to knowledge management projects. This capacity to manage multiple needs is at the core of the business intelligence projects for which AMI Enterprise Intelligence was designed.

The AMI Enterprise Intelligence platform is available in two versions that are fully compatible:

- ✓ AMI "Standard Edition". This version includes all of the key modules which allow the stages of collecting, accumulating, analysing and distributing information to be managed online. It is ideally suited to departmental projects.
- ✓ AMI "Enterprise Intelligence". In addition to the modules in the standard edition, this version is aimed at more global deployments, taking into account several departments or trades, greater volumes, and a more complete integration in the business information system.

Several "trade packs" are also available to meet the specific needs of different business departments: Strategy, Marketing, Communication, Sales, Research & Development, etc.

3.1 Key benefits

AMI Enterprise Intelligence, coupled with the **AMI Base Server** kernel, provides a certain number of advantages that make it a solution that delivers major added value to the company.

3.1.1 Key functional benefits

Modular and complementary software with a broad range of functionality

AMI EI modules are independent, complementary and communicate with each other. Brought together as a package, they form a complete functional chain suited to the needs of the company. These modules enable AMI EI to cover all identified functional requirements.

A Company Memory

AMI Enterprise Intelligence is built around a database that allows it to accumulate documents that have been selected in an organised and controlled manner.

This database, called the Company Memory, constitutes an important stock of data. As the software is used, information is correlated, knowledge stored several months or years ago can be found and the program becomes a real space for sharing knowledge and information.

This Company Memory gradually becomes one of the key elements of the intangible capital of the company or organisation that owns it.

Complete and instantaneously available dashboards

With its horizontal display by module, MyAMI is a dynamic workspace that can be configured according to the user's needs and rights. Users can customise the layout of the dashboard or the personalised newsletters for their personal use or even for third parties (subscribers, management, etc.). The publication of documents validated by monitors and experts through RSS feeds or directly in the classification scheme enables total integration in a portal or for the attention of a wide audience.

Source coverage

The sources covered by **AMI EI** may be external (industry websites, competitor websites, blogs, forums, technical discussion groups, social networks, news threads, etc.), or internal to the company (company portals or content management systems, internal forums or messaging systems, databases, etc.).

Almost all sources with their own search interface (engine, form, etc.) are analysed using a module based on a technology developed by AMI Software: the *Generic Connector*.

Easy integration

The **AMI EI** connectors also provide access to most of the software applications on the market (GED, CMS, SGBD, etc.). The data flow (queries, results, etc.) is generated in XML format and is easily used by other platforms.

Multiple acquisitions

During document collection, **AMI EI** automatically performs *deduplication*, extracts key terms and identifies key quotes that relate to the query or more generally to the text itself. These elements, along with other data (author, source, score, trends, etc.), may then be distributed in the form of news feeds or emails to specific users.

In particular, deduplication is a major feature which considerably enhances the efficiency and productivity for the company.

AMI EI also allows multiple acquisitions: via web browsing, via a reader that enables real-time monitoring or via a meta-engine, a single point of access to all sources.

Help with publication

The tool that allows the monitor or the expert to publish the collected information provides numerous functions to make this task easier, such as:

- ✓ Multiple document selection
- ✓ Mass document validation
- ✓ Facilitated reading feature
- ✓ Display of documents and their properties from many angles
- ✓ Programming of *rules* that enable the automation of all or part of this work

Multilingualism and natural language

AMI technology is compatible with UTF-8 (encoding format defined for Unicode characters), which means that queries can be run and documents processed, as a minimum, in all languages. It is therefore possible to submit queries in Japanese, Korean or Farsi.

In addition, the so-called linguistic processing of the document signature, used in particular for concept detection and analysis functions, can be carried out in French, English, German, Italian, Dutch, Spanish, Portuguese and optionally in Arabic or Russian.

Management of rights for users and groups

AMI EI has an administration module which allows administrators to manage users and groups on 6 levels, and allocate any type of right.

3.1.2 Key technical benefits

Object model open and documented

AMI EI can be supplemented by new functions through the implementation of document processing functions accessible via the albScript language, documented in the programming guide (SDK).

Patented technology

The **AMI Enterprise Intelligence** kernel is based on patented technology, **Automatic Meaning Interpreter** (AMI). A fully automated operation, AMI allows users to analyse and index information using an original *document signature* model.

Offering a level of performance that is clearly a cut above that of Boolean indexes, AMI incorporates linguistic modules in the languages mentioned above and is enhanced by a thesaurus when one is available.

Customisable user interface

The user interface of the **AMI EI** web modules can be customised for integration into a website or a company portal.

Exemplary scalability capacity

The architecture of AMI EI allows users to compare several source servers which are accessed by the AMI EI application for research and collection purposes.

4 The AMI Base Server kernel

The **AMI** (Automatic Meaning Interpreter) kernel is a set of programs accessible by the **AMI EI** web interface. It includes the essentials of the AMI Software technology:

- ✓ Advanced linguistic functions, in particular signature calculation and research and relevance calculation functions
- ✓ Indexing programs and implementation of connectors and descriptors

The **AMI** kernel is distributed as an independent package, **AMI Base Server**, which can be installed separately in order to operate with other AMI Software applications.

4.1 The components

4.1.1 The Searcher

The *Searcher* is the service responsible for interfacing with the client module. It provides functions for amalgamating the search and analysing the queries and the results obtained.

It is the sole point of access between the various sources and the advanced query functions.

4.1.2 The Indexer

The *Indexer* is the system for indexing and querying the index. It boasts indexing and search functions for documents in everyday language.

The *Indexer* and *Synchroniser* are the indexing tools that supply the index tables.

- ✓ The Indexer is the mechanism for active AMI indexing. It can cover many addresses and update an existing reverse index. It is active to the extent that it actively performs the indexing of documents while the user runs them.
- ✓ The Synchroniser is the passive indexing component of AMI. It is a service placed on an http server. It allows the index to be easily updated by the submission of one or more documents for indexing.

4.2 Advanced functions

4.2.1 Linguistic functions

The advanced linguistic functions of AMI EI considerably improve the relevance of the searches in all of the languages covered.

It is partly based on the patented g-MIL technology (generation of markers independent of language), which is at the heart of the principle behind the signature calculation for **AMI** products.

4.2.1.1 Document signature

The majority of software applications processing textual data rely only on Boolean indexing, i.e. the construction of a matrix of terms in a corpus and their position in the documents.

AMI technology introduces a new paradigm constructed around the concept of document signature. In addition to Boolean indexing, AMI builds a tree structure that expresses the greater or lesser significance of a term in a document under consideration.

This approach is somewhat similar to the approach of a researcher who, with the help of highlighters, underlines the key expressions in a document.

The aim of the *signature* concept is two-fold:

- ✓ To be able to calculate, manipulate and store digital information that actually represents the sense of a text
- ✓ To enable this signature to vary from a simple list of terms through to a set of prioritised information that is rich and complex, depending on the environment, the user, etc.

Thus, by comparing the signatures, the user can work out the distance, in terms of meaning, between two texts. The more complex the two signatures are, the more accurate the meaning, and therefore the distance, will be. It is of course possible to measure the distance between a simple signature and a complex signature, but in this case the accuracy of the result will not be so reliable.

The signature concept is at the base of the linguistic functions of the **AMI** kernel.

4.2.1.2 Calculating relevance

The *relevance* is a score (between 1 and 100) measuring the "value" of an indexed document in terms of the user's query.

It is calculated by comparing the signatures of the query and the document.

In the "Collect" module, the user has the option of setting a *relevance threshold* and removing documents with a relevance value that is lower than this threshold from the collection space.

4.2.1.3 Recognising the query language

Various algorithms, based on the morphology of the language allow the user's query language to be recognised. A recognition reliability score is awarded. The query language must be recognised in order for hypotheses for customised searches to be formulated.

4.2.1.4 Spelling tolerance

The **AMI** kernel is tolerant of *spelling variants* for terms used in the queries.

When the sources are queried, the encountered variants are added to the hypotheses generated.

This function is particularly useful for collecting sources of information where spelling is sometimes neglected, e.g. in forums.

4.2.1.5 Managing synonyms

The AMI kernel takes into account the management of multi-word synonyms and acronyms.

In addition, it is possible to allocate a trust level to the synonyms. These synonyms are used during the generation of different hypotheses based on the users' queries.

4.2.1.6 Deduplicating documents

AMI EI evaluates the similarities between the documents collected, within a subject, and automatically *removes duplicates* of these documents: for a given subject, information that is present in two documents will only be represented once, even if the layout changes or if the vocabulary used is slightly different. This algorithm is based on the use of document signatures, giving it a very high level of performance.

The deduplication threshold can be configured by the platform administrator.

4.2.1.7 Extracting quotes

The most representative quotes in the document are extracted and automatically stored to help the user read the results. This extraction is based on the capacity of the **AMI** kernel to distinguish between what is essential in a text and what is of secondary importance. This function uses the signature calculation.

Contextual key quotes

In order to make it easier to read the results, the key quotes that contain the conditional terms (weak or strong) are shown.

This function is only available for Publication/Consultation operations.

4.2.1.8 Identifying trends

Trends are the key words or expressions that are relevant and appear in a recurring manner in the indexed documents.

They are available in the statistical analysis tools of the "Analyse" module and in the search results of the "Search" module.

They can form the subject of a specific configuration using administration functions.

4.2.1.9 Automatic learning

The knowledge base is administered and expanded by the dedicated administration module (section 5.2.2.4). It can also be expanded by a learning process, which can be activated optionally, and which records the vocabulary characteristic of the subject that is being processed during collection.

This vocabulary can then be used to remove uncertainty of meaning from the terms in the queries, which is particularly useful in the AMI Search module.

4.2.2 Generic connector

The generic connector is a (HTTP/XML) protocol, which plays the role of a logical connector. It enables external tool integration (external search engines, access to Intranet searches, databases, etc.) in a transparent way for the architecture.

5 AMI EI Standard Edition

5.1 Introduction

This version includes all of the key AMI Enterprise Intelligence modules which manage the acquisition, accumulation, analysis and distribution stages. It is aimed in particular at a department or a monitoring unit wishing to centralise the management and deployment of the software.

5.2 Administration functions

5.2.1 Prior physical installation

The physical installation of **AMI EI** involves the following two steps:

- ✓ Installing the AMI Base Server, the technological kernel on which the applications are based
- ✓ Installing the modules selected according to functional needs, e.g. AMI Collect, Search, Analyze, Organize, Contribute, Capture, My AMI and Share.

Installation is carried out once for everything on the server; installation is not necessary for client workstations.

5.2.2 Administration interface

AMI Enterprise Intelligence provides a comprehensive supervision and administration web interface for managing the installation and configuration.

The following functions can also be accessed via the administration interface:

- ✓ Source management
- ✓ Administration of users and groups
- ✓ Administration of knowledge bases

5.2.2.1 Source management

Sources can be either external or internal. External sources are mainly accessible via the Internet. These sources are always very varied. They could be:

- ✓ Databases
- ✓ Mailing lists
- ✓ Data feeds
- ✓ Forums, newsgroups, blogs, wikis
- ✓ External search engines
- ✓ Websites and portals, etc.

Internal sources include Intranets, file systems, company databases or messaging systems, and can contain any type of document: internal post, client files, etc.

Other sources, in particular from Web 2.0, are available with the corresponding "trade" packs.

Sources are globally administered and allocated to all or some users. They are organised in such a way that the user can go to an ordered list and select the sources that they wish to monitor as part of their scenario. For the user, a source is simply a source of information; technically, there is a distinction, as discussed below.

5.2.2.1.1 Source classification

There are two types of source:

- ✓ **Sources that AMI indexes**: in this first case, AMI analyses the source (most likely a website) and detects new or modified documents at regular intervals
- ✓ **Sources that AMI searches**: in this case, the website provides a search mechanism, which AMI uses to find relevant documents. It is therefore initially the site that chooses which documents are returned and then AMI searches these documents to distinguish between the new ones and to give them a relevance index.

To cope with this diversity, **AMI EI** has a unique search interface, based on the *site descriptor* and *connector* concepts.

Attributes

The view per source is often necessary but sometimes restrictive. If some search queries take a specific source into account (e.g. "I'm looking for such and such information on such and such website"), others may concern sets of sources, which it is better to describe functionally (e.g. "I'm looking for such and such information on institutional sites, such and such on technical databases, etc.).

This is why **AMI EI** groups the sources together into logical sets – one source can belong to one or more sets. The principle proposed is two-fold:

- ✓ The first part involves labelling each source with one or more attributes (discussed in more detail below)
- ✓ The second part involves grouping into logical sets called *Bookmarks* (discussed in more detail below).

Source properties

The sources accessible via the Internet have varied characteristics linked to the different Web technologies: protocols, conventions, languages, etc. **AMI EI** can be connected to any type of source and provides an interface for specifying the number of these parameters and a set of directives to optimise the analysis of a site.

Site descriptors

When a source is particularly complex, other even more refined instructions can be given using *site descriptors*.

The site descriptor mechanism provides a way of addressing the questions that other systems were not able to address, such as: access to "pop-up" pages, processing Java scripts, optimising "crawl" performances, etc.

The descriptor is an enhancement, which is not necessary in many cases: when the source is created, the capture form is used to declare the elements that are necessary and sufficient to manage it through AMI EI 6.0.

Connectors

The connectors are intended *for sources that are searched*. For the more common ones, AMI EI suggests a connection to:

- ✓ Remote search engines, e.g. Yahoo!
- ✓ The AMI engine: the Indexer
- ✓ The generic connector, described later on (4.2.2), which provides access to any source providing a search method (form, language, protocol, etc.)

