OpenIMS®

Fast, Easy to use and On-demand
A Content Platform from the 21st Century

Content Management Server
Whitepaper

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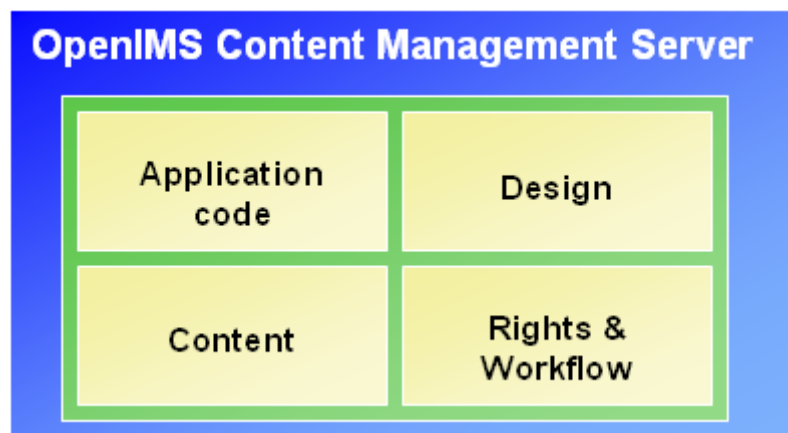# 1   OPENIMS® CONTENT MANAGEMENT SERVER (CMS)

The better of two worlds is joined together in this Content Management environment. The back office is stabile, sizeable and extremely fast. The user interface completely works from within the web browser and links up with Microsoft Office perfectly. This means that Microsoft Word will be used to manage all content (including images)

OpenIMS® CMS gives you standard facilities like:

- Separation of design and content;
- Content management using Microsoft Office;
- Content listing;
- Version management including audit trails;
- Workflow;
- Content distribution;

OpenIMS® Content Management Server is constructed from four integrated parts, these are:

- Content management;
- Design/Layout;
- Rights and workflow;
- Application code (custom made).

Stylists and interface designers can, with the use of Dreamweaver or for example Microsoft FrontPage, manage the layout of the OpenIMS® sites themselves. Within OpenIMS® design and content are completely separated.

For programmers it is also simple to add new functions in OpenIMS®. For this purpose the so called Flex (custom made components) environment is available. Version management (audit trail) and workflow are available also for program code.

OpenIMS® is an Open product and since XML is used from the foundation, it meets many international technical requirements. Therefore no investments are necessary for storage in external relational databases, although this is possible. Because of the open structure integration with other (external) systems is also possible.

2   WHY OPENIMS® CONTENT MANAGEMENT SERVER

OpenIMS® CMS is a flexible platform for managing content. At this the possibilities to, for example, adjust the design, workflows, the use of metadata, etc afterwards without the intervention of developers, have been taken in consideration.

An overview of possibilities:

- Geographically independent;
- Your current website can be transferred without any problems;
- The new website is available within 2 to 4 weeks;
- 100% web based;
- Options between renting, using own server or hosting provider;
- Numerous Out-of-the-box functions;
- Real time content publication;
- By using OpenIMS® Document Management Server a broad platform is created for managing all kinds of information (ECM);
- Editing content with Microsoft Word with the full use of Word functions like spell check, images, hyperlinks, objects (Visio), super- and subscript texts, et cetera;
- Content preview (concept) in the design of the site;
- Design templates editable without IT knowledge;
- Several websites and domain names via the same server (e.g. internet and intranet site) and licence;
- Powerful facilities for forms;
- Various modules: panel discussions, poll's, etc.;
- Integrated search engine;
- Simple configuration and use of metadata fields;
- Can completely be indexed by every search engine (for example Google);
- Multi lingual user interface;
- Extensive facilities for workflow and authorisation;
- Reminder / Notification;
- Links with external systems (e.g. database, ERP);
- Possible overtaking network authorisation (LDAP, Active directory);
- Online upgrades without downtime;
- Remote installation and support;
- Replicating facilities.

3   CONTENT MANAGEMENT

Management via web browser
OpenIMS® is 100% web based. This means that all documents (content) can be accessed with a web browser. All content revisions you execute locally after which they will be transferred to the server by the OpenIMS® Transfer Agent.

You and your employees can access OpenIMS® from every work station. It is also possible to use the systems facilities from another location, for example your home. If desired security facilities such as SSL or VPN can be brought in. This is what we call working geographically independent.
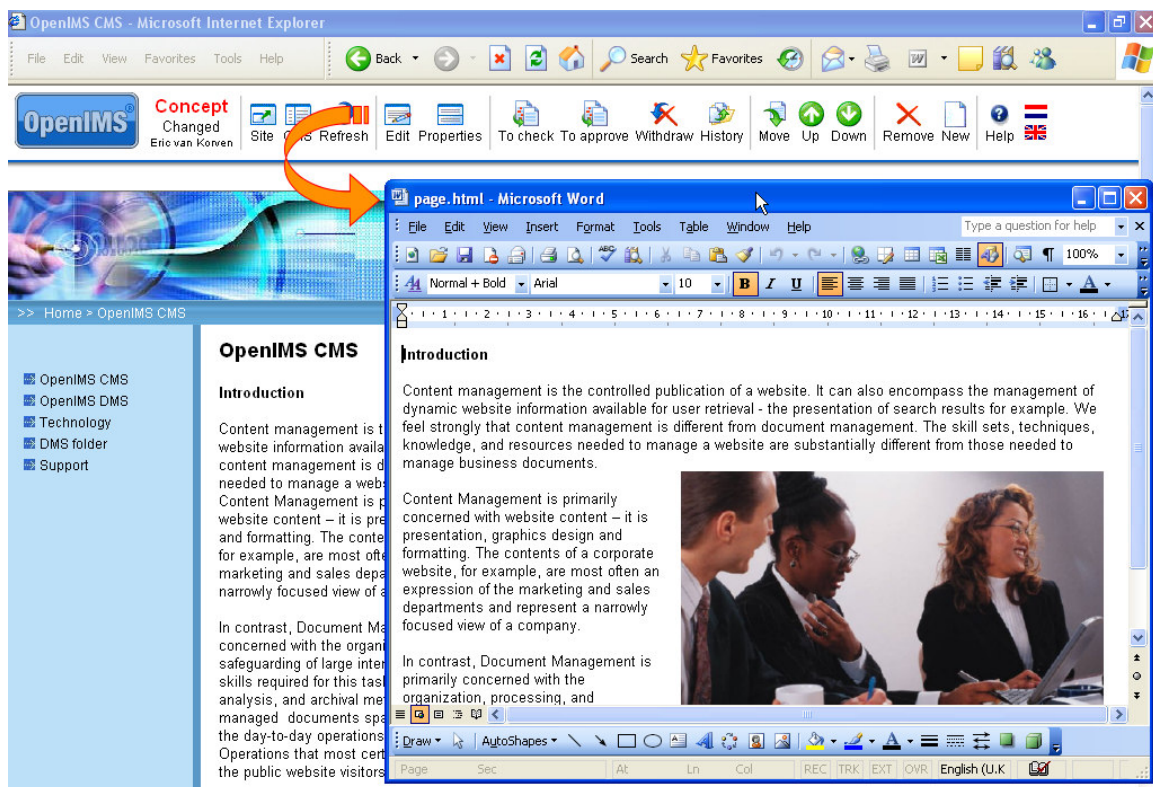Editing content
OpenIMS® CMS standard uses Microsoft Office for editing content.
Surfing in context
After you have logged in onto OpenIMS® CMS, you surf with the use of a web browser over the site to the location where you want to make an adjustment. In the meantime the OpenIMS® taskbar has appeared at the top of every web page. You can edit the content by selecting the "Edit" button (see next image). That moment Microsoft Word will be started with the content of the specific page. Subsequently you can edit the page. After closing Microsoft Word, the new version of the page is automatically transferred to the server and rendered in concept (preview).

