

# **DIGIMAKER 6.0**



## **Digimaker 6.0 Functional Overview**

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## General Features

### **Single comprehensive interface**

Digimaker Server Manager is used for configuring both the Digimaker CMS, and Digimaker based websites on servers that host Digimaker CMS. It displays detailed information related to all the websites installed on IIS and enables you to create, delete, manage, and upgrade Digimaker websites.

**Entirely browser based** – For access to the administration interface, no client software is required other than a standard web browser (Internet Explorer 6.0+ and Mozilla). Through these two browsers, most common desktop operating systems are supported, and operation in organization-wide Standard Operating Environments (SOE) is simplified. To use Server Manager however, the user needs a fully configured Digimaker 6.0 server environment.

As all updating is browser-based, anyone with appropriate access can maintain the system from any location where there is a web connection, at anytime they please.

**Object based architecture** – every item associated with your web site or intranet is considered an object within the Digimaker CMS, including links, images, documents, menu items and articles. You can therefore easily re-use parts of content at a fine level of granularity, rather than duplicating it. Further advantages include the fact that access can be controlled at the object level rather than at the site or page level alone.

**Database Abstraction** – Digimaker CMS uses the Microsoft SQL Server as its data store. It works with MS SQL 2000 and MS SQL 2005.

## ***Content Creation***

**User friendly** – provides intuitive menuing, and a WYSIWYG editor providing a simple word processor-like editing interface.

**Content abstracted from design** – ensures consistent look and feel through the use of design templates which support style sheets.

**Multiple designs** – allows site developers to define the user experience by choosing between multiple designs when visiting your site e.g. Printer friendly design, highly web accessible design, low bandwidth design etc. This functionality may be extended to support multiple presentation channels.

**Spell checking** – includes visual spell checker embedded in WYSIWYG editor.

**Multiple language support** – includes support for content in multi-byte character sets including UTF-8.

**Clean HTML** – incorporates XHTML compliance in the Digimaker CMS WYSIWYG editor, which automatically cleans HTML output for better performance, compliance with accessibility standards and better rankings with search engines.

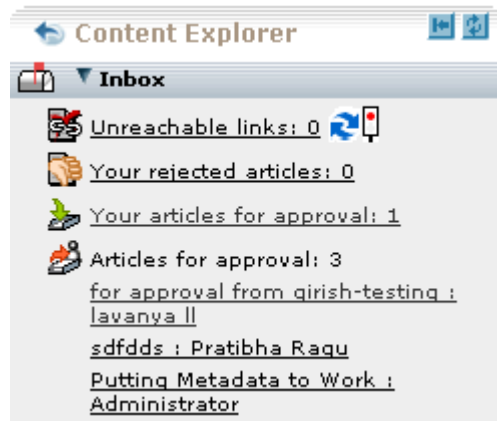
## ***Content Management***

**Reusable content** – allows you to use the same object in multiple areas of a site. Any changes made to content that is used on multiple pages will be updated on all pages.

**Image Library and Document Library** – allow you to store commonly used images and files in a single locations and display them in multiple sites. Digimaker CMS allows you to upload and embed graphics and files (including rich media) – in fact, almost any standard file type is

supported e.g. Word, Excel, PDF, MPEG etc. This allows for the easy creation of document libraries and image libraries. Using the bulk upload facility, content authors can upload multiple files in the form of archives into a library.

**Link maintenance** – integrity management tools ensure no broken links appear on your site when content is moved or deleted. The link checker periodically checks for broken links and notifies the user.



Content Explorer

**Content life** – allows you to set the practical life of content within the CMS, which will automatically archive out of date content.

**Content migration tools** – The WYSIWYG editor has an added advantage of cleaning much of the Microsoft Word formatting, allowing a more straight forward content migration from multiple formats. Alternatively you can use the Digimaker Office Integration client to edit and compose articles using Microsoft Word 2003.

**Metadata** – allows you to apply metadata to parts of your website (e.g. Dublin Core).

## ***Content Collaboration***

**Simple workflow** – includes a three-step, publish process. A new article can be marked as 'Draft' and edited at a later time; it can be marked as 'For Approval'. User with sufficient rights can approve content and finally an approved article can be 'Published' on the website.

**Article Check in and Check out** – all assets must be locked prior to making changes. This feature is essential to a multi-user authoring environment, as it prevents multiple users from working on the same piece of information at the same time. Digimaker CMS integrates this feature into the article authoring interface seamlessly.

← Write Article

Content Properties Relations Preview History Comments

This article is checked out by Ashish Kalia.

Headline\*

Data dangers dog hard drive sales

Abstract

Letters, resumes, spreadsheets, phone numbers and e-mail addresses were all found on storage hardware bought and analysed by forensics firm Disklabs. Also recoverable were temporary files from net browsers which contained login details and passwords for websites and even online bank

Save CheckIn Undo Checkout  
Check-In Check-Out

**Article Comment-** The **Comments Tab** is a new addition to the article detail page and provides the functionality to add comments to an article.