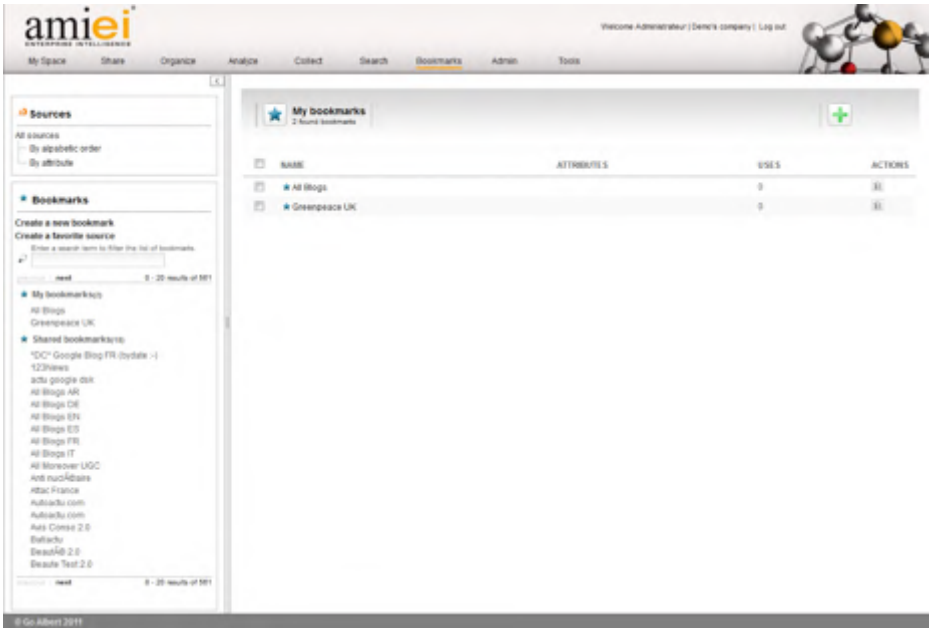
In both cases, the AMI Search and AMI Collect modules access the information sources by searching them, whether this searching option is native to the site or implemented with AMI.

Finally, some sources require the implementation of specific procedures that allow documents which are hardest to access to be captured and indexed by the Synchroniser.

5.2.2.2 Managing bookmarks

The sources are not used directly by monitors or experts: they must be grouped into what AMI calls **bookmarks**.

The searches and collections then refer to the bookmarks.



AMI Enterprise Intelligence version 6.0 therefore produces a clear distinction between the roles:

- ✓ Of those who are responsible for the sources

  The user's task is to identify them, understand them and then determine the best strategy for connection before selecting the AMI tools that are best suited to their integration.

- ✓ Of those that use them

  The user focuses on their work as monitor or expert, organises sources into logical sets, selects a name for them, attributes a comment and tags. They do not need to worry about URLs, links or RSS feed.

  If an organisation wants to merge these two roles, it can do so easily. Others will allocate the first tasks to administrators or group managers, and the second tasks to monitors and experts.

  This organisation also provides a means of controlling the access to sources and therefore to documents, in particular when these have legal usage constraints (copyrights, paying access), by only reserving this means for users who have the right to consult these documents.

5.2.2.3 Administration of users and groups

Profiles

There are four types of profile:

- ✓ Administrator: this is the profile with the most rights on the platform: installation, configuration, user management, knowledge bases, source servers, etc.
- ✓ Expert: this profile provides access to all the application functions of the platform: management of sources, Collect Maps, classification, all of the analysis and distribution functions.
- ✓ Monitor: this profile provides access to the main functions of the application in a simplified manner through the use of dashboards (My Space).
- ✓ Guest: this profile is intended for "consumers" of information and analyses. They can display the dashboards created by the experts or monitors and have the option to customise them.

In the context of these profiles, it is possible to specify the roles and rights of certain users using the predefined categories available in the platform:

The user categories that can be administered are:

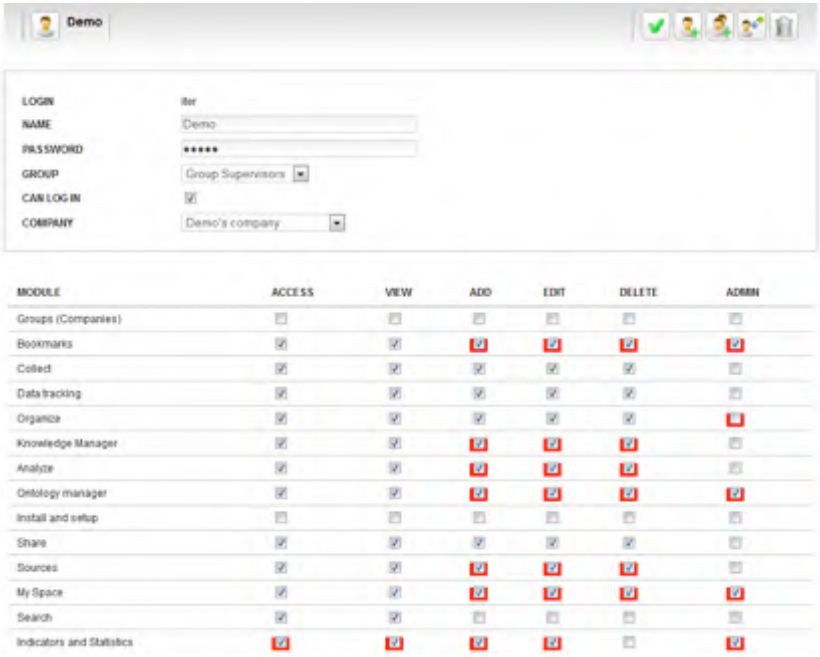
- ✓ ***Root administrators***, who have the right to do anything
- ✓ ***Administrators***, who have the most rights for the functional management of the platform
- ✓ ***Group Supervisors***, intended to manage a team of participants such as the group of monitors in the Marketing department or the Research department
- ✓ ***Analysts***, members of these groups who can manage the collections, publications and analyses
- ✓ ***Users/monitors***, members of these groups

- ✓ ***Contributors***, intended to participate in the cycle of information by providing contributions to the content
- ✓ ***Guests***, users who only have the rights to view the documents or analyses published by other users. These are the "consumers" of the information.

The first two are "system" administrator categories, and the three others are "trade" user categories.

The supervisor can control each group and user's access to the main **AMI EI** functions according to what modules they can access. This access control concerns the user's rights to the module: read, write, update.

It is therefore possible to customise the **AMI EI** application in detail, depending on the specific functional constraints.

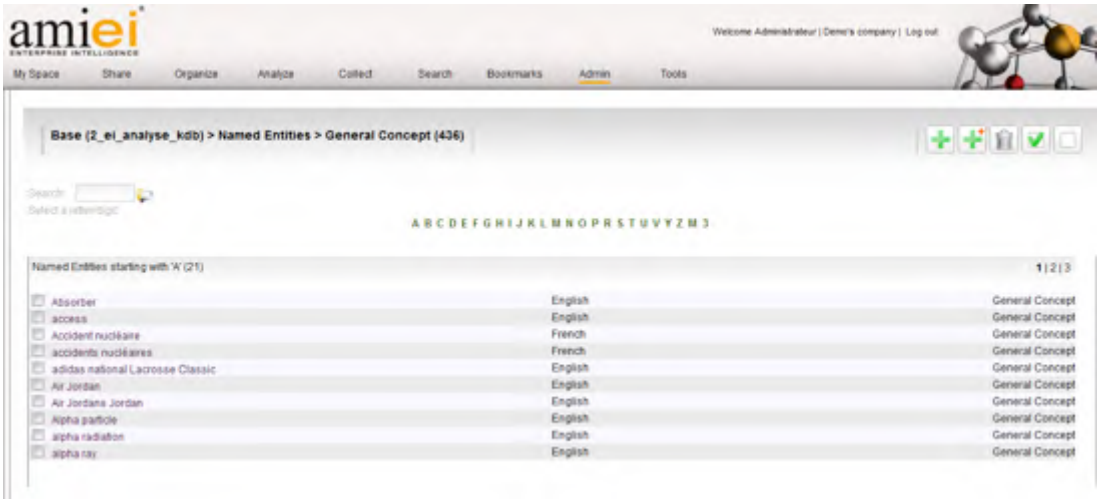


5.2.2.4 Knowledge base administration

The knowledge base can be populated by an automated learning process, which can be disabled.

In addition, the administration interface provides a module for controlling the content, in particular:

- ✓ Managing the synonymy functions
- ✓ Integrating the thesaurus elements, which are not obligatory but can be integrated if they are available
- ✓ Controlling the behaviour of search functions



5.2.2.5 Attribute management

AMI Enterprise Intelligence provides a vast panel of metadata for qualifying the nature of the document, in particular the source, the dates of the life cycle of the document, the status, trust level, etc.

These metadata are the keys for filtering and analysing which then enable the construction of partial views of the database.

It is sometimes useful for an analyst to have access to their own sets of metadata, which are linked to a particular context. The "document attributes" function provided by AMI EI 6.0 gives an expert the option of adding as much metadata as they want, making it a powerful system of attributes without limit.

These attributes can then be used to qualify the sources and/or the documents.

The analyst's work is therefore made easier as each set of metadata represents as many potential analysis axes as possible.

For example, if the analyst is interested in the department where the contributors came from, they will want to have a set of metadata with the value corresponding to that of the organisation of their company, e.g. "legal, sales, marketing, etc." This could also come with a set of metadata that defines the hierarchy of the company and how long it has been in existence, etc. The control rules can be associated with each of these sets of metadata, ensuring the processed elements are coherent.

In addition, it is possible to generate particular statistics for each metadata set created.

5.3 Acquiring information: collect, search, contribute, capture, consult

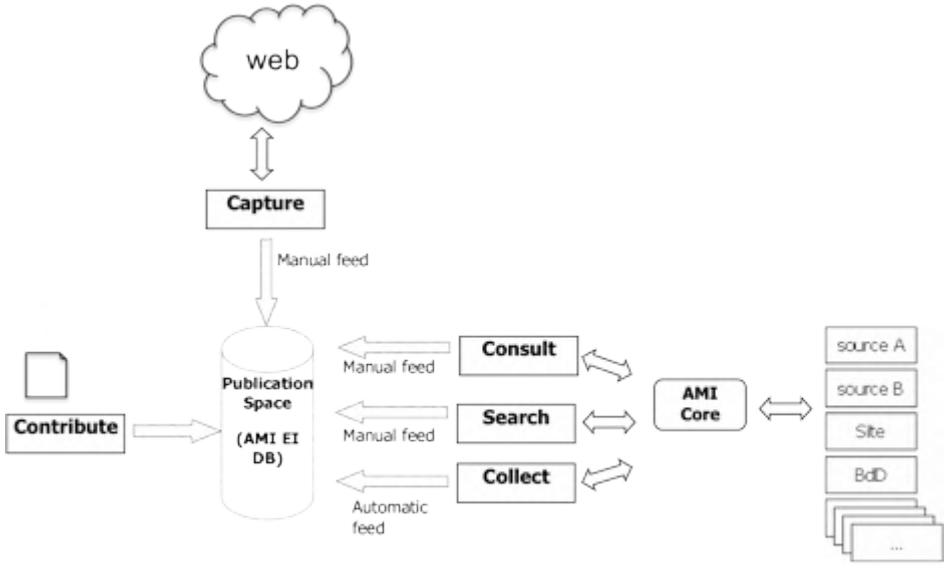
5.3.1 Principles for acquiring information "online"

The first main category of functions in an enterprise intelligence system is linked to the acquisition of information that is then organised and processed.

AMI EI 6.0 has five modules and functions for the acquisition of information:

- ✓ Automated data collection technology for recurring monitoring operations for the purpose of accumulating information
- ✓ An engine for one-off searches that can be accumulated
- ✓ A module for promoting contributions from the software users
- ✓ A module for capturing and accumulating information by surfing the web
- ✓ A function for consulting the information of a source in real time and only accumulating the information selected in the feed by the user

Diagram showing acquisition principles:



The **AMI EI** Collect and Search functions enable users to search for huge amounts of data in sources available on the platform:

- ✓ The Collect function is an automated operation that systematically skims through sources at a determined rate.
- ✓ The Collect configuration, i.e. the details of the operations to be carried out, is specified in a Collect Map, also known as the Monitoring Map.
- ✓ The Collect function is managed by the Collect module, which is used to capture the Collect Map and which automatically carries out the following operations:
  - ⇒ Collection at the frequency specified according to the Collect Map
  - ⇒ Detection of new information

⇒ Deduplication of document content

⇒ Generation of an XML feed showing the results of the collection

⇒ Notification by e-mail of subscribers

The XML feed is sent to the Publication space of the Organize module, if it exists. The Subscribers are specified in the Collect Map.

✓ The Search function is a manual operation for querying the meta-engine of the AMI core, in the same way as a common search engine but with advanced core functions.

It is managed by the Search module. This module queries the same sources as the Collect module.

The Search results are also presented in the same way as a common search engine.

These results can then be selected, altogether or just some of them, and sent to the Publication space if there is one (see above).

"Consult", "Contribute" and "Capture" are manual operations that allow a user to add to the AMI EI 6.0 database on a case-by-case basis:

✓ The Consult function allows the user to follow the information sources in real time and only store the relevant information

✓ The Contribute function allows the user to record the documents that the user has written or has at their disposal

✓ The Capture function is used to select a set of data (e.g. a web page or a results page) found after browsing the web and to download it to the AMI EI 6.0 database

The data is then stored in the normal format of AMI data, and in particular with the associated metadata correctly instantiated.