If the changes are approved by, for example, another content editor (depending on the workflow) the page can be published.
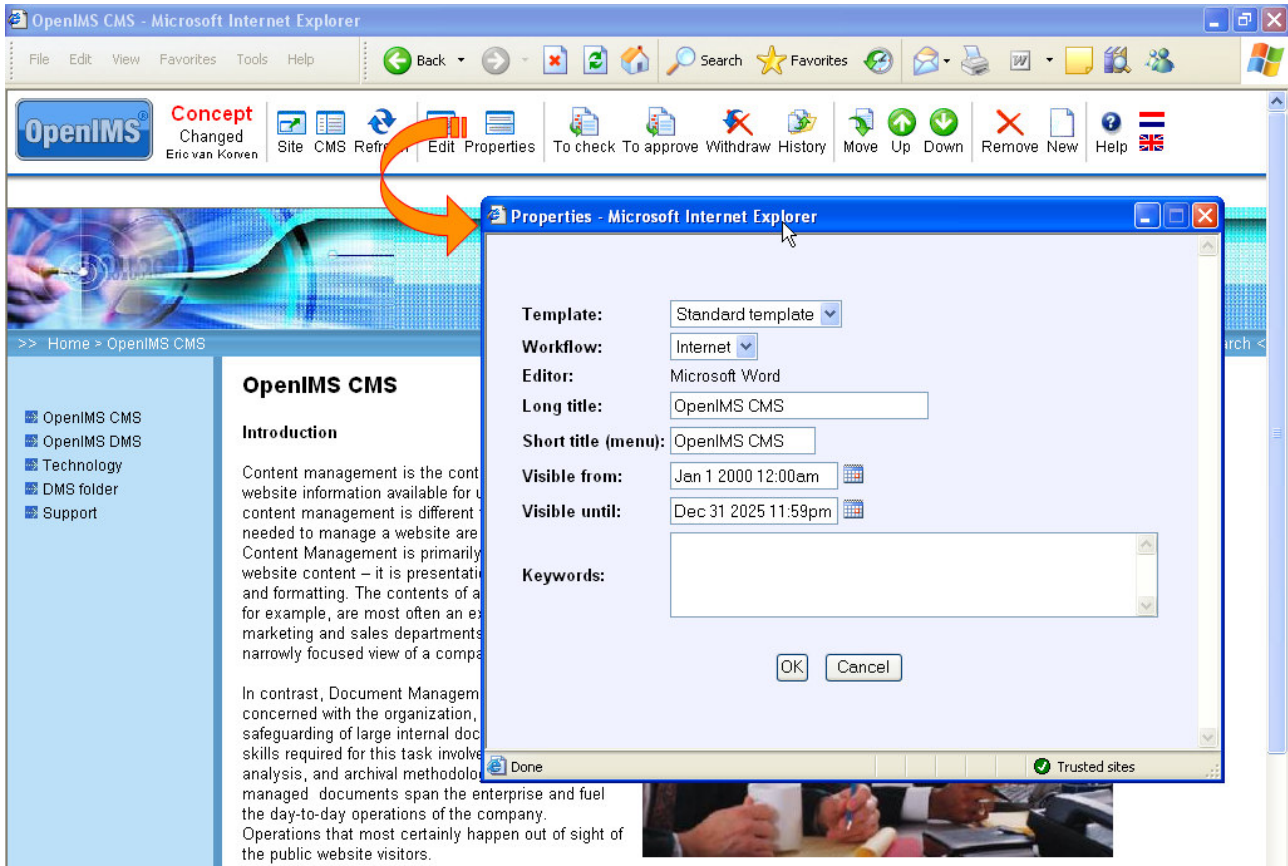

Even objects in Microsoft Word for showing an Excel sheet or a Visio image is supported by OpenIMS®. These objects are also shown as content of the page, for example a price list in Microsoft Excel. The moment the prices have changed you can edit the document again and the various objects will be available directly in the document.

Depending on the editors' rights, he/she can publish a page of pass it on to the next editor.

3.1 Templates

OpenIMS® CMS works with so called templates. In templates the design and standard content (chapter 4) amongst others, will be registered. This can, for example, be applied to pages with job vacancies.

Through access rights linked to workflow profiles, you are able to define which user groups may use which templates. Per template it can be defined which metadata fields should be used. The metadata field are available as properties of a web page to which the specific template is linked, see image. The use of metadata fields is unlimited and can afterwards be changed and expanded. Metadata are indexed by the search engine.
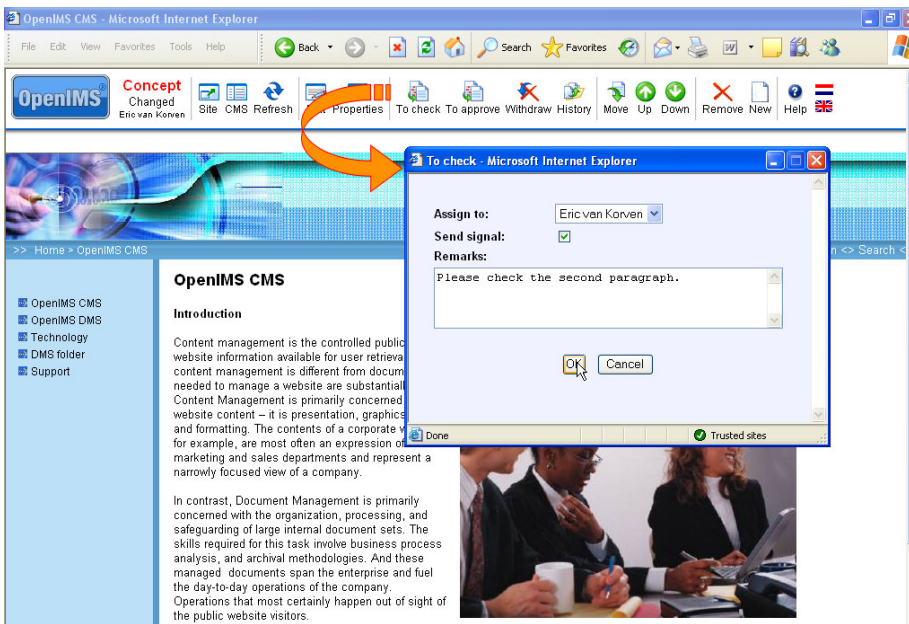