← Write Article

Content Properties Relations Preview History **Comments**

Add comment

this is a smaple comment

Add Comment

Article status (Current: Published)

Save as: Published

Save

Article Comments

## Publishing

**Preview** – allows you to easily preview content in context prior to publishing.

**Timed release** – allows timed release on article through display properties. (e.g. “Show Date to “Expire Date”) to be set to occur at any time in the future. This allows the content authors to display and remove content in a timed manner.

Display properties

Priority

Show Date   09 ▾ : 00 ▾

Expire Date   00 ▾ : 00 ▾

Display Properties

## Version Control and Rollback

**Version control** – includes a comprehensive versioning tool providing automatic version numbering when users make any changes to an object (articles, documents and images only).

**Rollback** – Appropriately authorized users may view and restore articles, documents in the site as they were at any given time in the past.

Version	Create Date
<input type="button" value="Ver 4"/> ▾	18/03/2005
<input type="button" value="Rollback"/>	3/2005
<input type="button" value="Ver 2"/>	18/03/2005
<input type="button" value="Ver 1"/>	18/03/2005

Rollback

**Authentication** – All Digimaker CMS Administrator Interface users must be authenticated. They may also be authenticated against an Active Directory server. You can also deny public read access to a site or section of a site, thus creating a “Members Only” area where users must log in before gaining access.

**Granular permission control** - access privileges may be controlled individually for all content (objects) for different users and groups (roles).

## Other Features

**Cache** – integrated cache management ensures dynamic pages may be served quickly and efficiently depending on the profile of the user.

**Portal functionality** – users may have a customized experience seeing only the navigation and page content that matches their profile. Allows web authors to make personalized content that can welcome known users by name.

**No practical limit on the number of sites and pages** - the only limitations relate to the capacity of the server hardware and database software, and to the issues associated with managing highly complicated sites.

**RSS Feeds** – allows you to consume RSS feeds as articles using the RSS FEEDS option.

**General**

---

General Properties	
Feed name *	<input type="text"/>
URL *	<input type="text"/>
Placement *	<input type="button" value="Change placement..."/>
Publishing security	<input type="text" value="Publish articles manually"/> <input type="button" value="v"/>
Publish in these menu items *	<input type="button" value="Select..."/>
"Read more"-text	<input type="text" value="Read more"/>

Retrieval Properties	
Retrieval frequency (minutes)	<input type="text" value="Manual"/> <input type="button" value="v"/>
Source signature	<input type="text" value="Logo from source"/> <input type="button" value="v"/>
Number of items to keep in list	<input type="text" value="1"/> <input type="button" value="v"/>

---

RSS Feeds

### ***Extensibility and Integration***

New functionality can be added to the CMS through the use of Digimaker CMS SDK. You may choose to contact Digimaker services for more elaborate solutions.

**Active Directory integration** – Digimaker Directory Services Integration replicates the structure of Microsoft's Active Directory into Digimaker's corporate structure. It also updates existing objects in Active Directory with information that has changed in Digimaker.

When integrated with Active Directory, the integration also includes authentication using Windows Integrated Security, or simply by using forms authentication which authenticates with Active Directory in the background.

## Digimaker CMS Look and Feel

This chapter introduces you briefly to the look and feel of the Digimaker content management system.

### Dual Interface

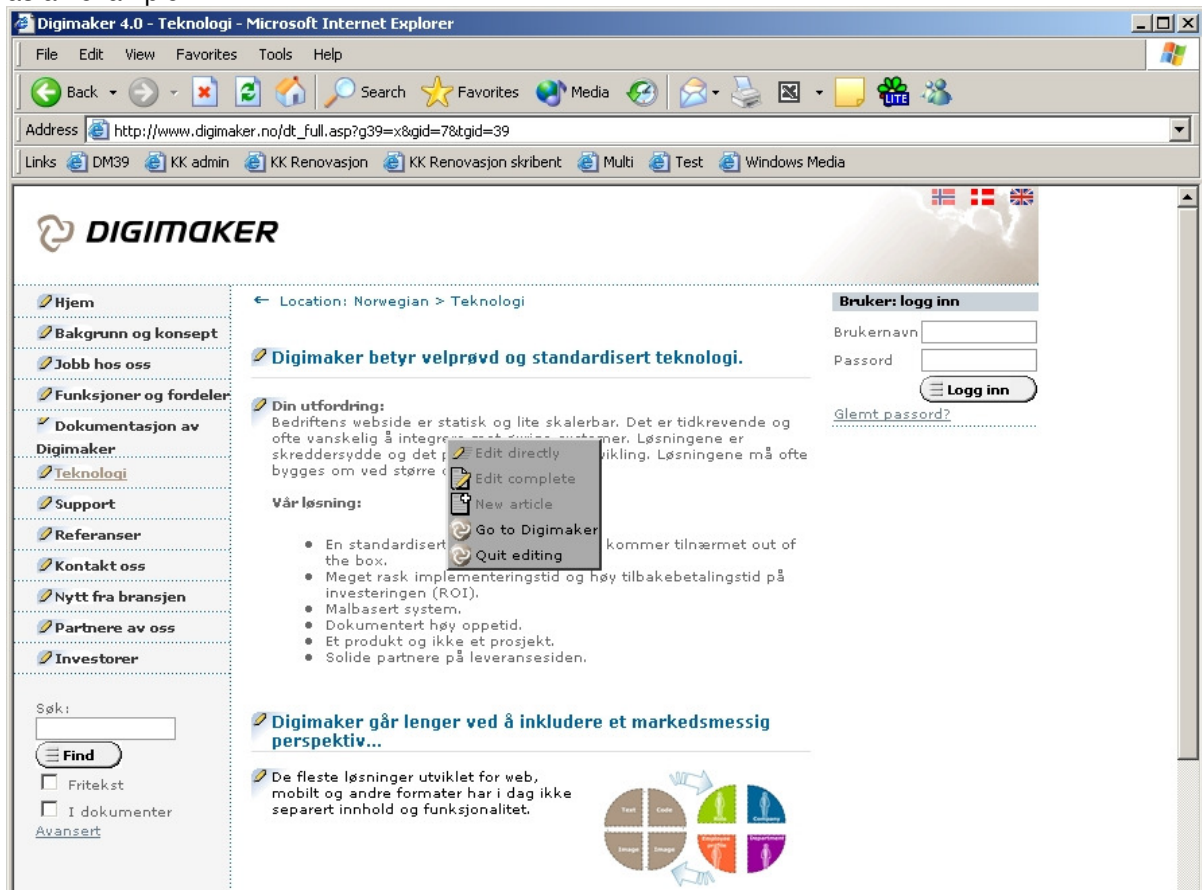
Digimaker CMS allows users to manage content using one of two interfaces:

**Direct Editing Interface** - sometimes called “front-end editing”, this interface allows users to edit the contents of a page with little, if any, Digimaker CMS training. This is a simple interface designed for use by people with limited computer skills.

**Administration Interface** - this interface provides access to the full contents of the Digimaker CMS system and all of its functionality. The interface is still non-technical but does require training to be able to operate properly. Its complexity could be compared to a program like Dreamweaver.

### Direct Editing Interface

The Simple Editing Interface is designed to allow users with limited computer skills to edit content quickly and easily. It has a greatly reduced functionality compared to the administration interface, but still allows access to tools. We can demonstrate the functionality by using the following page as an example:



The screenshot shows a Microsoft Internet Explorer browser window displaying the Digimaker CMS interface. The browser title is "Digimaker 4.0 - Teknologi - Microsoft Internet Explorer". The address bar shows the URL "http://www.digimaker.no/dt\_full.asp?g39=x&gid=7&tgid=39". The page content includes a navigation menu on the left with items like "Hjem", "Bakgrunn og konsept", "Jobb hos oss", "Funksjoner og fordelene", "Dokumentasjon av Digimaker", "Teknologi", "Support", "Referanser", "Kontakt oss", "Nytt fra bransjen", "Partnere av oss", and "Investorer". The main content area features a "Bruker: logg inn" section with fields for "Brukernavn" and "Passord", and a "Logg inn" button. Below this is a section titled "Din utfordring:" with a list of bullet points and a "Vår løsning:" section. A context menu is open over the "Din utfordring:" section, showing options: "Edit directly", "Edit complete", "New article", "Go to Digimaker", and "Quit editing". At the bottom right, there is a circular diagram with four segments labeled "Text", "Code", "Image", and "Page".

Direct Edit

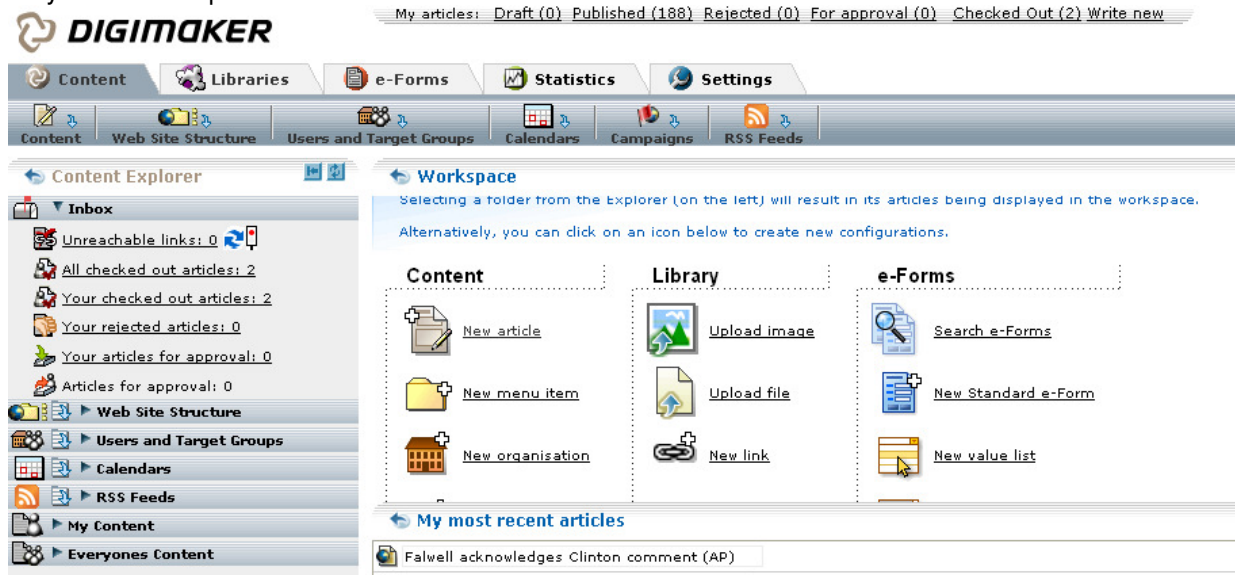
Direct edit makes the editorial process easier and faster. It turns users into website editors without much training. It also allows you to enable users to edit site content without giving them access to the Digimaker administration interface.