5.3.2 Collect module

5.3.2.1 Collect Map

The Collect Map is a tree structure that allows users to:

✓ Select the sources they want to query using the AMI automated data collection technology

✓ Configure, for each subject, the frequency of these queries and configure the criteria for selecting available documents by defining collection scenarios

The Collect Map is organised hierarchically. There are at least 3 levels in the tree structure:

✓ The *Subscribers* level

✓ The *Subjects* level

⇒ A subject is used to group together the scenarios (see below) that have a common trade logic and to specify the *frequency of the collection* for each of these scenarios.

✓ The last level is the *Scenarios* level

It is important to note that the Collect map applies to the whole application. The structure of the Collect Map has been standardised by AMI Software, in the form of a DTD in XML standard. The Collect Map can be independent of the end objective, i.e. of the organisation required for the distribution and sharing of the information, which is managed by another tree structure: the *classification*.

5.3.2.2 Scenario configuration

The configuration of a Scenario involves:

- ✓ Selecting the sources to query by selecting the bookmark(s) related to the subject
- ✓ Specifying the *activity* of this scenario (only the active scenarios will be run)
- ✓ Formulating a query

The query is formulated by imposing a *strict constraint*, a *weak constraint* or a combination of the two:

- ✓ A strict constraint is a query in Boolean language or natural language. It is very restrictive and is particularly useful when the expert already knows the specific terms they want to see (or not) in the document. For example, the name of a company could constitute a strict constraint.

  AMI's Boolean language includes the instructions AND, OR and NOT, as well as quotation marks, parenthesis and truncation. It adds an AMI operator (question mark) to the query, which instructs the system to generate variations of the same term from its knowledge base.
- ✓ A weak constraint is also a query. This is not restrictive at all and can consist of a whole paragraph. **AMI** searches for similar information. A weak constraint is useful when the user wants to gather information that resembles a known item of complex information.

  It can also be used to define an "environment", i.e. a subset of the source(s) concerned.

5.3.2.3 Performing a collection

The Collect Map is run as scheduled.

Each scenario is scanned and the queries that relate to them are analysed by calling on all of the functions of the semantic analysis of the **AMI** kernel (see the "Advanced functions" chapter above) and using the knowledge base.

The results are then processed by the **AMI** kernel to build the output stream. This stream has two objectives:

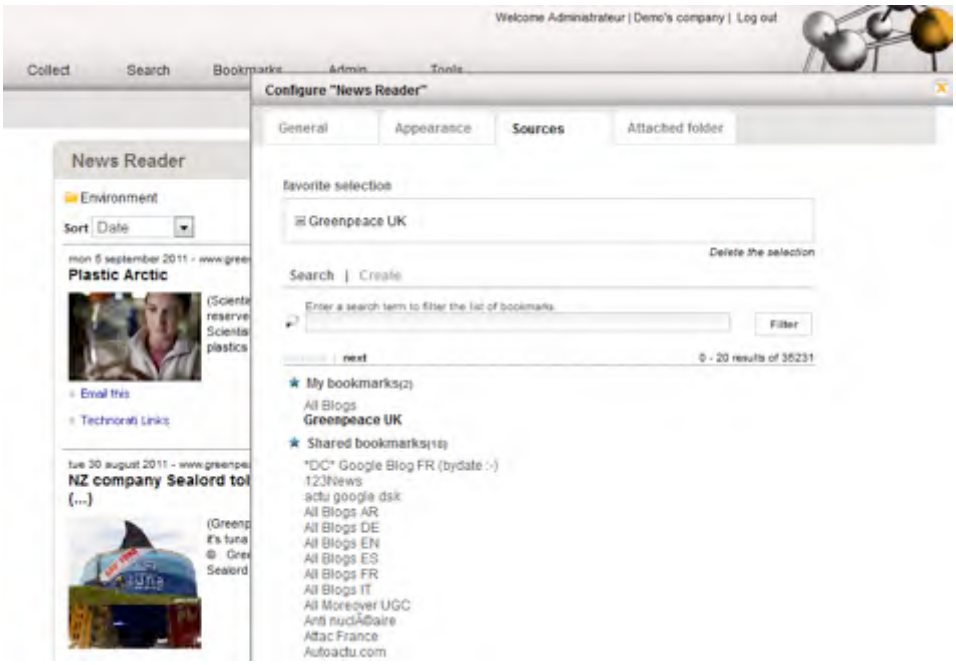
- ✓ To populate the Publication space of the "Organize" module, if it is active
- ✓ The AMI core data collection technology processes it to generate e-mail alerts to be sent to Subscribers

5.3.3 The "reader" function

For simple consulting purposes, the AMI EI version 6.0 has a *reader* function (similar to an RSS reader), which allows users to automate the consultation of new articles without having to accumulate them.

A reader is created by specifying the address (URL) or by selecting an existing source.

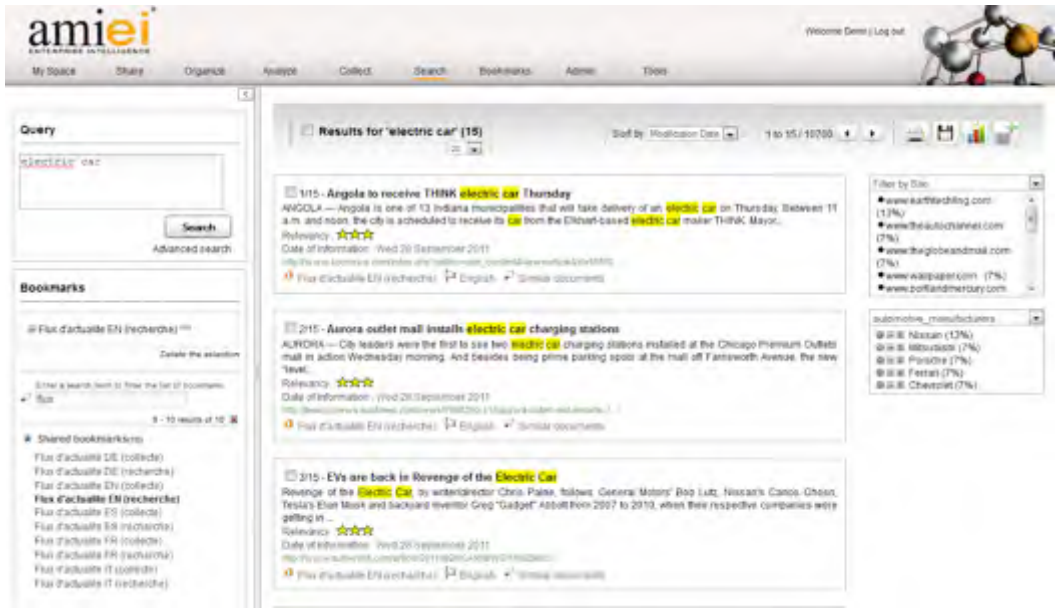
The presentation of the reader data can be customised: with a header, overview or detailed display, quantity of news items per page, font, etc.



The monitor can then simply select the documents to be accumulated by attributing them with a *relevance* index, e.g. ★★☆.

5.3.4 "Search" module

The search module enables users to perform queries on internal or external sources.



5.3.4.1 Starting a Search

A Search is performed freely, in everyday language or Boolean expressions.

On the other hand, the information sources that are queried can vary (web or not, internal or external) and are viewed in a unique manner by the module. The list of these bookmarks can however be consulted in the left-hand pane of the user interface.

In addition, queries performed on these bookmarks and the processing of the results benefit from using the advanced **AMI** functionalities.

5.3.4.2 Search results and manual population of the Publishing space

The Search results are composed of a list of documents with the following information:

- ✓ The title of the document and its source
- ✓ One or two representative quotes from the document
- ✓ A relevance score
- ✓ Words or expressions, possibly from a thesaurus, used to find the document

Many other functions can also be added, e.g. searching for similar documents, automatic classification of results (clusters), categorising the results, identifying related themes, etc.

Storing a query

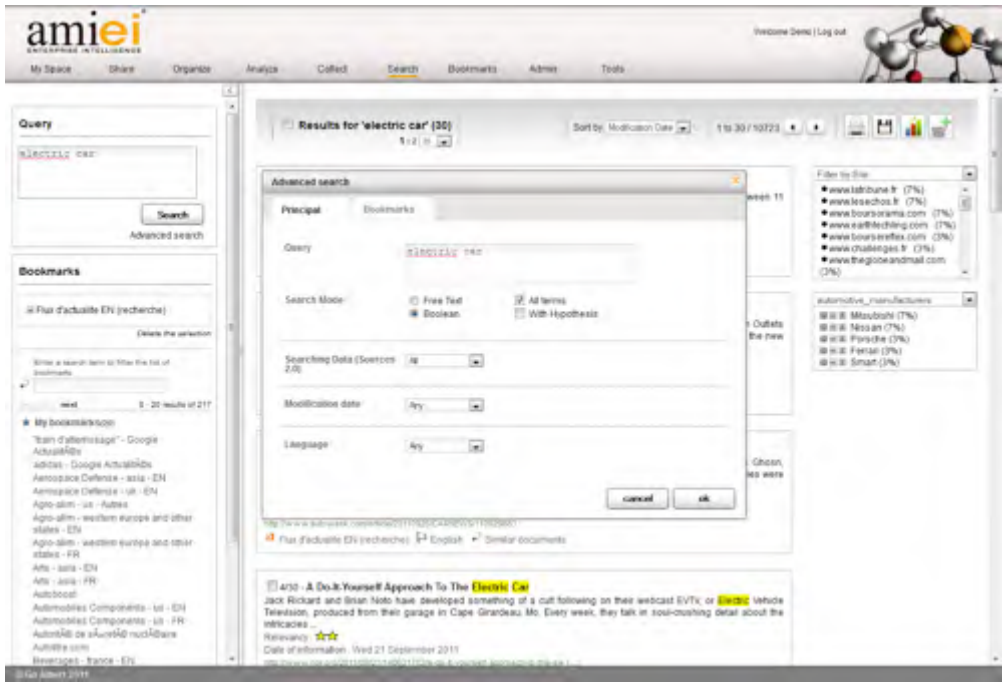
A query can be converted into a collection scenario by the AMI Collect module.

Detecting themes and named entities

AMI EI analyses all of the results of a query and identifies the key words and important expressions. These expressions make it possible to extend the original query of the user. They are characterised by the type of information that they represent, e.g. a person's name, other noun, date, general concepts.

Advanced search

There is a screen specifically for advanced searches:



5.3.5 "Contribute" module

The "Contribute" module enables users to build applications that offer the option of inserting a document into the classification without having to use the "Organize" module.

The contributors from the company or the organisation who want to keep useful information can store it in a public section of the classification. The "Contribute" module allows new information to be added in three ways:

- ✓ By entering the content directly
- ✓ By adding an existing file
- ✓ By providing a URL that links to the document to be inserted

The contents of this information can be directly published or wait to be validated, as with any other collected information.

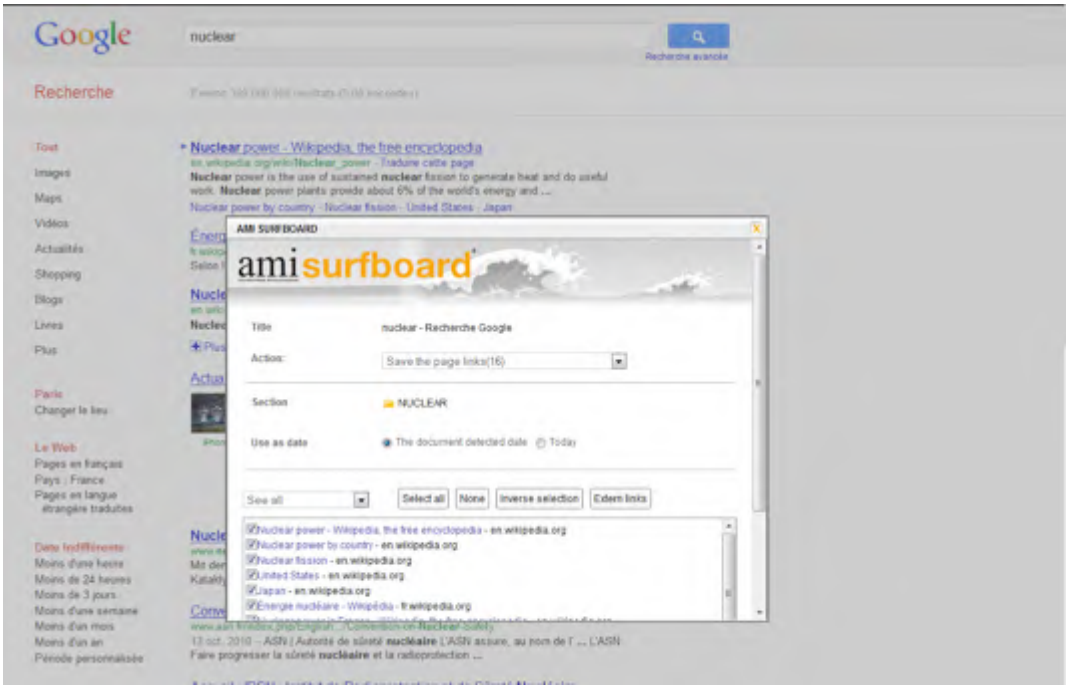
5.3.6 "Capture" module

During the monitor's search activities, they are sometimes required to surf the Internet without exactly knowing the sources of information that relate to their query.