3.2 Site management

As an organisation you can manage the complete structure of the website with OpenIMS® CMS. You can add, replace and remove pages on every level of the website. Of course you need to have the correct access rights.
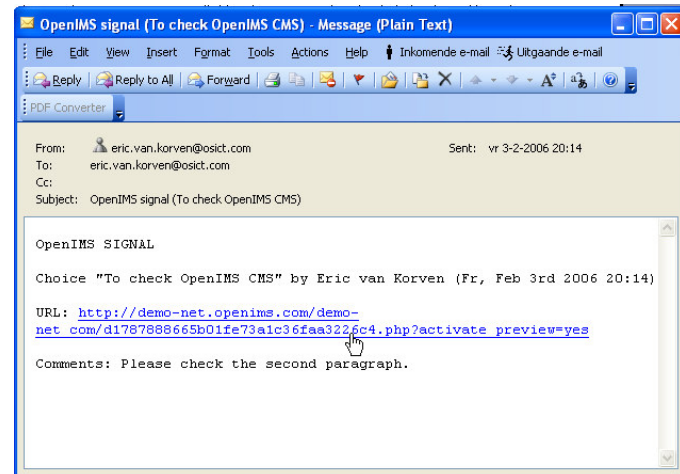
3.3 Notification / Reminder

OpenIMS® has various notification and reminder facilities available to point out to users that a certain activity is expected of them. Notification standard goes via e-mail although a text message (sms) is also possible, see next image.

The reminder function sends a signal to an employee in case a webpage is located in a specific status for too long. This reminder period can be registered at a central level. It is also possible to send a signal to the management so possible delay is pointed out to them.

The employee, who gets the page offered to him/her, receives an e-mail notification including a hyperlink to the page.

3.4   Version management

OpenIMS® CMS has extensive version management available where a complete log is being kept. Not only are the various versions of a page registered but also who changed what and when. Besides that, the workflow status changes and the additional comment lines are logged as well, see image.

3.4.1   Restoring

Every time a page is being edited, a new version of the page will be created. Authorised employees are able to view the old version of a page and possibly restore it.
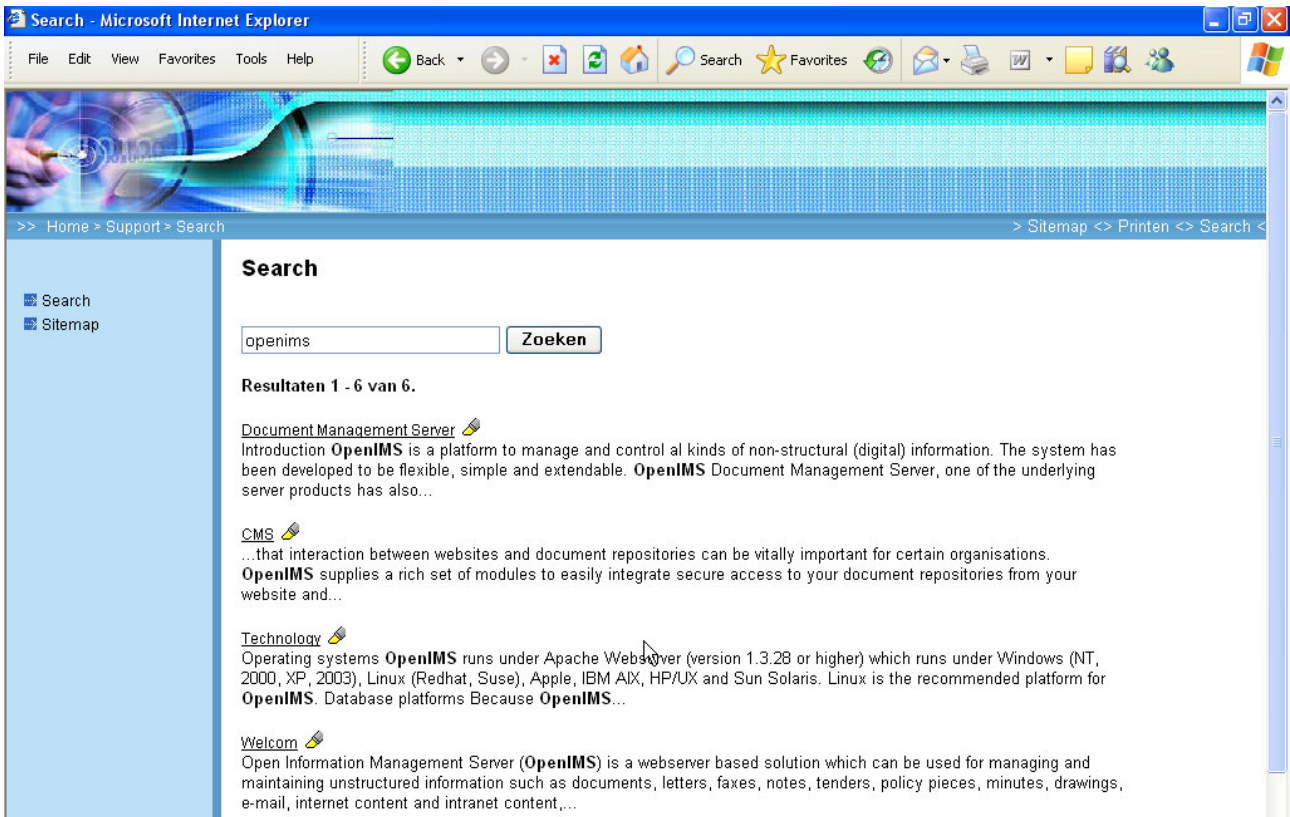
3.4.2   Comparing content of 2 versions

A powerful function is the possibility to compare the changes in text between different versions of a page. This way an author can see who changed what and when, in a simple way. Opening a previous concept version (read-only), view it and undo certain changes (= restoring a version) also belongs to the possibilities.