If you are logged in to the system and have a **Role** which allows you to use the **Direct Edit** facility, you will see editable page 'hot-spots'. These are identified by a grey dotted line surrounding the editable sections of page content.

To start editing, right-click on the content area you wish to change. A pop-up menu will be displayed. Select **Edit directly** and you can begin changing the selected content through the web page itself. When you have finished editing the content just click out of the dotted area with the cursor and the changes will be published.

## Administration Interface exhilarating

To access the Administration Interface of Digimaker CMS, you will be asked to enter the website URL in your browser and append "/digimaker". Once logged in you will be redirected to the page on your site with place holders.



Administration Interface

### Administration Interface Main Window

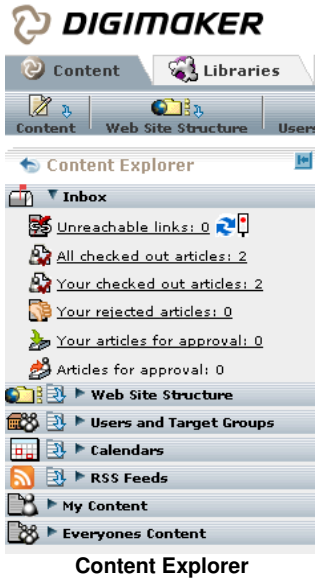
The Administration Interface window has two main sections, which are highlighted in the figure above. It is composed of a **Main Menu Tab**. The tabs will be limited, depending on the user's role and access privileges.



Main Menu Tab

### Content Explorer

The left side of the window is used for the **Content Explorer**. The different elements can be expanded or minimised by clicking on the line with the element name on it. The operation of the **Content Explorer** should be familiar to anyone who has experience using the Windows operating system.



Content Explorer

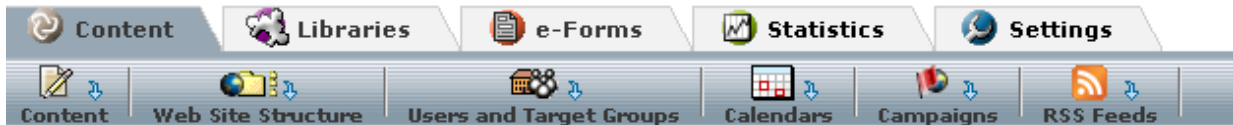
The **Workspace** is the screen on the right hand side of the window and allows you to access commonly performed tasks.

**Workspace**

This is the area where you can create and edit articles for display on your website. Selecting a folder from the Explorer (on the left) will result in its articles being displayed in the workspace. Alternatively, you can click on an icon below to create new configurations.

Content	Library	e-Forms
<a href="#">New article</a>	<a href="#">Upload image</a>	<a href="#">Search e-Forms</a>
<a href="#">New menu item</a>	<a href="#">Upload file</a>	<a href="#">New Standard e-Form</a>
<a href="#">New organisation</a>	<a href="#">New link</a>	<a href="#">New value list</a>
<a href="#">New Department</a>	<a href="#">New Banner</a>	<a href="#">New smart value list</a>
<a href="#">Add person</a>		<a href="#">New confirmation page</a>
<a href="#">Add RSS Feed</a>		<a href="#">New Content Extension</a>

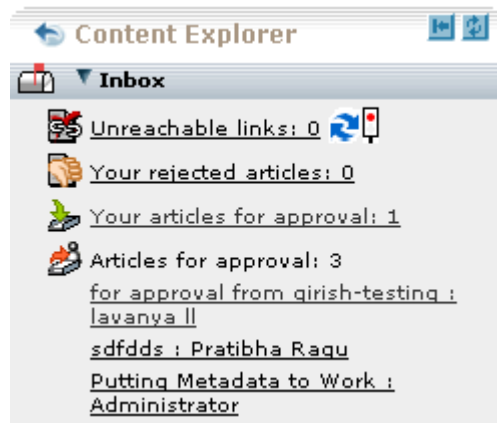
Workspace



### Content Tab

**Content Tab**– This is the main tab within the Digimaker CMS Administration Interface. You can add new objects here, or select existing assets so that you can edit their attributes which are shown in the panel on the right hand side of the screen. The majority of work in maintaining your website is undertaken on this tab.

### Inbox



### Inbox

At the top of the **Inbox** information on unreachable links is displayed. In the Inbox you will find messages from other system administrators/editors, in addition to:

#### **Your articles waiting for approval**

Here you find articles sent for approval from other users of Digimaker.

#### **Your rejected articles**

Here you find articles which have been to approval and been rejected.

#### **Articles awaiting your approval**

Here you find articles waiting for your approval.