By browsing different sites that might not necessarily be connected to AMI EI, the monitor may want to accumulate certain pages that seem relevant to their search. The "Capture" module (also called AMI Surfboard) provides the monitor with the solution by automating the process of immediately collecting, classifying and enhancing the selected page. This means that, in three clicks, one or more documents of interest are added to the relevant file in the AMI database, thereby removing the tedious task of copying and pasting. The information is sent directly from the browser to the AMI EI 6.0 application.

The "Capture" module is a valuable tool for immediately accumulating the data requested, including the comments, subset of a page or set of results of a search engine, by browsing any source or online engine (internal, external).

It therefore allows an expert to quickly construct a selection of representative data for a given topic or one that is unknown to the expert, and then analyse it at the same time in order to reveal the key trends and elements. Once this operation is complete, if the expert wants to they can decide to make this topic into a subject that is monitored by AMI EI.



5.4 Classifying and enhancing the information: organise

This module contains the publication, classification and other functions, such as the management of alerts and rules associated with document processing.

5.4.1 Publication principles

Publication is the **AMI EI** function that allows users to manage a *Publication space* in a collaborative manner, organised according to a *Classification*.

The Publication space can be populated in three ways:

- ✓ Automatically by collection, via the "Collect" module
- ✓ Manually by searching, via the "Search" module
- ✓ Manually by adding the document via the "Contribute" and "Capture" modules or the "Reader" function

The Classification is managed through the "Organize" module and is used to classify and share the documents available in the Publication space.

5.4.2 "Organize" module

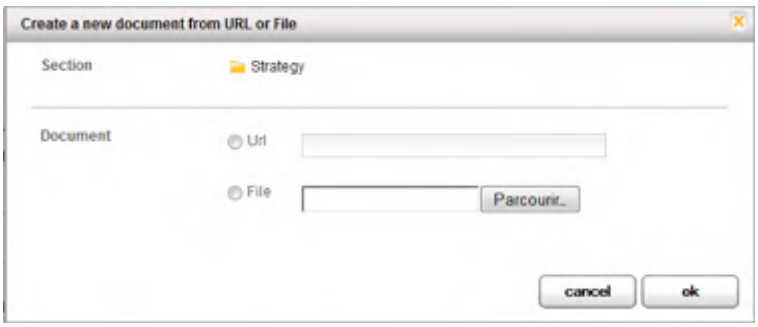
This module is made up of the "New empty document", "New document from URL or File", "Validate articles", "Classification", "Document rules", "Document attributes" and "Admin documents" functions.

5.4.2.1 "New document" function

These functions allow users to contribute to the acquisition process and to share information by providing typical documents: attitude surveys, accounts of meetings, various notes, online documents, etc.

The latter can either integrate an existing document via the "New document from URL or File" function, or create a document via the "New empty document" function.

Adding an existing document:



5.4.2.2 "Validate articles" function (publication)

This function is used to publish the documents produced by the collection process. The interface provides two methods for displaying them for validation: "Full Summaries" or "Headlines". The processing of each document allows users to:

- ✓ Identify the status of the documents from among the following:
  - ⇒ In progress
  - ⇒ Waiting for validation

⇒ Validated

⇒ Published

⇒ Refused

Only the documents with Published status can be consulted using the "Share" module, and only if the user has read rights for at least one of the sections to which the document belongs.

- ✓ Consult the original document online
- ✓ Consult and/or edit the *text image* of the document
- ✓ Add a *comment* to a document
- ✓ Consult and/or edit the *Properties* of the document, such as the Date, Relevance, Title, Comment, etc.
- ✓ Recommend the document to one or more recipients by e-mail
- ✓ Add one or more "attachments" to the document (similar to attachments added to an e-mail)
- ✓ Manually add any document to the publication space
- ✓ Automatically collect newsletters by exporting them in Office Word format

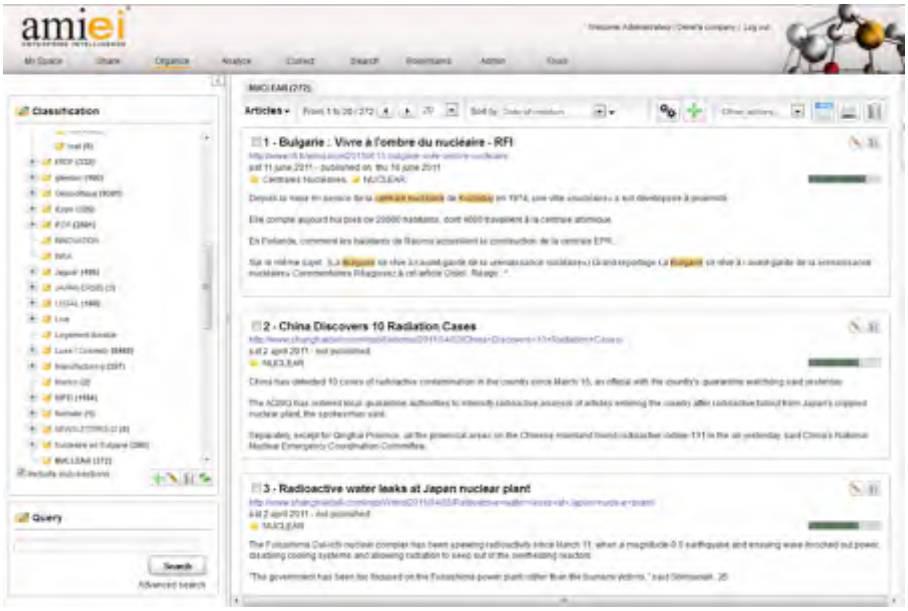
Facilitated reading

Powerful functions to help with reading provided by AMI Analyze, when it is available, highlight the sections of the text that meet certain criteria. For example, selecting the significant expressions allows the user to quickly understand the essentials of a multi-page article.

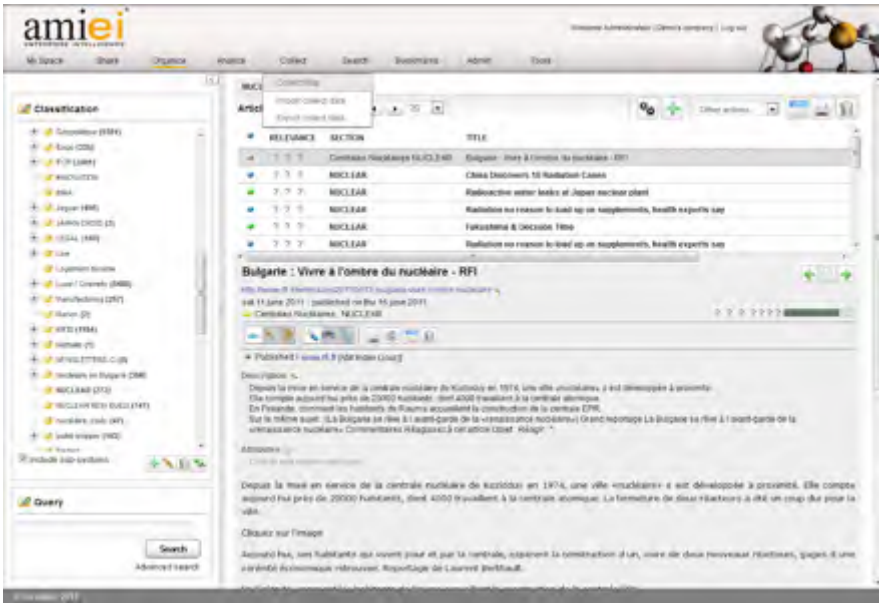
Search engine

The publication module also integrates the possibility of applying the queries to all of the documents contained in the classification. The search function can be simple or advanced, the second method allows the user to select all of the properties associated with the documents.

"*Full Summaries*":



"*Headlines*":



5.4.2.3 Synthesis

AMI Organize is used to create and manage documents known as "syntheses", which themselves make reference to other classification documents. A synthesis might bring together a set of documents and contain in the appendix elements from other modules, such as analysis or search results.

The synthesis may, like any document, be exported in a Word type format in order to create an editable newsletter.

5.4.2.4 Discussions

AMI Organize enables authorised users to comment on collected documents through a forum. It is possible to follow a discussion by subscribing to receive an e-mail each time a new comment is added.

This function is also available to AMI Share users ("Share" module).

5.4.2.5 "Search documents" function

This function enables users to perform a search in the publication space in Boolean language with the options of selecting and sorting for each document property.

Advanced search

The advanced search involves a more specific selection of documents: multi-section search, everyday or Boolean language, control of hypothesis generation, choice of dates are some of the key criteria.

5.4.2.6 "Classification"

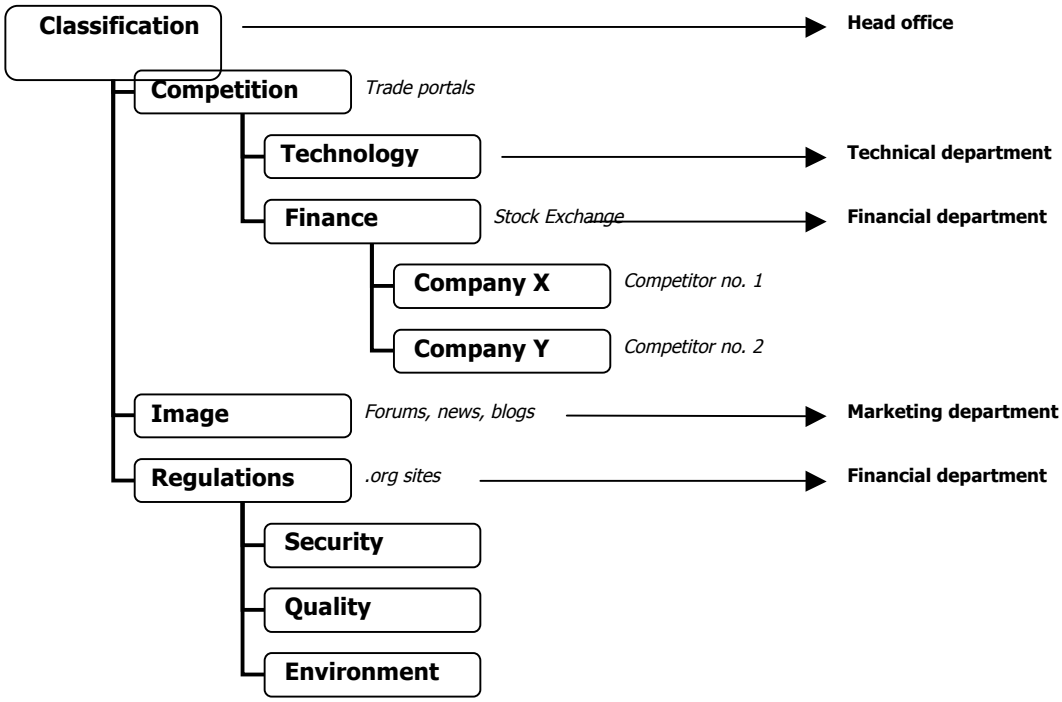
The Classification is a tree structure of *Sections*. The documents that are published or waiting to be published are linked to one or more classification sections.

Each Section contains:

- ✓ A position in the tree structure, specified by its parent Section
- ✓ A list of reference Subjects, Collect Map extracts
- ✓ A list of Users with read/write rights to the Section

Just like the Collect Map, the Classification applies to the whole application.

Example of a classification map for a given trade:

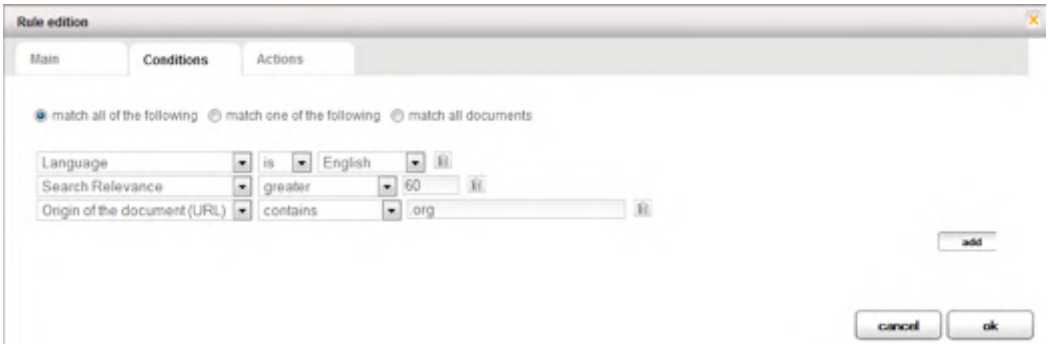


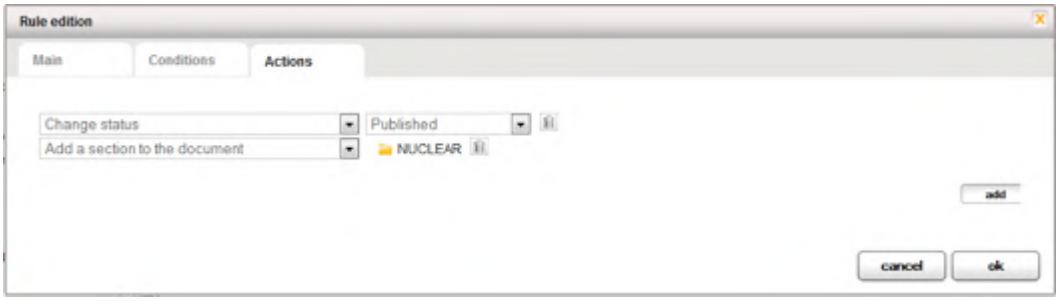
5.4.2.7 "Document rules" function

This function is an additional option provided by the "Organize" module. It is based on a rules engine intended to improve the automatic processing of collected documents. The documents that meet these specific "conditions" will have one or more specific "actions" applied.