3.4.3   Withdrawal

The moment you wish to withdraw a not yet published version of a page, you use the "Withdraw" function in the OpenIMS® task bar. When you activate this function, the previous published version of the page is restored.

3.5   OpenIMS® search engine

OpenIMS® has an integrated search engine. This engine will search through both the content and the metadata that is linked to the page. The ranking of the search results is based on the metadata, title (high) and content (low), see image. The ranking can be configured.
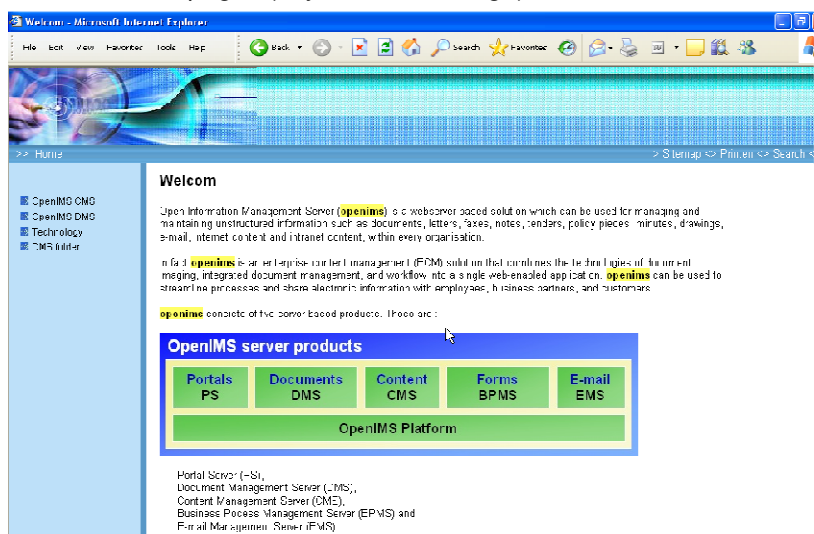

3.5.1   Dynamic summary

After a visitor has entered a term, the results will show a dynamic summary of the content the term is found in. The term is printed bold.

3.5.2   Search term highlighting

It is also possible to highlight the found terms within the pages (in yellow, see image).

OpenIMS®

3.6 Making accessible for external search engines

The practise shows that many CMS systems (8 out of 10) are not fully indexed by a search engine.
The problem is caused by the dynamic composition of HTMSL pages where the content is generated from a database. Because of the method a search engine uses to index a site, only the home page in most cases is indexed. Because of this the information you wish to be found by search engines, cannot be found. Because of the OpenIMS® CMS open architecture that is used to build the website, the site can be fully searched by external search engines.
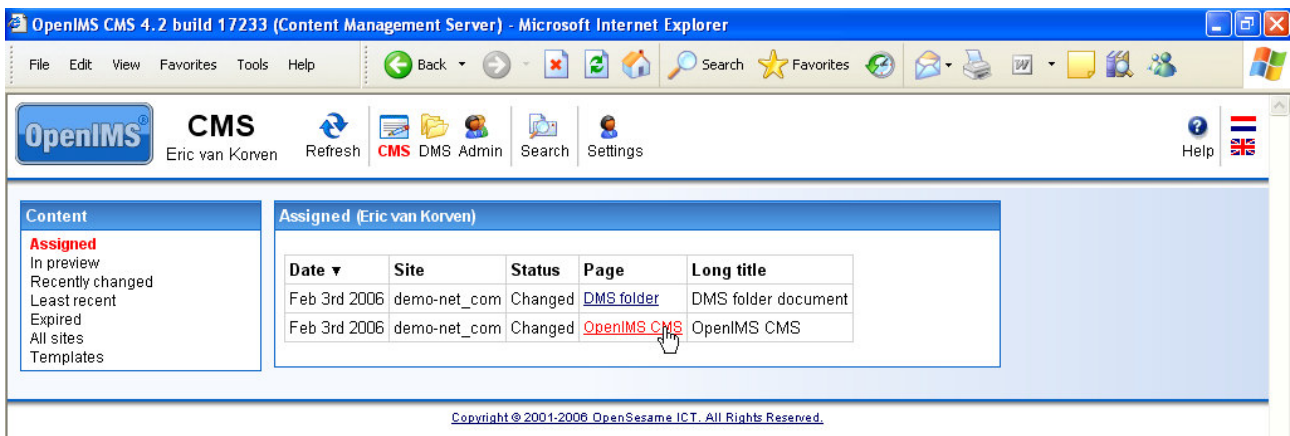
3.7 Scheduling

As you can see in the image in paragraph 3.1 this page contains scheduling. With scheduling you can register publication date and time and the expiry date and time. This is convenient when for example, writing press releases in advance that can only be published on the site at a certain date and time.

3.8 Portal

With OpenIMS® CMS you can manage several domains / websites. Because of this setup you are able to manage for example, an intranet and an internet site via one system. This means that templates and other elements can be used in several sites. In the portal all web pages are collected that you are working on or that are assigned to you by others. These can be web pages of a website but at the same time also of the intranet.

The next image shows the "Assigned" screen with two web pages that need to be dealt with on offer.

3.8.1 Short URL's

The short URL function gives you the possibility to define URL's that refer straight to web pages. Think about <site name>/vacancy department of <site name>/seminar.
The moment a visitor enters such an URL, he/she will directly be guided to the correct webpage.

4   LAYOUT

Within OpenIMS® designers can implement the layout in a simple way without having to program. The design can be registered via the so called design templates. Numerous templates can be made and be applied to certain parts of the site.