#### **All articles awaiting approval**

Here you find all the articles waiting for approval.

By clicking on the **Inbox** item you wish to review, you will be presented with a list of articles with the relevant status. These are displayed in the **Workspace** area.

## Detailed features overview

This chapter describes the features of Digimaker CMS in more detail than in previous chapters.

### **General Features**

#### **Browser Based and SOE Compatible**

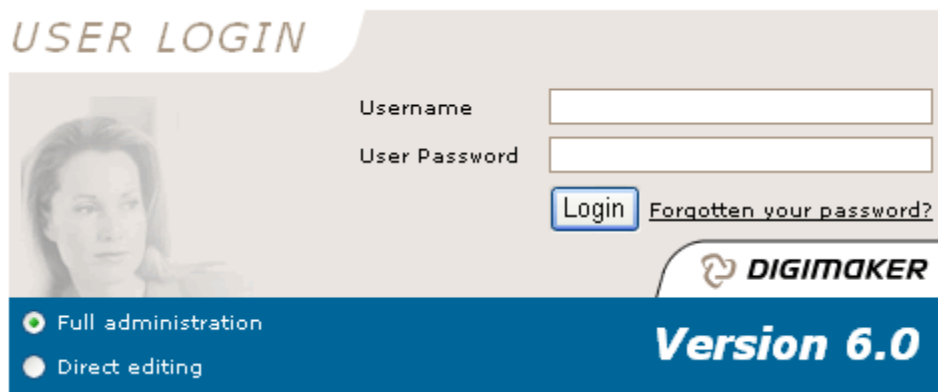
Digimaker CMS is entirely browser based and is therefore compatible with a wide range of operating environments. Editors require access to Internet Explorer 6 (Windows only) or Mozilla (e.g. Firefox). Content created in Digimaker CMS can be viewed with all major web browsers on the PC, Mac and LINUX platform as website browser compatibility is entirely determined by the design loaded to the CMS.

#### **Extranet access**

Many clients require some or all of the authoring system to be accessible to users outside the office, via an extranet. Authors may include staff working remotely (perhaps overseas) or trusted business partners.

The Digimaker CMS administration interface is entirely browser-based so the full functionality of the CMS is available to anyone with a recent version web browser and appropriate security access.

Editor access to Digimaker CMS may be secured through the following mechanisms:



Login Screen

**Digimaker Forms Authentication-** This type of authentication is also referred to as Normal Authentication or Forms Authentication. The authentication occurs using forms. The user is authenticated by entering a username and password for Digimaker. These credentials are then authenticated through Digimaker.

**Digimaker and Directory Service Forms Authentication-** This type of authentication is very similar to Digimaker Forms Authentication where the user enters a username and password. It can be used for both authenticating with Digimaker, or the directory service. In the log-in box for Digimaker, the user can select to authenticate with Digimaker, or by the domain name selected in a drop-down list. This login box is somewhat similar to the Windows log-in box display when logging onto a Windows computer. If the user selects a domain to authenticate with, the user should supply his or hers Active Directory credentials. Digimaker will then use the directory service for authentication.

**Windows Integrated Authentication**-The Windows Integrated Authentication is a seamless form of authentication as it, uses the credentials already established when the user logs on to a domain. This authentication requires that the web server is in the same domain as the user or in a trusted domain.

## ***Architecture***

Digimaker have chosen “object based” architecture for Digimaker CMS rather than the “page based” structure. The concept of “objects” is an important one to understand, as it is this architecture that makes much of the functionality possible in Digimaker CMS. Digimaker CMS treats all content in your system as objects. There are many different types of objects, but common examples include: Articles, Documents, menu items, links and calendars.

One example of the many advantages of an object based system is the ability reuse content in many places. Images from one page may be reused in other parts of the site. Or a calendar of seminar dates from your “Events” section could be re-used in a “What’s Coming Up” section on your home page.

Further advantages include the fact that access (security restrictions) can be controlled at the object level rather than at the site or page level alone. This has the powerful result of allowing you to control all aspects of user access right down to the different parts of a single page.

## ***Multi-user Environment***

Digimaker CMS fully supports a multiple author environment. It includes:

- Check-in and check-out on articles and documents before editing.
- Comprehensive security features allowing you to define the functions available to each user, and the assets to which they have access.
- Transparent versioning including who made which change and when in the form of history.

## ***Content Creation***

### **Powerful authoring environment**

Digimaker CMS provides a powerful authoring environment that is highly visual and intuitive to use. Usability is improved through a combination of several strategies including:

- Where possible, the use of standard software conventions to make learning the system easier. For example, the **Content Explorer** looks like Windows Explorer and the WYSIWYG editor looks like standard word processing software.
- The provision of a filtered functionality view. Digimaker CMS allows administrators to restrict the amount of functionality a content author can see so they only need to learn the elements that are relevant to their job.