The conditions relate to the status of the document, its properties, its life cycle and to the metadata associated with it. Regarding the actions, these enable interaction with the aforementioned conditions or with the document classification.

Example of a rule for an automatic allocation of a document:



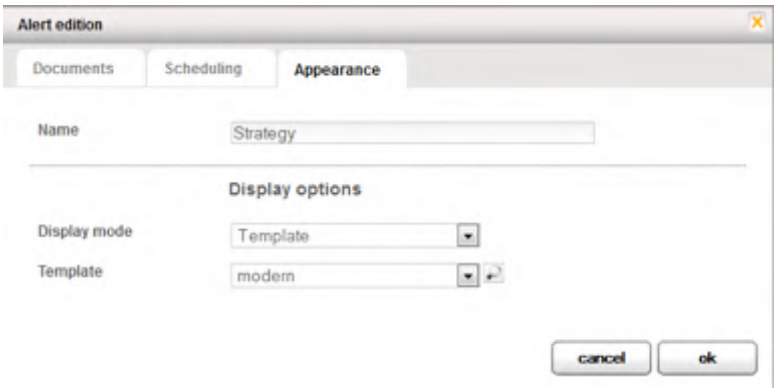


5.4.2.8 "Manage alerts" function

This function allows users to configure the automatic alerts which, depending on the defined criteria, automatically send the relevant information by e-mail to lists of recipients: a daily or weekly newsletter, alerts about documents to be validated, collections of new information, etc.

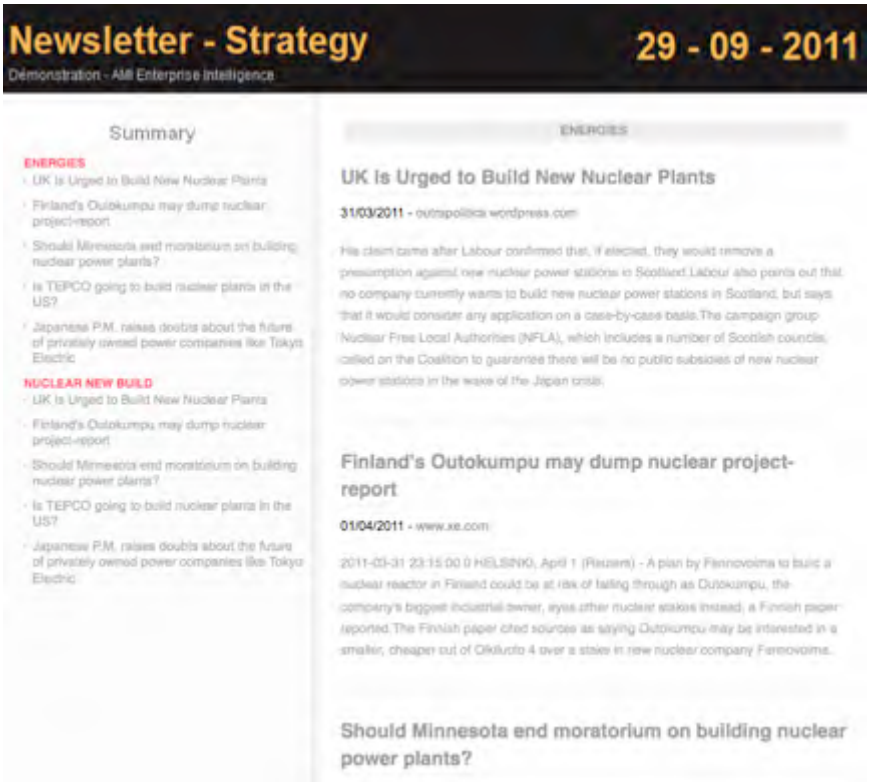
An alert is made up of three elements:

- ✓ The alert content and conditions, which enable users to limit the documents for one or more sections of the classification.
- ✓ Programming: frequency, list of recipients, etc.
- ✓ Alert appearance Several newsletter models are available and the user can create their own model in accordance with the graphic style guide of its organisation (available with the Enterprise Edition).



✓

Newsletter example:



5.4.2.9 "Admin documents" function

This function integrates three modules: "Re-index all documents", "Indexation database status", "List all the linked objects".

The first module allows users to clean up the indexation database for shared documents and to re-index all the documents available in the database.

The second provides a detailed view of the status of the indexation database by obtaining a set of statistics.

The "List all the linked objects" module displays all of the subjects processed in the database by indicating for each whether the section is active and which classification index it concerns.

Enabled	Subject	Section	
0	Automotive Legislation : Automotive Legislation	EV Legislation	
0	Automotive CI : Automotive CI	BMW Inside View	
0	Oil Major : Oil Major	People	
X	Materials : Materials	Gypsum	
X	Opportunities : Opportunities	New Build	
X	Ian B : Ian B	CI	
X	CMO : CMO	CMO	
X	Ian B : Ian B	prospects	

5.5 Valuing the information: analyse

5.5.1 Analysis principles

Analysing allows the user to gain a deeper understanding of the same information according to the same classification and the same statuses. The analysis principle, managed by the "Analyze" module, is as follows:

- ✓ Determination of a Scope by selecting a Classification Section or a filter based on expressions over a period of time and/or over a geographic distribution (coupled with an external Geographic Information System)
- ✓ The use of statistics tools and text-mining over this Scope

5.5.2 "Analyze" module

The "Analyze" module extracts the statistical and semantic information from a set of documents, known as the "scope", defined by the user.

This scope can be identified by:

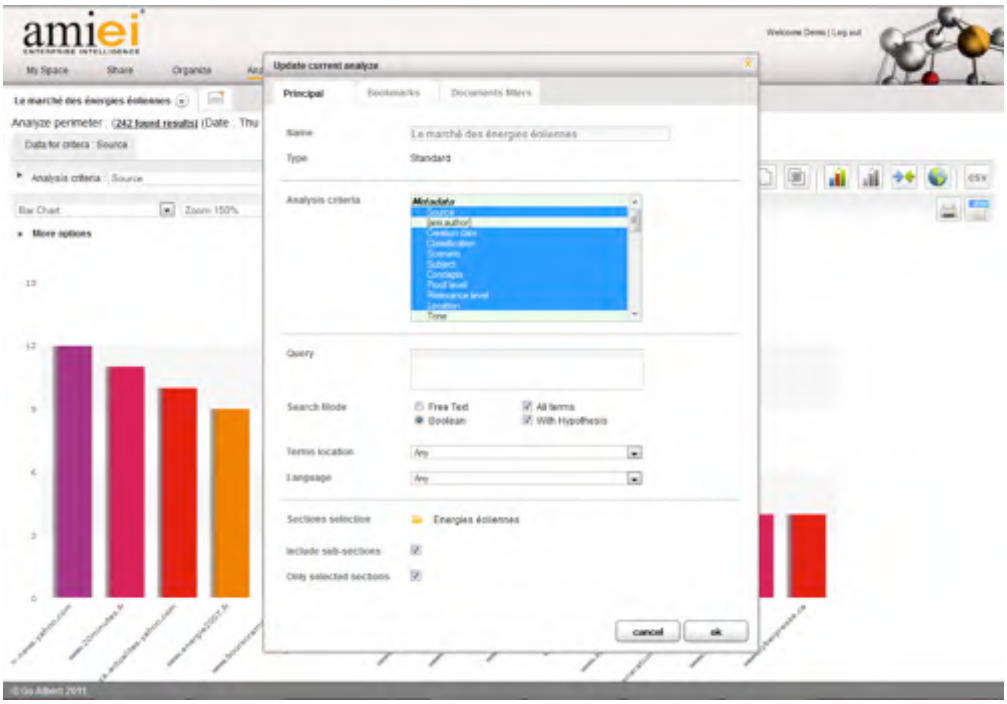
- ✓ One or more classification sections
- ✓ A query allowing only the documents that match the query to be considered
- ✓ The status of the documents concerned

- ✓ All of the properties (relevance, proof level, etc.)
- ✓ A range of time set between an old date and a new date
- ✓ A space restriction limited by a geographic selection proposed by an external Geographic Information System connected to AMI.

All the analysis results can be recorded and exported in xml.

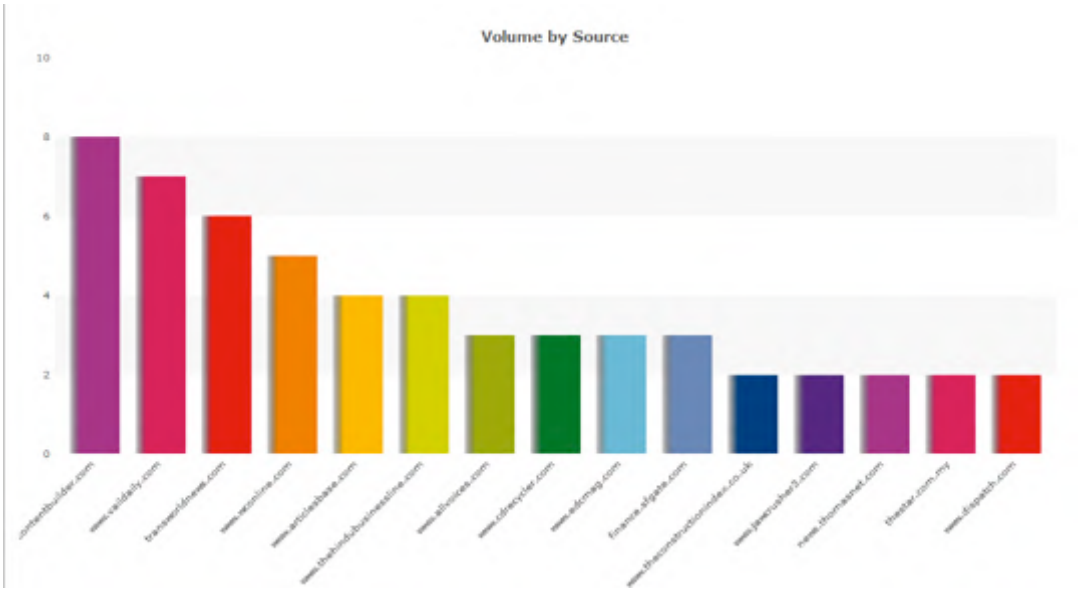
The results of an analysis can be recorded and the analyses reproduced:

- ✓ either by the static restoration of the results of the stored analysis
- ✓ or by adding the stored analysis to the updated data



5.5.2.1 Measuring source contribution

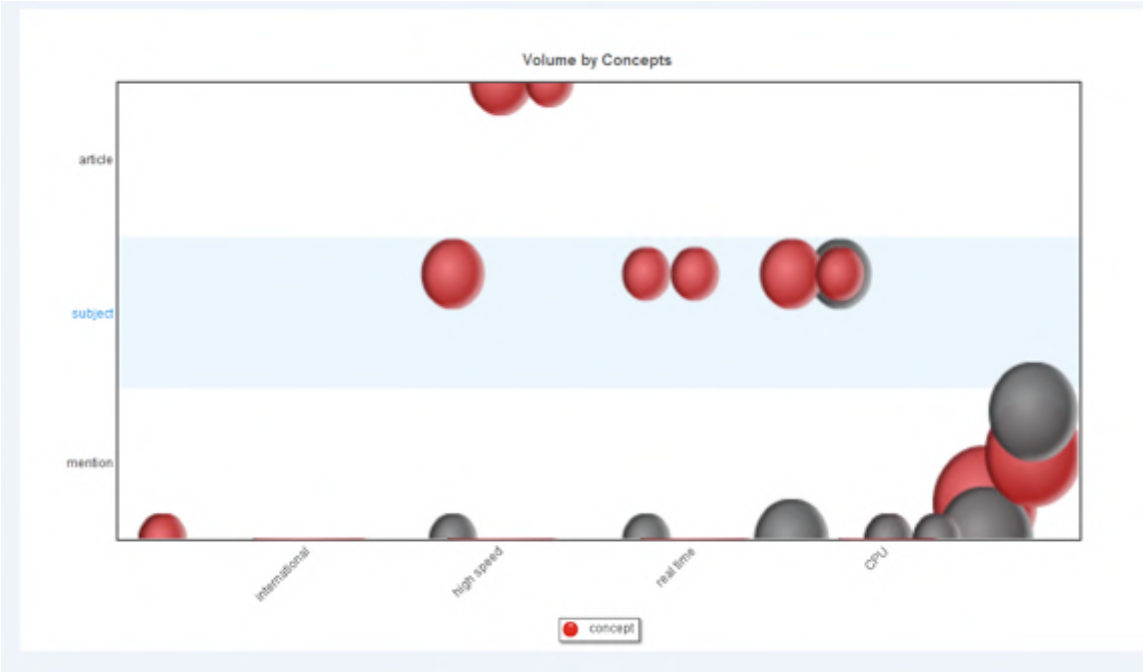
This tool shows the distribution by source of the documents included in the scope:



The module is used to obtain comparative analyses between the different sources. It is also possible to consult the documents concerned, to compare volumes over time, or to obtain comparisons by classification, scenario or subject. The aim is to prioritise the transverse actions between the "Analyze" and "Organize" modules.

5.5.2.2 Volume and centring

This tool shows when the documents included in the Scope were distributed.