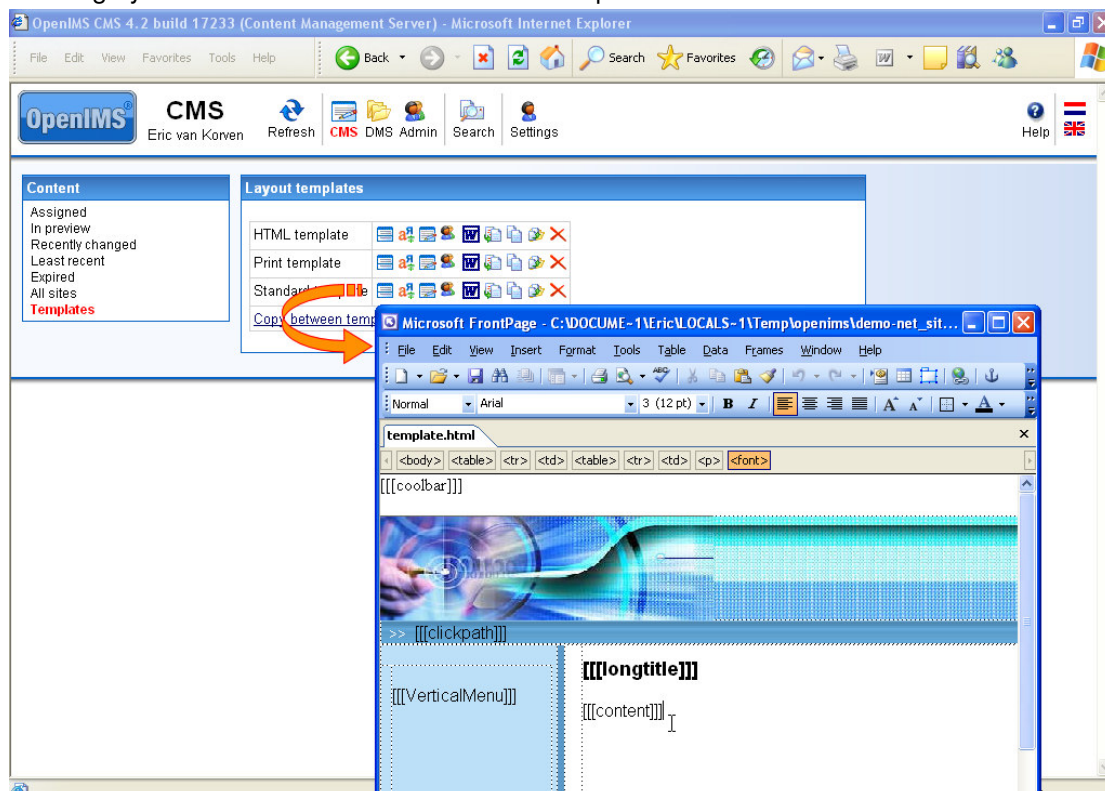## 4.1   Separate code, layout & content

Within OpenIMS® design, content and code are completely separated from each other. This is a big distinction from other CMS systems where code is usually integrated with the design templates.

OpenIMS® CMS has a special facility available for this. OpenIMS® works with HTML-like tags, also called placeholders, to add special functions to the design templates. Think about navigation structures such as showing the main menu of a click path. The function behind the placeholder can be created of edited by a developer. This has the advantage that no fusion of the layout and source code will take place.

The layout can be implemented based on 100% HTML. Because of this the designer can use tools like Microsoft FrontPage or Dreamweaver to implement the layout into the templates. This way changes in function can be applied at one location (the custom made environment) and will subsequently work at all locations

Eventually OpenIMS® makes sure that layout, content and code are processed into a for the most browsers comprehensible HTML page. Because of this a developer can concentrate fully on making the correct function available and a designer can process the design templates. The layout and function can be previewed (concept), tested and afterwards promoted (published) to the production environment.

The design templates are placed in a special environment. A designer needs to be authorised especially for this. In the image you will see the environment with a template that is maintained with Microsoft FrontPage.

The word [[[submenu]]]" is a placeholder which specifies that at that location the navigation menu will be placed.

4.1.1 Staging en testing

The design templates within OpenIMS® are taken into production through the publication mechanism. The designer can first check if the changed design template meets his demands before it is being published.
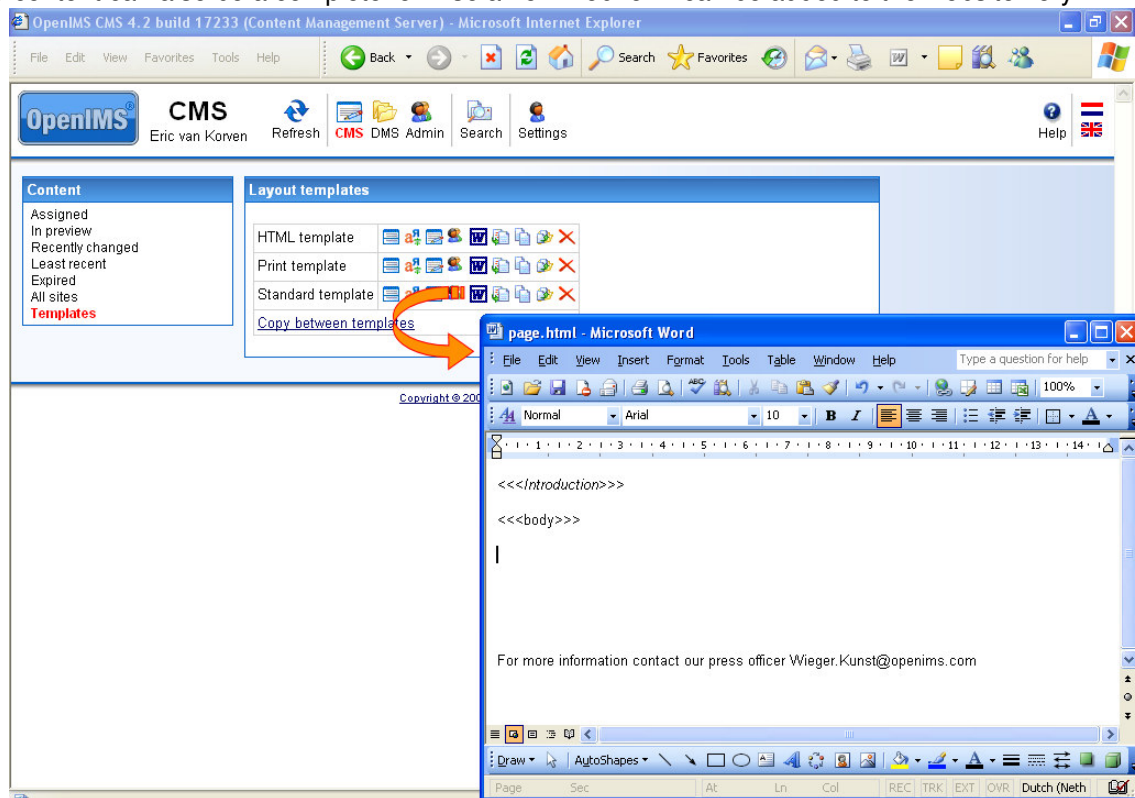
4.1.2 Template management with your favourite tools

The strength of OpenIMS® lies in the fact that users may choose which tools they use for creating content. This is also true for design templates. The designer can open a OpenIMS® template in his/hers favourite HTML editor. This means that for example, Microsoft FrontPage or Dreamweaver can be used for this.