### **User-friendly interface**

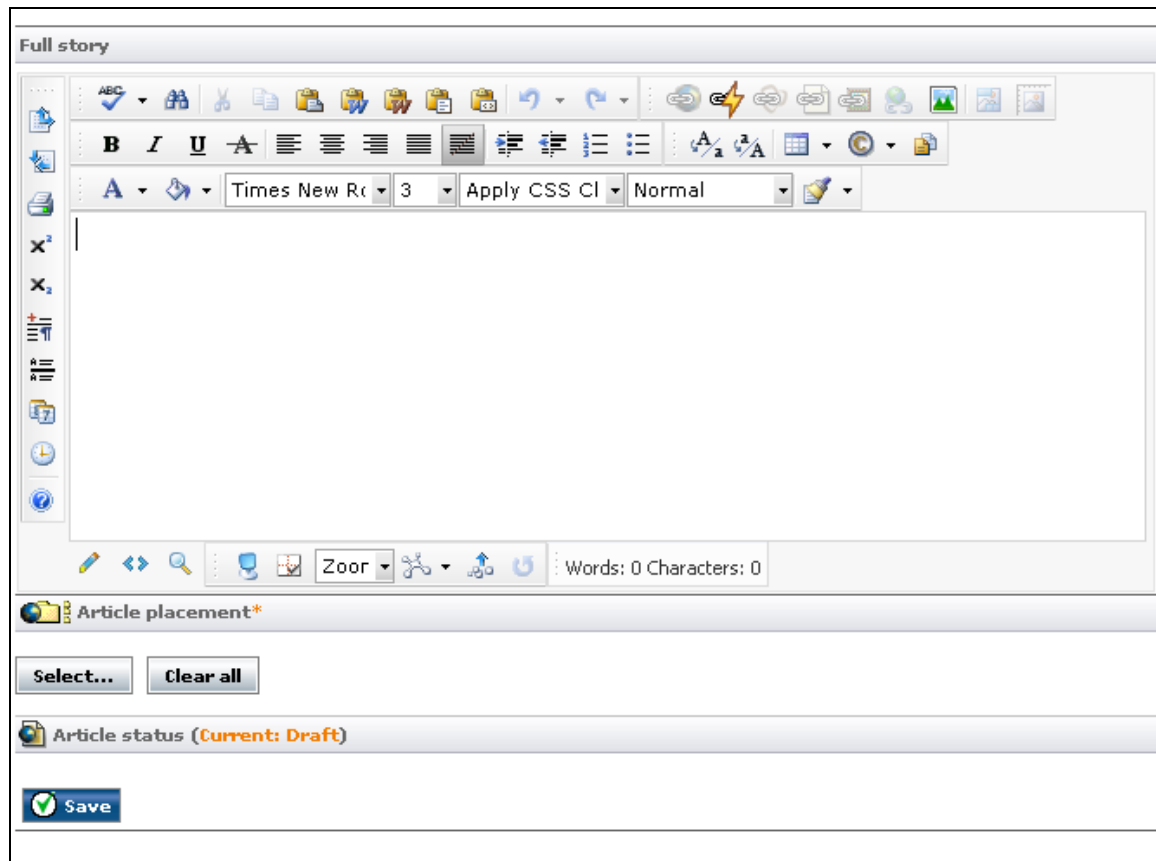
For a CMS to be successful, it must be widely used throughout an organization. That means content will be managed primarily by non-technical staff so it must presented in an encouraging and non-threatening interface. Wherever possible, authors are shielded from the complexities of content management and the details of the underlying system.

Other usability requirements include being:

- quick to learn
- easy to use
- efficient for skilled users
- error resistant and fault tolerant

- obvious in its use, without requiring extensive knowledge
- easily identifiable and intuitive labels and icons

Digimaker CMS is designed to allow non-technical authors to easily enter content. It includes a WYSIWYG (What You See Is What You Get) browser-based editor, which allows authoring of content without any HTML or other technical knowledge. The Digimaker CMS's ease of use is attested by the fact that it is a popular CMS with hundreds of users, who praise the simple and intuitive interface (both the WYSIWYG editor and the CMS itself, see the client list for our customers).



**Article Editor**

The WYSIWYG editor has the look and feel of other Microsoft Office applications, and any Digimaker CMS specific icons are representative of their function. The editor also supports, spell checking, search and replace, copy and paste and table editing.

Tool tips and instructive text is displayed extensively throughout the application.

### **Complex pages created without using HTML**

The content editing tools of Digimaker CMS allow for complex page layouts to be defined without the use of HTML. Complex layout of text and images can be achieved using tables within the WYSIWYG editor or CSS elements. However, administrators and developers may access and edit the HTML when required, by toggling the "HTML preview" icon in the WYSIWYG editor.