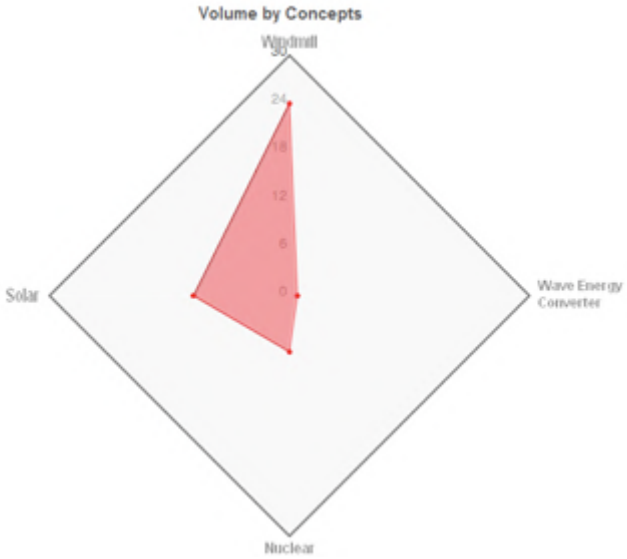


The volume shows the number of documents collected over a period of time, and the centring shows how the selected expression is represented in the documents.

5.5.2.3 Cross-section analysis of the Classification

This tool shows the volume of processed documents in accordance with the classification files.

Illustration of a cross-section analysis:



5.5.2.4 "Concepts" analysis tool (identifying trends)

Throughout the Scope, the AMI kernel automatically extracts the *trends*, i.e. the main corresponding concepts (terms or expressions). Some are typical (geography, organisation, person), others are discovered using significance criteria in the documents (general concept).

It is then possible to select several of them and compares their importance.

It is also possible to display the concepts in the form of a "cloud":

A *knowledge base* is dedicated to the Analyze module and the detection of concepts. It is possible to define that one expression is synonymous with another (e.g. "Downing Street" is synonymous with "Prime Minister") and these expressions should not be distinguished in the analysis functions, in the same way as for search and collect. In addition, it is possible to decide to block a concept or change its category.

As in the other analysis modes, it is possible to consult the unions and intersections of documents, to compare the selected concepts by volume over time and by the level of centring, or to study their distribution by classification, scenario or subject.

5.5.2.5 "Cartography" analysis tool

To enable the monitor or analyst to find weak signals, AMI is able to show "break-off" information.

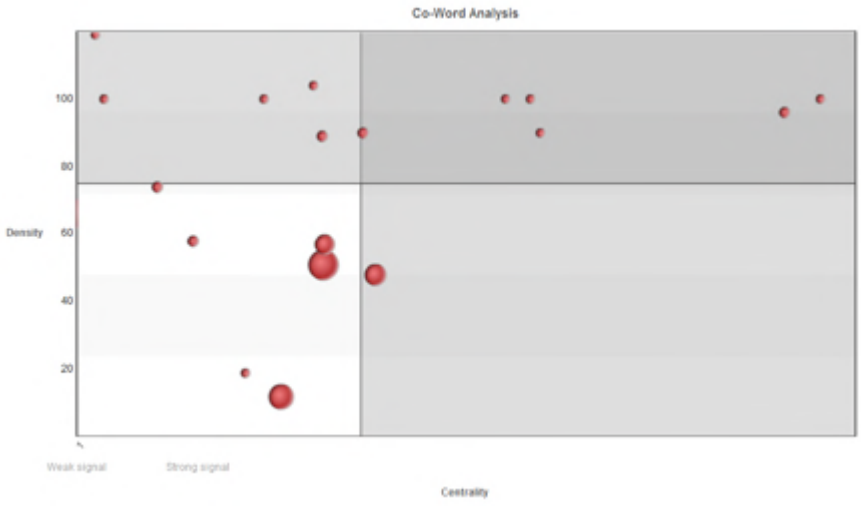
The "break-off" information can be found by clustering the extracted concepts. This clustering is based on the simultaneous occurrence of concepts in the same documents. Thus the concepts often quoted at the same time in the same documents are linked in the same cluster (internal link). Other weaker concepts that occur simultaneously are located in different clusters but linked to each other via an external link.

Each cluster may be characterised by two properties:

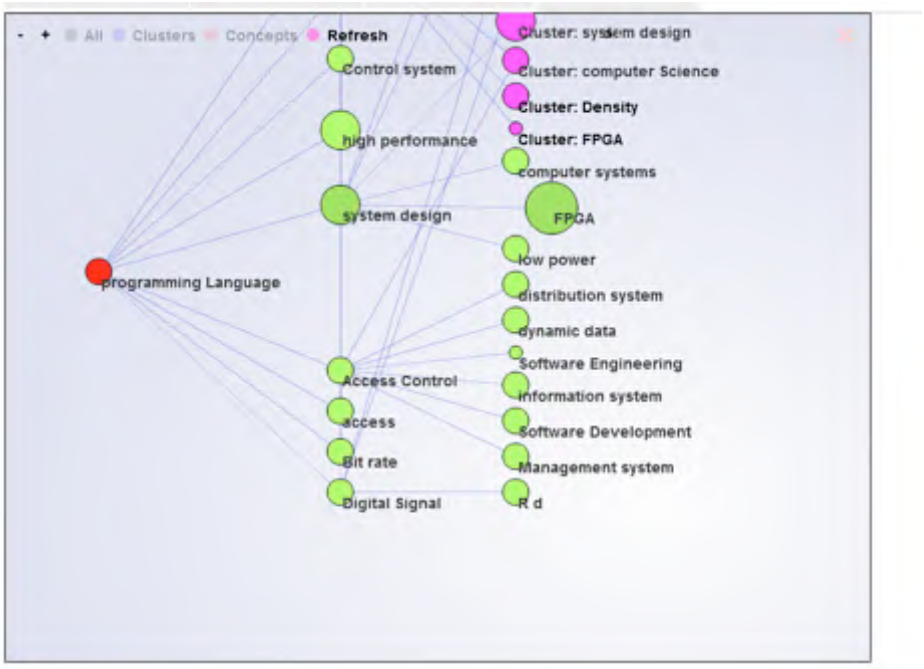
- ✓ The density measures the intensity of the internal links to the cluster
- ✓ The centrality measures the intensity of the external links linking the cluster to the other clusters

A representation of clusters according to the two density/centrality axes may help locate the "break-off" information. A dense but not very central cluster (poorly linked to others) is often an indication of the existence of "break-off" information from the rest of the scope. This could be a phenomenon in decline or an emerging phenomenon. This is why verification of the existence of "break-off" information, over time, could be an indication of the existence of a signal.

Examples of analysis results displayed by Cartography:



Finally, all AMI Analyze tools are interactive and can be clicked on, allowing users to familiarise themselves with the information. Therefore AMI Analyze can also be seen as a means of browsing.

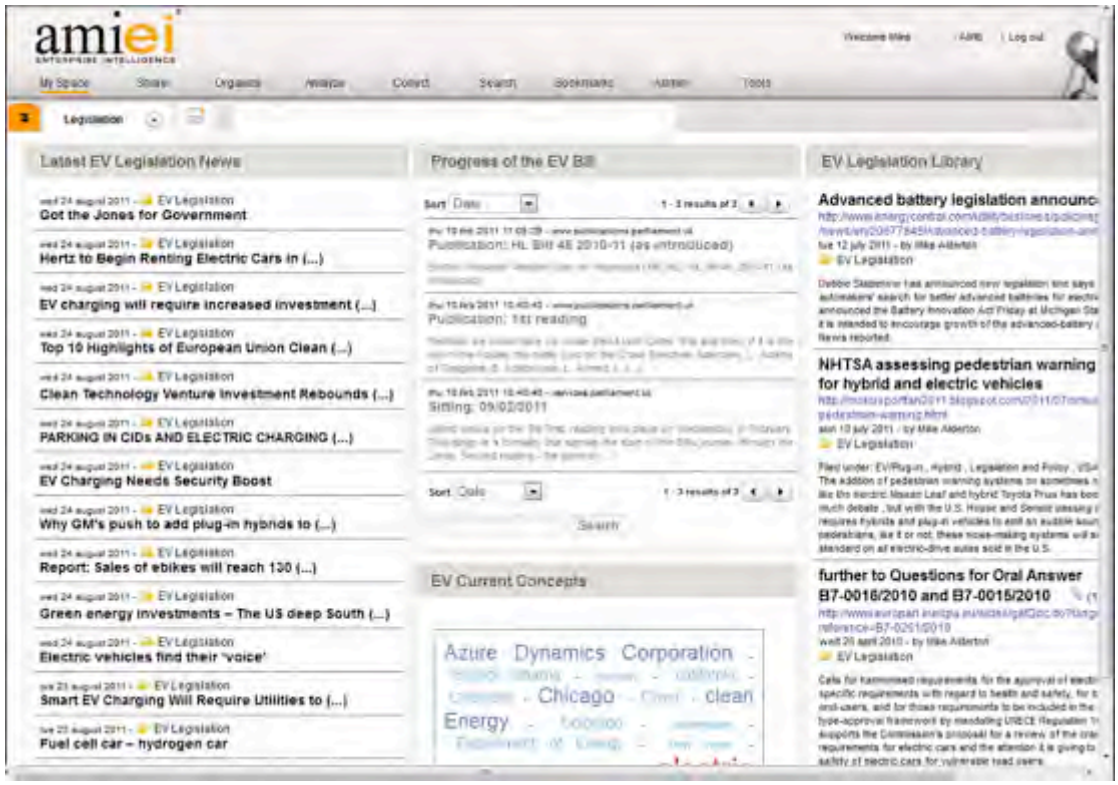


5.5.2.6 "Ontologies" analysis tool

This tool is an option and requires the installation of the AMI Analyze module. It is described in the "Available options" section.

5.6 Share and distribute information

5.6.1 "My Space" module (My AMI)



My AMI is the module for accessing all the AMI EI objects to which the user has access. In the simplest case, it allows the end user (guest) to be able to see all of the published documents.

For advanced users, it allows them to organise the layout of all of the information in dedicated functional areas, themselves accessible by a system of browsing by tabs.

The functional areas can also display information that provides tools for action: contributing, searching, etc.

Profiles charged with organising, collecting and validating the information can therefore design useful dashboards for their own use and for the use of their "clients" (e.g. guests, management).

A function for exporting data presented in My AMI for Word[1] type text processing allows the creation of customisable newsletters.

[1] Microsoft Word version 2003 or higher, or Open Office

5.6.2 "Share" module

The "Share" module allows users to consult published documents in the sections to which they have read access.

It therefore aims to distribute, in the widest sense, documents that make up the "Company Memory". In this regard, it is a "public" module.

It provides the "View the documents" and "Manage RSS feeds" functions; it also manages discussions, described in the paragraph on the "Organize" module.

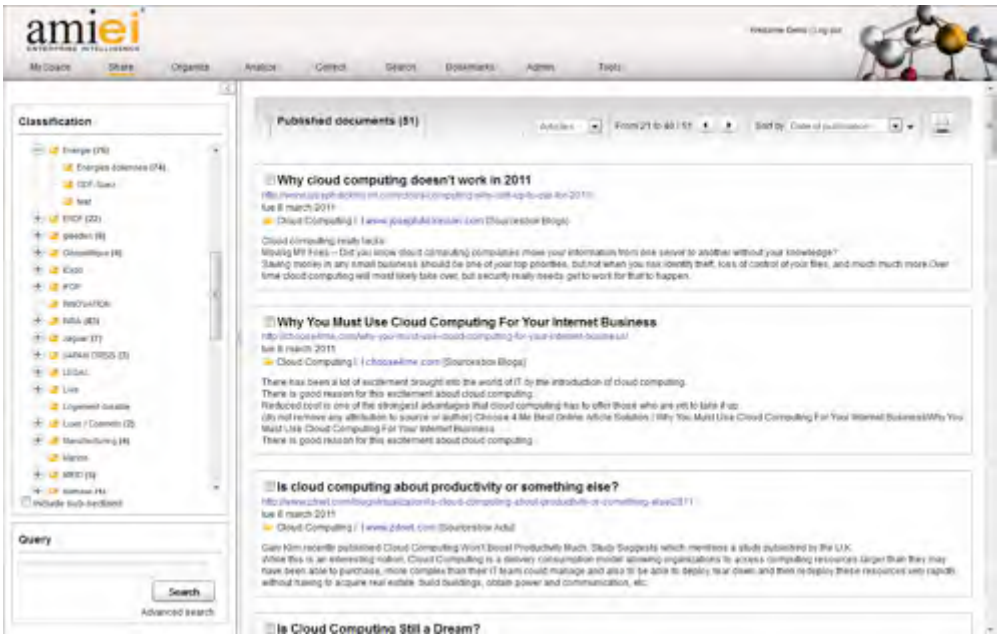
5.6.2.1 View the documents

The module presents the user with:

- ✓ On the one hand, a tree structure made up of all of the sections for which the user has read access (this tree structure is a subset of the classification).
- ✓ On the other hand, a list of documents that can be consulted, either in full or for the branch selected in the tree structure.