4.1.3 Standard content per template

To every design template a standard content can be administered. This will in most cases be a Microsoft Word document with a fixed layout, for example a standard layout for a press release or a vacancy. Excel or PowerPoint content can also be predefined in a template. The moment an editor wishes to create a new page, he/she can choose from a set of templates and per template for a standard content. The advantage is that an author can quickly add new content to the website within the company layout.
The next image shows how a vacancy content template is created.

The standard content can also be a complete form so a new web form can be added to the website very quickly.

4.1.4 Managing multimedia objects (assets)

Next to a system to manage content, OpenIMS® also has a Document Management System (separate product) where all assets can be registered. Think about all graphic elements that can be used in the design of the website.

The DMS section can manage all types of multi media files like flash, bmp, gif, jpg, wav, mpg or avi. Also company brochures or white papers can be added to the system in for example PDF of DOC format. This way, visitors of the site can always access the most recent version of the document whilst you are working on an updated version in DMS. If you wish to know more about DMS, go to our website or ask for the OpenIMS® DMS white paper.
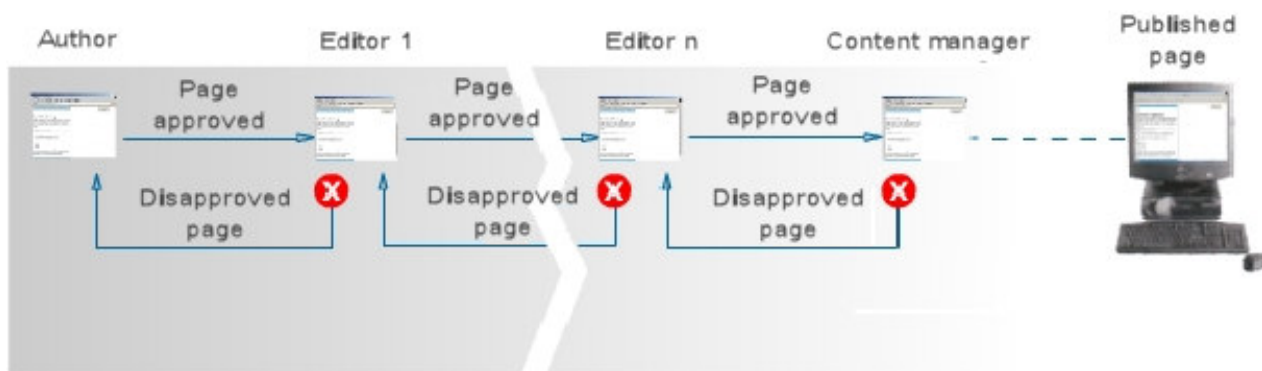
5 RIGHTS AND WORKFLOWS

All OpenIMS® users can be registered in the system. After a user is registered, he/she can be provided with the proper access rights and be added to the proper user groups. OpenIMS® contains workflow profiles that can be configured to your own wished.

5.1 Workflows

A workflow or composition model is implemented in a way the user will not be hindered by it.
The user can only edit or publish the sections he/she has access (rights) to. The moment certain rights are not assigned the corresponding options (icons) will not be available

OpenIMS® has a workflow profile designer available that an organisation can use to maintain the various workflows.

Task based workflows
This means that the authors of the system are only equipped with the proper rights to, for example, edit the press releases section. After the document has been completed, it will be delivered to the content editor manager who will subsequently verify and release it.

Approve and publish
Creating such a procedure takes place through the workflow profile. The profiles can be custom made for an organisation. For every part of the web site it can be determined who can do what. It is also possible for external parties to deliver content that you only need to verify and publish.
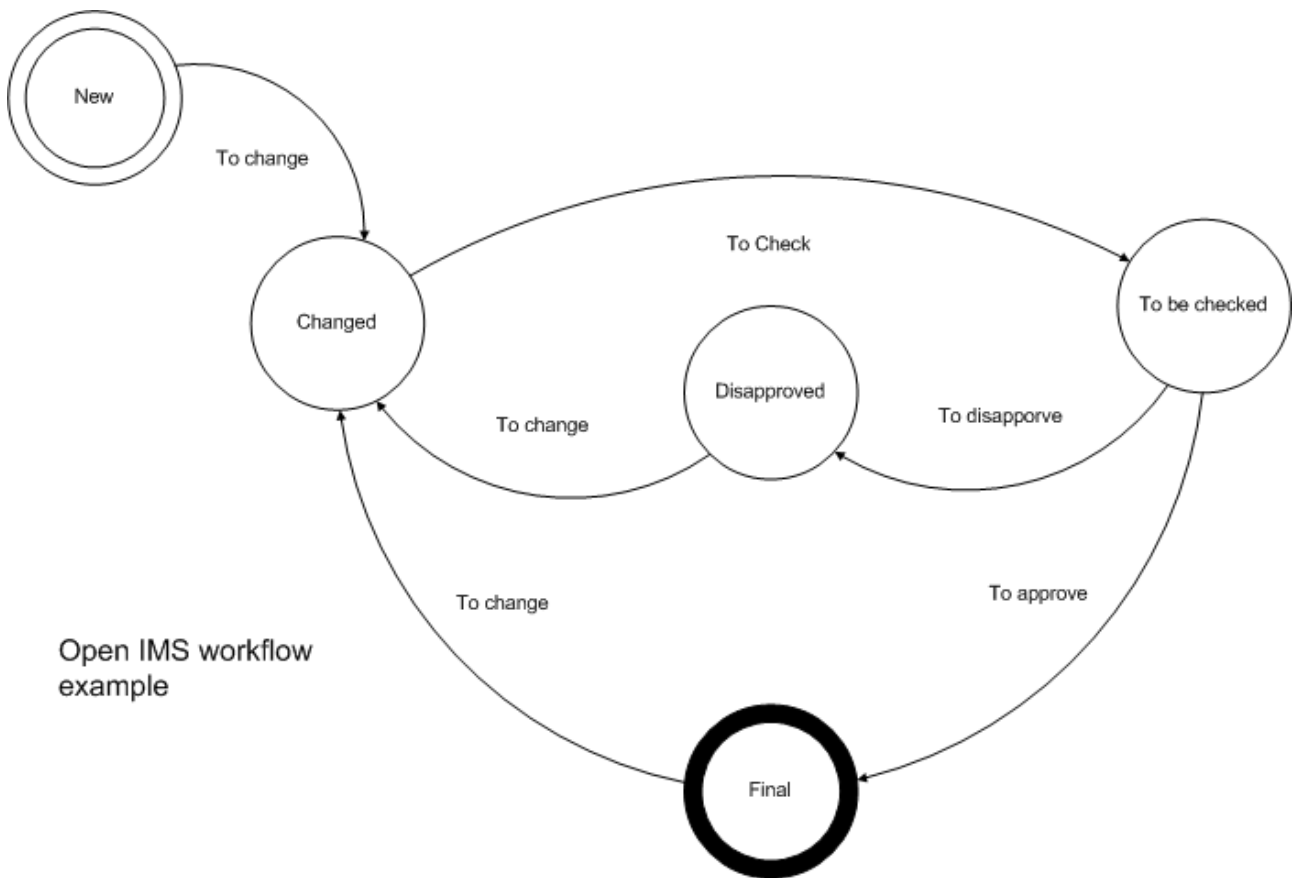
Adjustable characters and groups
OpenIMS® works with user groups to which various tasks can be assigned.
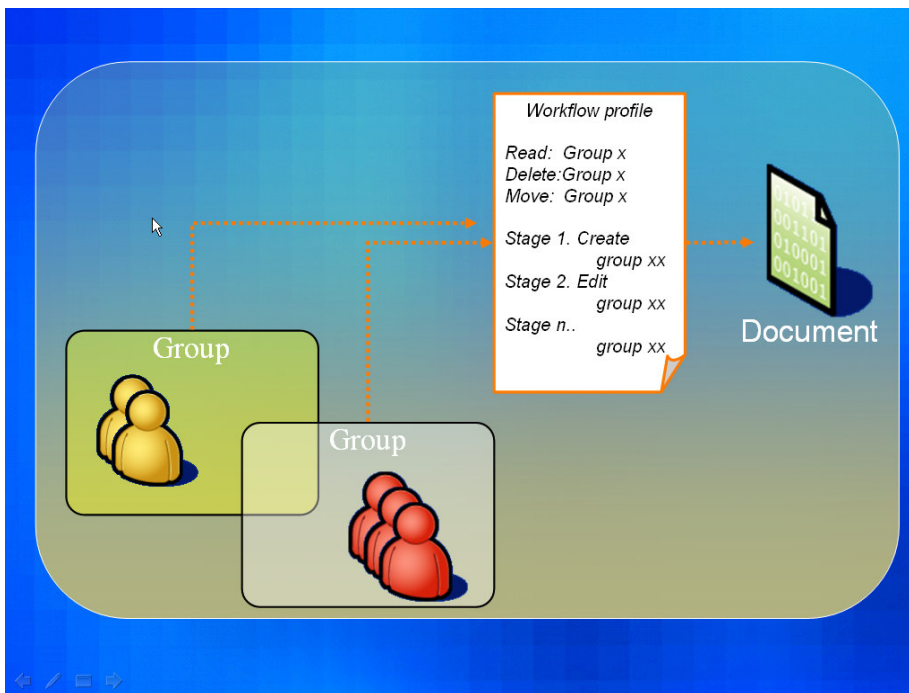
Adjustable workflow profiles
Via the workflow profile designer it is possible to create serial, parallel and conditional workflow profiles. The next example shows a document that contains the status "for verification" with the options "reject" and "publish". When the user chooses "reject", the document will be placed in the "rejected" status.