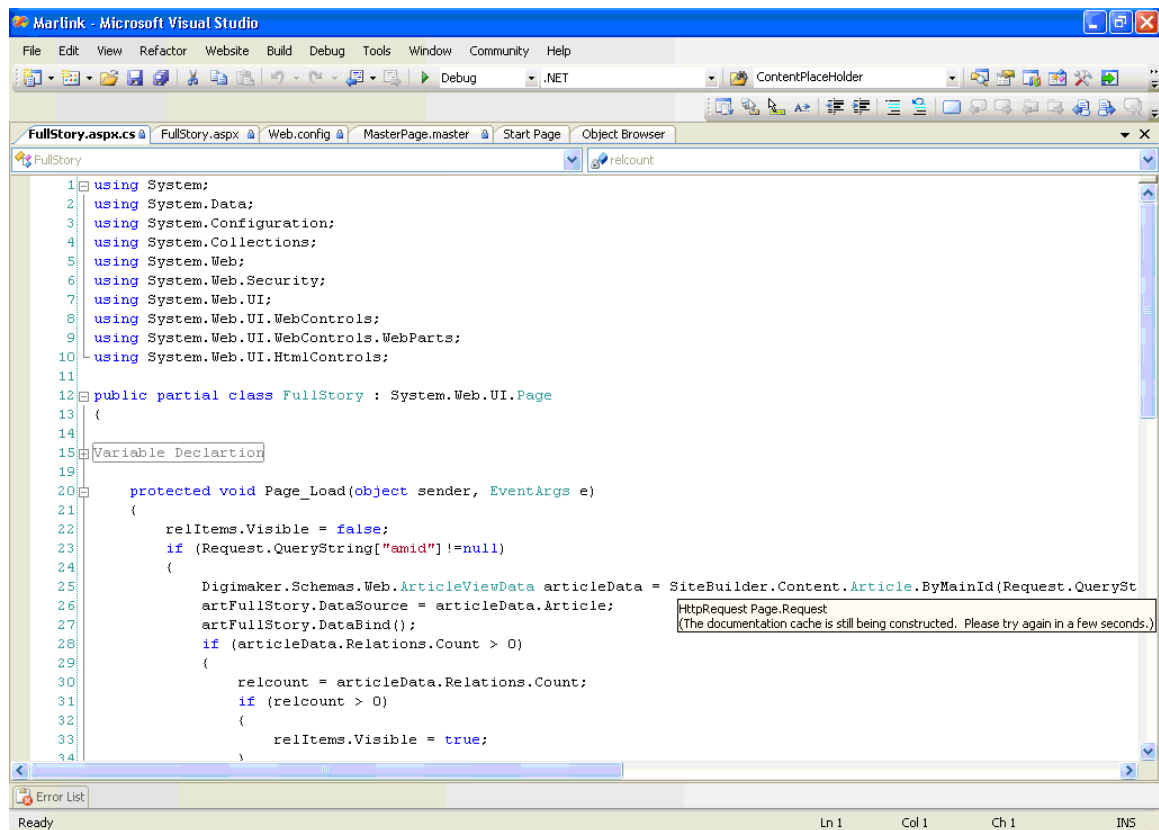
# Separation of Presentation and Content

## *Design templates*

Digimaker CMS separates content from presentation through the use of “design templates”, which are used to define the layout and look-and-feel of pages. The design controls such things as the:

- General “look and feel” of a page (including style sheets)
- Common page elements (e.g. the header and footer)
- The navigation structure (e.g. menus and bread crumb trails).

The authoring environment (WYSIWYG editor) ensures style-based editing, by forcing editors to select a preferred style from a pull-down menu of formatting options, the contents of which is driven by the design style sheet.



Template in development

Designs can be applied to a page and each system may have many designs installed, so it is possible to have a different look and feel for policy documents and media releases, for example. Content may also have different designs applied to it depending on how the content is requested, through a public website or through an intranet for example. This way the Digimaker CMS allows you to use the same designs throughout your site.

### **Creating and updating page designs**

The average author does not need to understand how designs are created or loaded to the CMS. Rather, they will select their desired page design from a point-and-click list of options.

New designs are created using standard web design strategies (i.e. they are ASPX pages with associated images and style sheets).

### **Styles-based authoring**

Digimaker CMS uses CSS style sheets to control the presentation of web content, including paragraph and character styles.

The WYSIWYG editor forces editors to select formatting options from a drop down menu of styles (e.g. heading, sub heading, normal text etc). These styles correlate to elements defined in the CSS style sheet (e.g. <p>, <h1>, <h2>, <span>)

These style sheets may be created and configured by an administrator, and changes are applied to the appropriate content.

## **Content Management**

### ***Support for multiple websites***

Digimaker CMS allows multiple sites to be defined and managed within a single repository. Each object in Digimaker CMS can be easily re-used by “relating” to it, rather than duplicating the content.

### ***Single source of content***

A single page or piece of content will often be used in different contexts, or delivered to different user groups. This is a prerequisite to managing different websites, i.e. intranet and multiple internet sites from the same content source. Single sourcing capabilities are integrated into the core design of the Digimaker CMS, since all content is stored as an object. Each object (article, image or document) is a separate entity that may be easily re-used in many different places, by creating a link to the original data source rather than duplicating it. This is done via a simple point and click exercise on the Explorer or appropriate Workspace. In this way an article, a document, or even a link may be used many times on many pages and sites.

Digimaker CMS allows assets to be formatted variably in different circumstances. For example, if appropriately configured, a page may be viewed as any of the following:

- As an HTML/XHTML page using the standard website design.
- In a printer friendly format (also an HTML/XHTML page but with alternate formatting suitable for printing).
- As a low-bandwidth version.
- Or in a highly web-accessible format.

It is possible to configure the system so that the user agent determines which format will be displayed however this feature requires ASP.NET development skill.