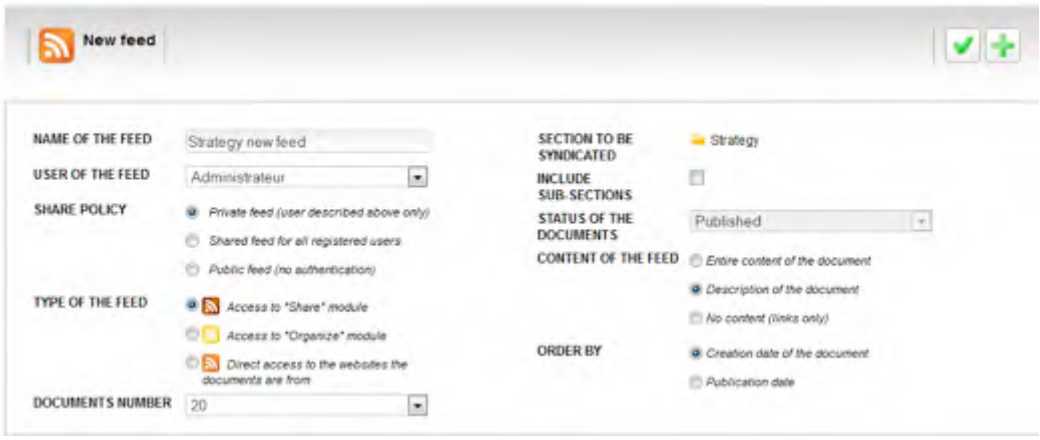
For each document in the list, the user is supplied with advanced information by the AMI kernel (quotes, keywords, etc.) and can consult its properties, text image or the original version in its format (html, PDF, audio/video, etc.), if necessary.

Examples of a consultation screen:



AMI Share, like AMI Organize, provides two search methods: simple and advanced.

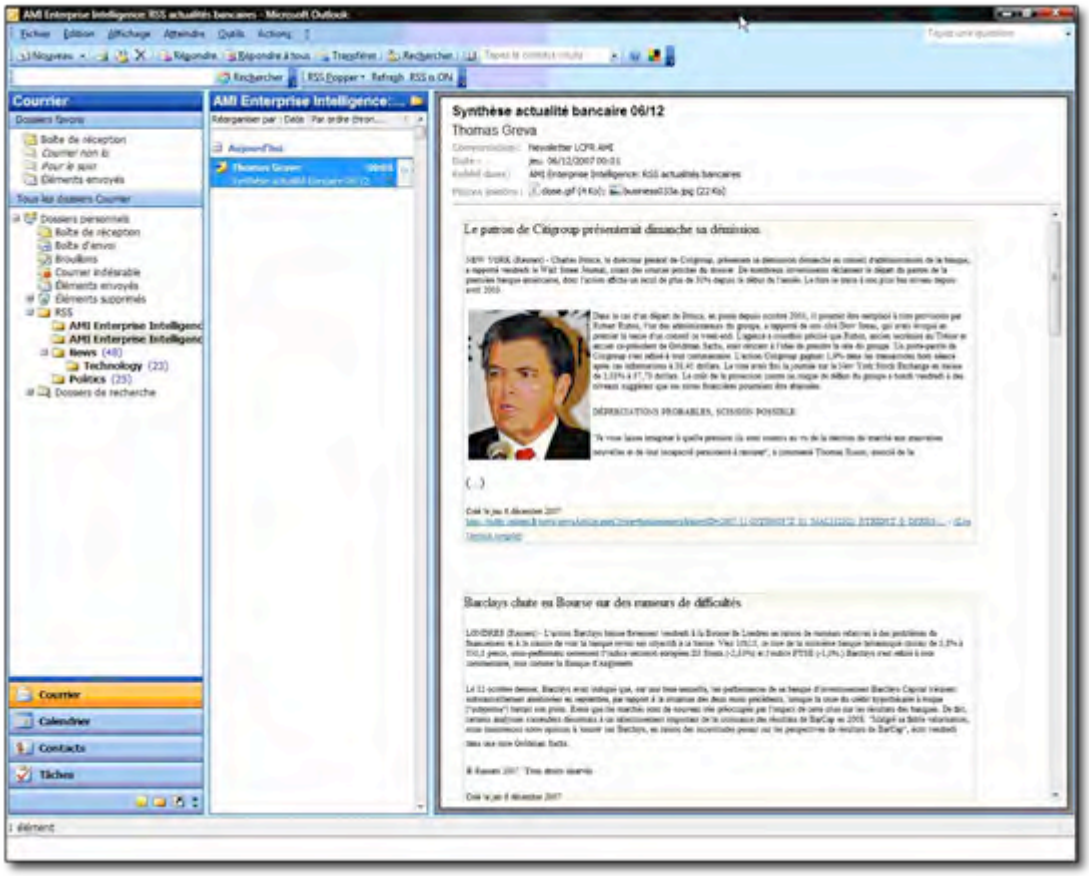
5.6.2.2 Manage RSS feeds



Users can use AMI Share to create RSS feeds, if they have the rights for this. A feed is associated with a classification section and can be customised according to the following parameters:

- ✓ Name given to the feed
- ✓ Indication of the name of the person who created it
- ✓ Access rights: private, shared (protected by password) or public
- ✓ Feed type, i.e. value of the tag <link>:
- ✓ Pointing to the document in the "Share" module
  - ⇒ Pointing to the document in the "Organize" module
  - ⇒ Pointing to the original document, in the source
- ✓ Status of the documents (depends on type):
- ✓ Section to be syndicated: this could be one section or the whole tree structure
- ✓ Feed content:
  - ⇒ Entire content of the document (self-sufficient feed)
  - ⇒ Description of the document
  - ⇒ No content (links only)
- ✓ Date displayed, i.e. value of the tag <pubDate>:
  - ⇒ Creation date of the document
  - ⇒ Publication date
- ✓ Maximum number of generated documents (between 10 and 100)

The module is also used to access the feeds; the url of the feeds can be stored in any RSS reader such as the browser or messaging client:



6 AMI EI Enterprise Edition

6.1 Introduction

This version of the platform is adapted to a cross-company deployment involving several departments: strategy, legal, marketing, research & development, communications, etc.

It manages several projects that need to share all or part of the application resources and data.

6.2 "Multi-project" management

AMI Enterprise Edition manages several projects or studies through the same application.

The projects can be subdivided:

- ✓ By user
- ✓ By accumlation database (classification, documents)
- ✓ By Collect Map
- ✓ By knowledge base
- ✓ By analysis
- ✓ By dashboard

Only the sources defined in an AMI Sources Provider can be shared.

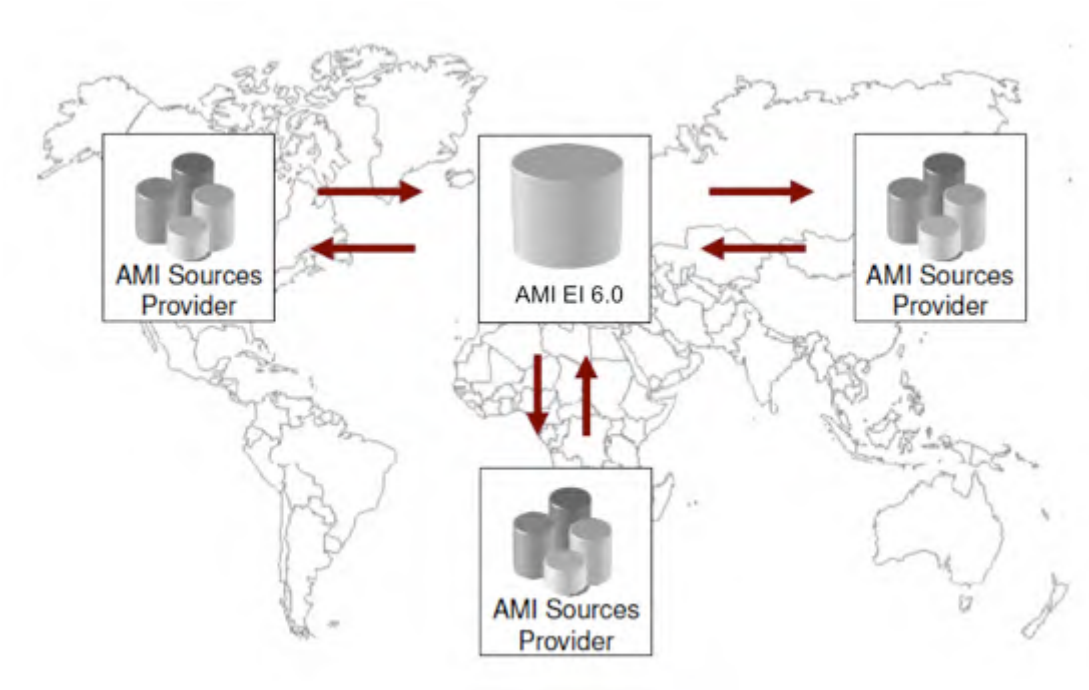
The administrator of the application is the only user with the right to consult all of the projects.

This option is relevant for company projects involving several departments.

6.3 Distributed management of sources: AMI Sources Provider

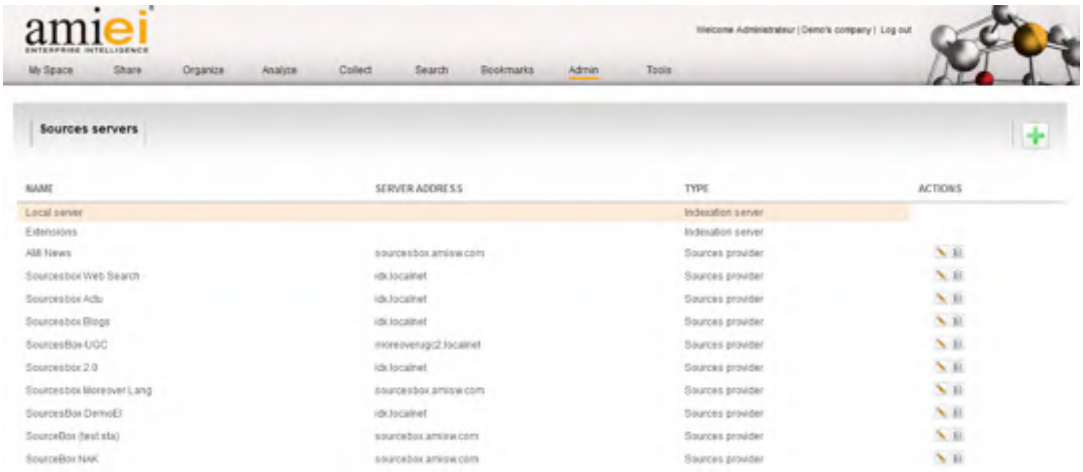
AMI Sources Provider creates a "mini-website" that is fully dedicated to an AMI Enterprise Intelligence application with strategies to use the different and adapted sources for each server. Therefore, each server is seen as an independent subset with its own rights management attached to sources, its own access protocols, its refresh rates and its own stealth management.

AMI Sources Provider therefore allows for unlimited growth, if it is not linked to the power of the servers, the number of sources monitored, the type of source monitored and therefore its informational scope while keeping the same AMI Enterprise Intelligence application. AMI Sources Provider thus searches for information across millions of sources, which, in the field of searching for information in a company, represents a major development.



Shared source architecture

AMI Enterprise Intelligence V6.0, Enterprise version accesses sources servers locally or remotely via the AMI Sources Provider option.



There is only one local server that is provided by default in the standard version.

On the other hand, there could be one or more remote servers (the *distance* could be physical or just logical), which:

- ✓ Build a "scalable^2" architecture: **AMI Enterprise Intelligence version 6.0** aims to control a growing number of sources without calling into question either the initial application or the server on which it is deployed

- ✓ Access to remote sources of information that may be provided by external users of AMI

This approach streamlines access to sources of information throughout a company, shares sources of information throughout the same organisation between different departments concerned and therefore mutually organise the use of these sources. This point is particularly relevant when the sources are accessed with payment, where a centralised and controlled management is often synonymous with costs management.

6.4 Usage statistics

The "Enterprise Edition" of AMI EI provides various indicators and statistics on the development of the AMI databases and the activity of users of the application. Each AMI modules has its own range of indicators. Each of these indicators can be customised in order to target a specific and relevant scope of observation and can be instantiated just like a new "My Space" element.

For example, it is possible to add an element to the "My Space" dashboard, which allows for the monitoring of activity of the experts, monitors or contributors with the publication base documents over the last 10 days, or to add an element, which allows the monitoring of how many times the articles are read by the group of AMI platform visitors.

This function provides indicators and statistics on the AMI EI data:

- ✓ Documents, sections most viewed
- ✓ The volume of documents created, publication, consultation
- ✓ Statistics on searches carried out
- ✓ Statistics on connections and users
- ✓ Statistics on sources

These indicators are essential for the management of the project in order to assess the actual usage of the application by the different profiles with access to it. This makes it easier to have a clearer understanding of the return on investment.

In economic intelligence, this statistical data is an essential tool to better define the centres of interest of the users and therefore optimise the monitoring cycle, all the more so since the organisation concerned is important and the "monitor - user" link is remote.

In managing the knowledge, this function allows for better management of the decision-making MyAMI dashboards by focussing them on key subjects for the profiles concerned.

6.5 Distributed architecture

To meet the targets for high performance, security and stealth, AMI Software is proposing to implement distributed architectures, the characteristics of which may be the following:

- ✓ A central environment, highly secure, hosting the AMI EI application with all of its functions. It also hosts the accumulation database

- ✓ A distributed environment located on remote servers that will host specific processes (collection, indexation) for some local sources
- ✓ Any intermediary environments for the collection can be created in order to increase the distance between the source and the central environment

The implementation of a distributed architecture such as the one provided by AMI Software aims to:

- ✓ Split the different stages in the collection process (separation of the detection of new information and the extraction of useful pages)
- ✓ Guarantee a greater level of stealth

6.6 High availability

The Enterprise version allows for the implementation of architecture that enables a very high availability rate (99.99999%), in particular through the management of:

- ✓ "Load balancing"
  This balances the load between the load of the available server, this architecture meets the scalability needs in terms of application usage, the number of users and the processed data.
- ✓ Failover
  The application has failover capability that is totally transparent for the user
- ✓ Upgrading capability
  The architecture adds clusters or cluster elements without changing the architecture in place. It is possible to separate web server clusters from data server clusters.