While placing or creating new documents a workflow profile will be assigned to a document. From that moment the document will be guided through the organisation via the workflow profile. The workflow profiles are defined by a webmaster.

Open IMS workflow
example

Workflow profile

Read: Group x
Delete:Group x
Move: Group x

Stage 1. Create
            group xx
Stage 2. Edit
            group xx
Stage n..
            group xx

Group

Group

Document

For every workflow it can be defined who may use it in which phase of the specific page.

A page can be located in a number of free definable stages per workflow. Per stage the organisation can determine who may do what, see image.

OpenIMS® comes delivered with four standard workflow profiles. An organisation can use these profiles as a starting point and expand, copy, remove, adjust them as she sees fit.

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5.2 Rights

The users' rights can be defined via the user manager. OpenIMS® knows the following rights:

- Creating a new page;
- Removing a page;
- Moving a page;
- Previewing a page;
- Reading a page.

All other rights are registered in the workflow profile.
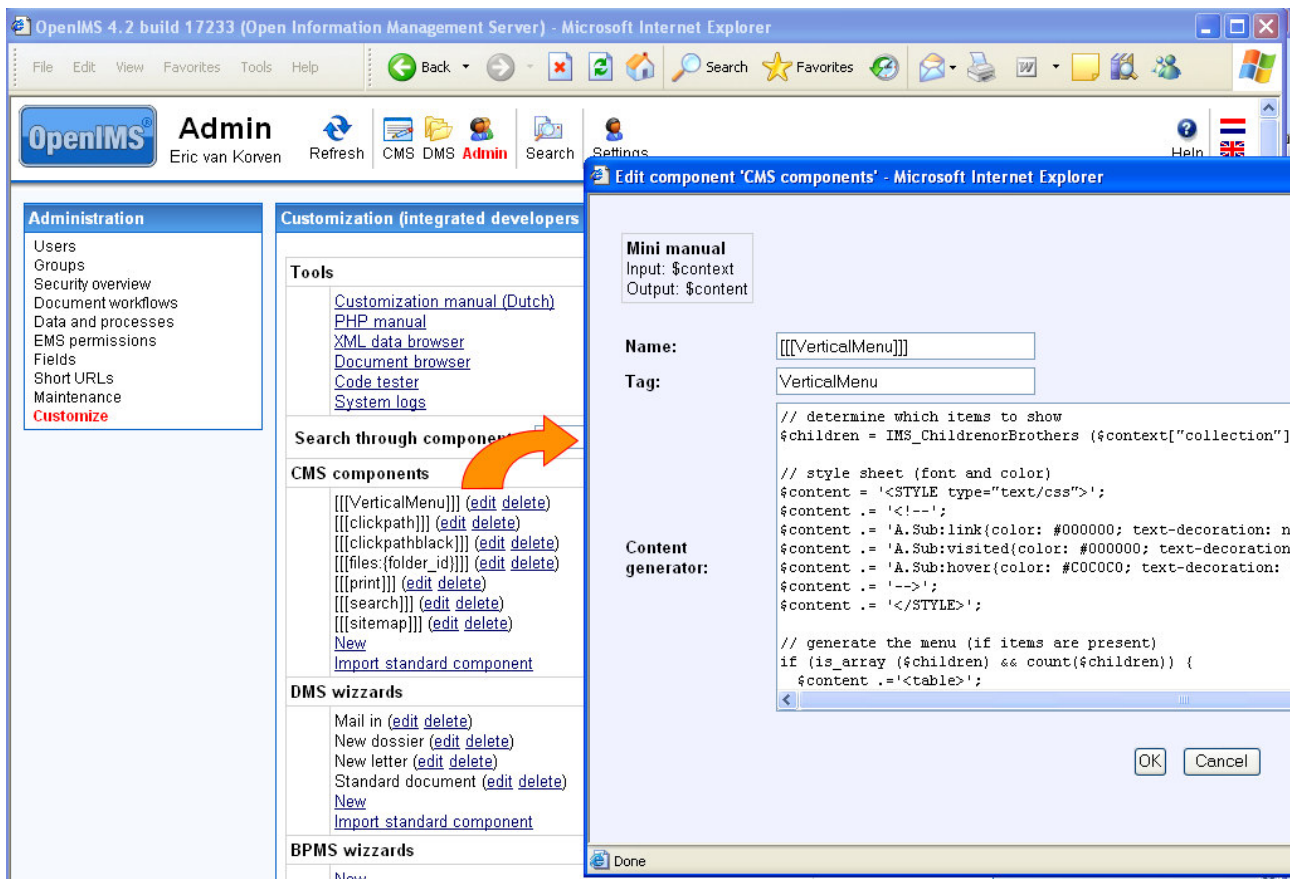
Support for LDAP
OpenIMS® supports LDAP consequently you can use the directory services from for example Microsoft Active Directory so usernames and access codes can be managed centrally.

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6   CUSTOM FUNCTIONALITY

With most Content Management Systems special functions like the navigation structure need to be placed in the layout of a website with the help of application codes (scripts). This comes with some very annoying disadvantages. If, for example, an adjustment needs to be made, you need to search the layout for the specific script. If a certain function returns at several locations, many pages need to be searched and adjusted. This very time consuming and there is a high risk for making mistakes.

OpenIMS® CMS has a solution for this. In OpenIMS® there is one central location where application code is placed and can, whenever necessary, be called upon from the various pages through template management. This happens by installing a link in the form of a placeholder. If a functional adjustment is necessary then changing the application code on one location sufficient to have effect on the complete site. Developing
The OpenIMS® environment has its own IDE (Integrated Development Environment). There are numerous standard components available which can help a developer to quickly develop a new function. Think about navigation menus, a sitemap or a click button.

With the assistance of IDE, developers can create and adjust custom made (PhP) components. Subsequently a designer can integrate these components in a template through the placeholder concept.

6.1   Using existing Open Source programs

Because OpenIMS® is based on Open Source technology (built in php) the possibility to insert existing Open Source programs is taken into account. This means that a developer can make an application available at a random location on the site. This can be a link to a database or the processing of an order.

Even applications that are made available via the World of Open Source can be incorporated. An example is the phpBB platform that can be fully integrated with OpenIMS®.

7   STANDARD CMS MODULES

OpenIMS® has numerous standard components, or modules, available. The most important ones are described in this chapter.

7.1   Web fOrms

What you can do with it.
With the help of the web forms module you can easily place forms on your site. The moment a visitor fills in a web form, an e-mail notification will be sent and the entered data are saved in a database. This means that at any given time you can collect a overview of all filled in information structured in, for example, a excel sheet.

How it works.
The forms work with predefined fields. This means that you only have to place the correct fields using the previously mentions placeholders. You can manage the web form in Microsoft Word.

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7.2   Mini database

What you can do with it.
Making data sheets accessible and searchable. Think about an address list from employees, phone numbers, lists with article numbers, etc. Numerous lists like these are floating around within an organisation. With the mini database you can process these lists in you intranet or website with the help of an ICT specialist. The mini database makes sure that you are able via a simple interface to search and sort on every available column.

How it works.
Using a placeholder you place the component on your site and maintain it with Microsoft Excel. The mini database adjusts itself dynamically to the number of columns. It is possible to process e-mail addresses or internet domain names in the lists.

7.3   Forum

What you can do with it.
A forum is a place where people can have a debate with each other by placing messages for everybody to read. The advantage of a forum is that not everybody needs to be present simultaneously.

How it works.
Using a placeholder you place the component on your site. An administrator watches the forum and can delete or edit messages.

7.4   Poll

What you can do with is.
Visitors of a site may respond to a certain statement you have placed on your site. After a reaction the visitor instantly receives feedback. This means that the visitor gets to see how the other visitors responded. Think about yes/no statements.

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How it works.
Using a placeholder you place the component on your site. An employee places the text of the statement and possible options.

7.5 Responds to a statement or page

What you can do with is.
With this option you enable visitors to respond to the contents of a certain page.

How it works.
Using a placeholder you place the component on your site. A content manager receives an e-mail notification the moment a visitor responds and is able to edit or delete the responds.
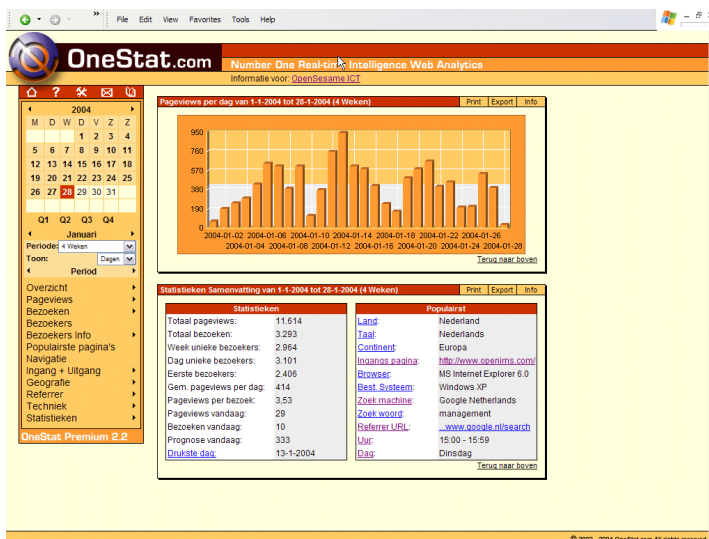

7.6 Statistics

What you can do with is.

With the use of an online report facility, you can gain insight into the behaviour of your visitors. OpenIMS® works together with, for example, Onestat which offers a complete online report environment.

How it works.
A piece of software will be attached to every page that makes sure that every retrieved page is registered to the database. Based on the database overviews are made that you can consult online.

7.7 News feeds

What you can do with is.
To provide a site with new information on a daily basis, you can use so called news feeds. A news feed will be registered custom made and gives you relevant information daily, for example all press releases related to a certain subject or customer groups. A news feed works fully automated, this means that after placing, hardly any management activities are necessary.

How it works.
The news feeds are processed in the custom made environment and can then be placed on the site.

8 CONTACT

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