6.7 SDK (Software Development Kit)

The SDK of AMI solutions takes advantage of all of the components and offers a wide range of indispensable functions in the integration of AMI into the company information system or to put in place connectors to the complex sources (internal or external).

These functions include the collection of documents, the analysis of documents (language detection, GMIL, QBS, etc.), the processing of XML feeds, access to system commands, sending of emails, etc. The modular structure of these solutions combined with the extremely flexible nature of the implementation around API means the portability potential is very high.

The API of AMI™ and albScript solutions is an API javascript (*ECMA 602/javascript 1.5*) that combines AMI technologies with any other environment.

albScript is a javascript2 engine that activates the AMI objects. These AMI objects provide access to the main functions of AMI, e.g. searching and learning, indexing, etc.

albScript creates applications based on functions covered by the AMI components: indexing, learning, searching, etc.

The main objects described in this document:

- ✓ Create several *amiIndexer* objects to index the different databases automatically

- ✓ Add customised metadata during indexing
- ✓ Create *amiSearcher* objects and work on their presentation through the *amiResult* object
- ✓ Create several *amiSearcher* objects to dynamically modify the parameters of the configuration file (albert.conf)
- ✓ Use *amiDocument* to summarise, find headings, keywords, links without having to index or search
- ✓ Use amiDocument to create summaries and headlines "oriented by the query" or by every phrase supplied (*query biased summary* and *query biased title)*
- ✓ Create *amiLearner* objects to extract text analyses reports
- ✓ Use a combination of all of this to find and return the original content from the results and create statistics on the links found
- ✓ Read or generate XML with the *aXMLDocument* object
- ✓ Consult mailboxes with the *aMailbox* object and send emails using the *aMail* object to relevant people
- ✓ Carry out HTTP transactions using the *aHTTPConnection* and *aHTTPresponse* objects
- ✓ Run tasks in parallel with the help of the *aTask* object

6.8 Customising the application

There are several possible levels of customisation for the application. A dedicated *Pers* environment stores all of the specific elements.

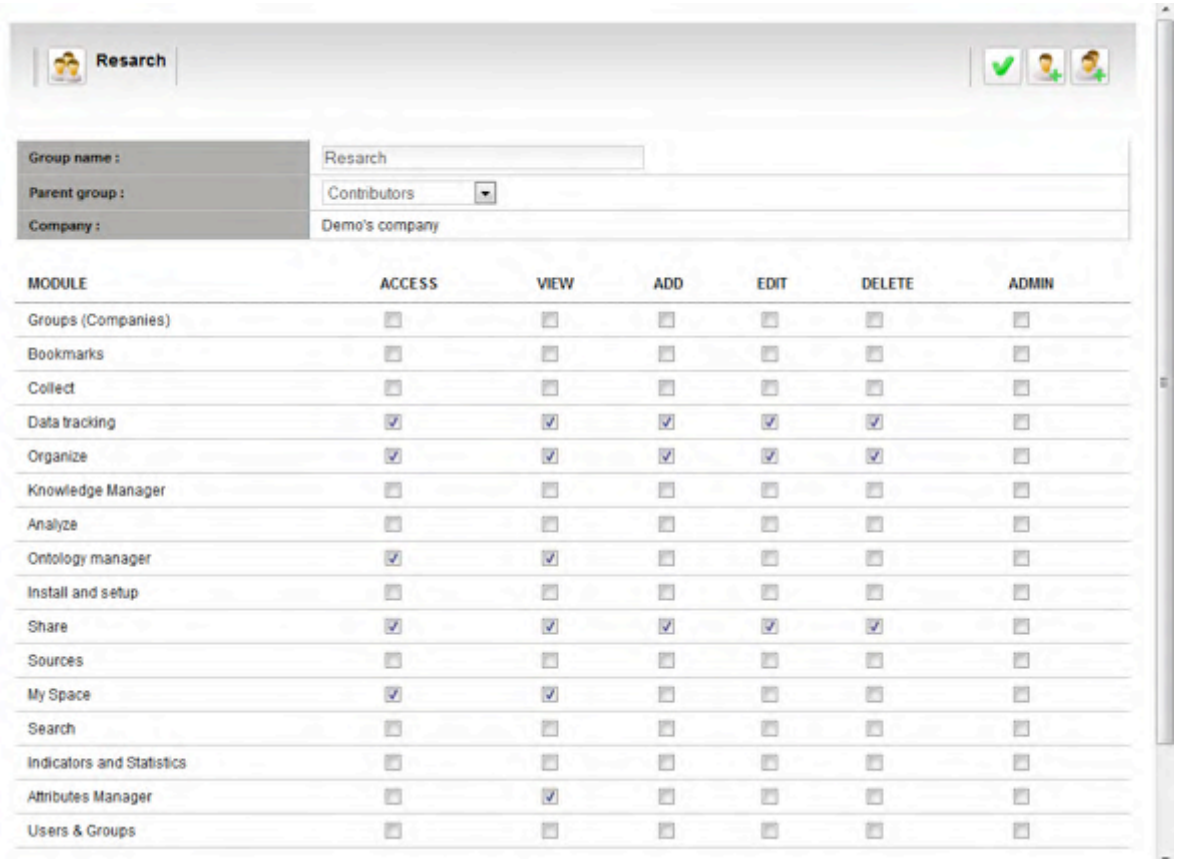
- ✓ Implementation of Newsletter templates.
  The use and modification of example models provided by AMI are described in a chapter of the SDK documentation.
- ✓ Customisation of application style.
  AMI provides a style guide, numerous elements of which can be customised.
- ✓ Specific customisation.
  AMI provides numerous points of access for the customisation of the application behaviour, or even to integrate third-party software applications.
  It is therefore possible to "overload" the methods for creating, modifying and displaying a document. These different customisation possibilities are also described in the "AMI SDK" document.

6.9 Advanced user management

The Enterprise Edition is used for advanced management of the application users:

- ✓ Management of "custom" groups in addition to those supplied by the application.
  It is possible to create as many subgroups as necessary. This makes it possible to manage the common access rights in the rest of the application, in particular to the classification files or the source bookmarks.
  In the example below, a group of "Search department" contributors is created:

The default rights of this group are defined:



- ✓ Integration with an LDAP system is possible. It is possible to "populate" the AMI user base from an LDAP database.

7 Available options

AMI Enterprise Intelligence offers many options that may be acquired during the initial command or later. These options form the subject of a specific invoicing.

AMI Enterprise Intelligence version 6.0 is compatible with the options described below:

- ✓ Multimedia server
- ✓ Management of ontologies
- ✓ Modules for supplementary languages: Arabic, Russian

7.1 Multimedia server

The "Multimedia server" refers to the optional capacity of AMI EI to capture and store fixed or video image type data.

Natively, AMI EI retains the links to images that the collected pages contain (after "cleaning", as described in section 5.4.2.2). With the "Multimedia server" option, this information is also collected and the link is converted into an internal link based on AMI documents.

This means that if the image disappears from the source to which it is linked or if the outgoing links are not authorised, the image is still presented to the user.

Supported multimedia formats are:

- ✓ Images that are displayed natively by the browsers
- ✓ Videos from the following sources: YouTube, Dailymotion, Metacafe, Figaro, RuTube.

Other formats will be added to minor and major versions of AMI Enterprise Intelligence. Our marketing team would be happy to forward you an up-to-date list.

7.2 Acquiring audio and video content

AMI Enterprise Intelligence allows for, as an option, the acquisition of audio or video content. Partner technology is used to convert the sound of these sources of information into text. The nature of these sources determines the type of conversion needed (streaming sites, digital information channels).

Once the text has been extracted, it is indexed in the same way as any other html document, for example.

The bulky feeds can be cut into sections, and a dedicated restore module is used to listen to the text while reading it, when this content is played. If the document is in video format, the restore module can display the content.

These two options (multimedia server and audio/video acquisition) may require the installation of plug-ins on the workstation. The second one also requires a sound device (sound card and loudspeakers or headphones).

7.3 "Ontologies" analysis tools

This tool is optional and requires the use of the AMI Analyse module.

The ontologies produce information records on the concepts that are automatically detected by the analyse module. The proposed ontologies concern the people, organisations, events and locations by default.

For example, if the company or entity uses AMI EI to model its organisation (subsidiaries, offices, factories, branches, managers, etc.) in the form of RDF diagrams, the collected documents can be divided up according to this organisation and, conversely, navigation in the tree structure of the different entities of the group allows access to the documents related to this.

One or more *ontologies* can be imported into the AMI Enterprise Intelligence v5.0 knowledge base. The content of these ontologies can be displayed through the AMI Analyse module when the analysis scope documents contain terms belonging to them. These ontologies can also be fully customised.

Example of a company record.

7.4 Modules for supplementary languages: Arabic and Russian

All of the AMI Enterprise Intelligence application modules support the documents with the non-ISO Latin1 character sets. At AMI Base Server level, the Arab and Russian specific language modules are now available.

The advanced information processing algorithms at the heart of the AMI technology are applied to these new languages.

More specifically, the two languages Arabic and Russian are managed by the AMI software applications, in the following manner:

- ✓ Specific algorithms to recognise the language
- ✓ For each, a mini-glossary is used to identify the empty words of the language (prepositions, articles, etc.), thereby enabling a better analysis of the search and index scenarios to be carried out

- ✓ A list of specific dictionaries (geographic locations, pronouns, certain organisations or names of people) are available in Arabic alphabet (for Arabic) and in Cyrillic (for Russian), which enables the extraction of nominated entities. In the case of the latter, these dictionaries can be supplemented depending on specific needs.

  Of course the linguistic processing used depends on the language processed and its grammar. It is therefore possible that some processing does not exist for certain languages (whether European or not); the function of these components is adapted to each of them.

  There are numerous dialects in the Arabic language. However, the written language, particularly the published language, is academic Arabic that is the same for all countries. The publications that appear on the Internet have a wide range of lexicographical variations, in particular when they are written by Internet users. In any case, these variations are similar to those that may exist for other European languages, e.g. French. The AMI technology is sufficiently robust to take these into account. In addition, it is possible to expand the dictionaries with synonyms in order to build links between a term and its different dialectal variations.

8 Compatibility with other AMI software programs

The **AMI Enterprise Intelligence** architecture is designed in a way to ensure compatibility with other AMI Software programs.

8.1 Compatibility with source management

This compatibility is native, since the installation, and therefore the function, of the connectors is done at AMI kernel level, which is common to all AMI Software applications.

8.2 Compatibility with the databases

The application database of **AMI Enterprise Intelligence version 6.0** is compatible with that of the previous versions, generations 5.0 and 5.1. If necessary, migration tools are provided to upgrade the data to **AMI Enterprise Intelligence version 6.0.**

Therefore, the knowledge and expertise capital of the company is retained during the migration to **AMI Enterprise Intelligence version 6.0.**

9 Compatibility with other software programs

In order to extend the range of functions provided by the solution, AMI Software is compatible with other products on the market.

It is therefore possible to use third-party solutions, e.g. in the following domains:

- ✓ News or economics and financial information feeds
- ✓ Automated translation modules
- ✓ GIS solutions (Geographic Information System)
- ✓ etc.

A preliminary study is then considered in order to validate the requested functional scope.

10 Documentation, contacts and support

AMI Enterprise Intelligence v6.0 is delivered with full documentation, in French or English, accessible in fully structured PDF or HTML format.

This documentation serves as a guide for the AMI Enterprise Intelligence v6.0 administrator when installing the product and during day-to-day administration. It describes all of the parameters involved in the running of the software program, both from a technical and a functional perspective.

It is made up of:

- ✓ A Reference Guide
- ✓ A Programming Guide (SDK)
- ✓ A User Guide
- ✓ A Reference Manual
- ✓ Technical Specifications

For any information relating to **AMI Enterprise Intelligence**, please contact AMI Software or an AMI Software retailer – contact details can be found on http://www.amisw.com.

11 Appendices

11.1 Technical appendices

11.1.1 Physical architecture

The physical architecture, i.e. the organisation of **AMI Enterprise Intelligence** files, is in direct correspondence with its functional architecture. Refer to the "AMI Enterprise Intelligence Technical Specifications" document, available from AMI Software marketing teams.

11.1.2 Security

11.1.2.1 Authentication

The *authentication* of users applies to the whole application. It is centralised either by relying on an external LDAP system or a system integrated into the application.

Each user can allocate global rights and/or specific rights for each module.

Security through authentication also protects the data between the different users.

11.1.2.2 Web security

The *web security* is available in the physical architecture. It can be divided into several areas:

- ✓ Public space: the web part that is accessible to everyone without identification
- ✓ Identified space: the web part that is accessible to identified persons
- ✓ Internal space: the web part that is accessible only for internal exchanges (Web Services)
- ✓ Prohibited space: elements that are not accessible

The web security also protects the physical integrity of the application.

11.2 Legal aspects for the use of the sources

The use of the document sources, in particular the contents available on the Internet, is governed by articles L.111 et seqq. of the Intellectual Property Code. In particular:

- ✓ According to the terms of article L.112-1, the works are normally protected by copyright, no matter what their destination.
- ✓ According to the terms of article L.122-5 (para. 2 and 3), only copies or reproductions strictly reserved for the private use of the copyist and not intended for public use are allowed; this includes analyses and short quotes used for example and illustration purposes.

- ✓ According to the terms of article L.122-4, any representation or reproduction in full or in part carried out without the consent of the eligible parties or legal representatives is forbidden.

  It is therefore the responsibility of the AMI Software users to ensure that they comply with the legislation, and in particular to ensure that they respect the distribution rules imposed by the eligible parties or legal representatives concerning the sources.

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