### ***Support for rich media***

Digimaker CMS allows authors to embed rich media objects such as graphics, video and sound within content. Such objects can be entered into Digimaker CMS at the same time as the text content and with appropriate metadata. Alternatively, you may include a reference to such an object already in the content management system or a URL external to it.

### ***Spell checking***

Digimaker CMS provides a visual spell checker as part of the WYSIWYG editor and includes automated suggestions and corrections. The dictionary can be set on the server for different languages.

## ***Immediate previews***

Digimaker CMS allows an author to preview an article as it will appear in the published site, by selecting the Preview tab. Preview of the article shows the net effect of all the authoring features specified.



## ***Support for multi-language content***

Digimaker CMS interface and sites based on Digimaker CMS fully support multi-byte character encoding, thus providing full internationalization support. Additionally the object based structure of Digimaker CMS makes it easy to publish content in multiple languages.

## ***Accessibility***

Digimaker CMS may be used to publish sites that conform to W3C Web Content Accessibility guidelines. Sites published from the CMS may satisfy all accessibility requirements up to WAI Conformance Level "Triple-A" - Priority 1, 2 and 3 checkpoints.

Where objects in the content management system are by their nature less accessible such as PDF documents, Flash presentations moving and still images, Digimaker CMS supports ways of making the content accessible by including appropriate accessibility information at the time of authoring.

It does this by:

- Allowing users to add additional information for accessibility requirements (e.g. ALT tags).
- Allowing authors to publish alternate, more accessible versions of material that by nature is less accessible (such as PDF or Flash documents).

The administration interface of Digimaker CMS is not itself web accessible, due to the wide range of visual tools it provides. However, it is possible to create templates that allow web accessible updating of content through the front-end of the website.

## ***Working With Groups of Pages***

Digimaker CMS offers many tools to support the management of groups of pages. These include:

- A Website structure tree in the Content Explorer.
- Menu items with nested levels.

## ***Navigation aids***

Digimaker CMS Administration interface provides users with consistent and logical navigation aids. This includes automatic generation of the site navigation menu, and may highlight the user's current location in the site hierarchy.

The following navigation aids to work effectively in a large content repository are provided:

- Browsing the hierarchy of topics using nested menu items.
- List-based view of articles under the currently chosen menu item.
- Full-text searching of content.

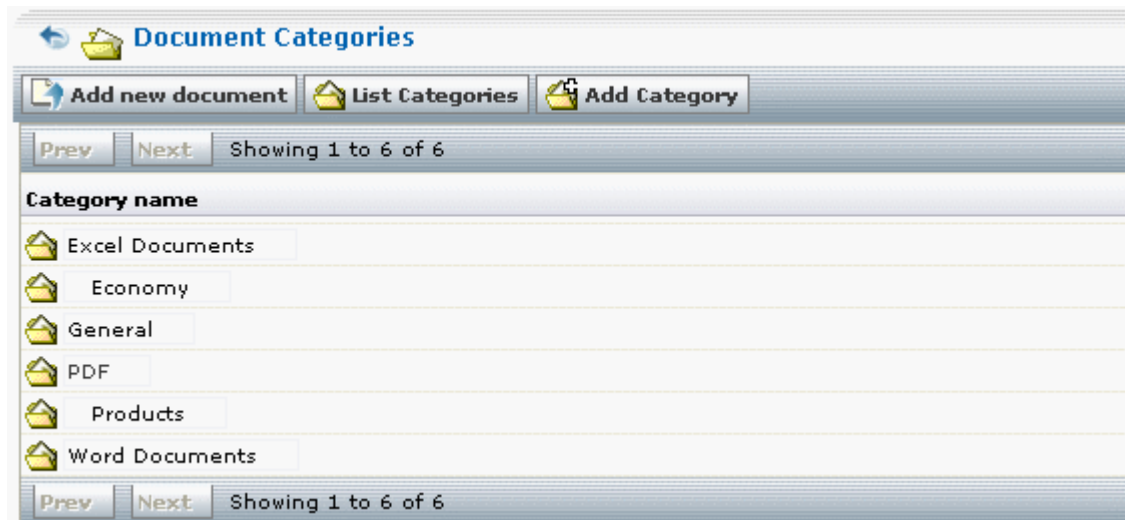


Website Structure

## Document and asset management

### *Library*

Digimaker CMS stores everything as objects including documents of any type. All documents are stored in their native format, including PDF files, Microsoft Office Documents, images, sound files and movies and each of these may be filed in one or more central repositories (categories).



Document categories

Digimaker CMS provides the following functionality for all documents:

- The ability to be loaded into the system via a browser. (Digimaker CMS is an entirely browser based system).
- Security permissions for read and write permissions may be set for individual users or roles.
- Full versioning for all documents which must be locked ("checked-out") before editing.

The **Library Tab** presents you with the usual Digimaker interface elements such as the submenu bar with menus. It also has **Library Explorer** on the left and the **Workspace** with commonly used commands on the right.

Through the **Library tab** of the **main menu tab**, the user can upload images, documents, files and banners.

### **Images**

All pictures that are displayed on your web site have to be uploaded to the image library. There are many ways of uploading and managing images. Digimaker CMS incorporates an image editor allowing you to manipulate image assets. It also allows images to be automatically resized on upload.

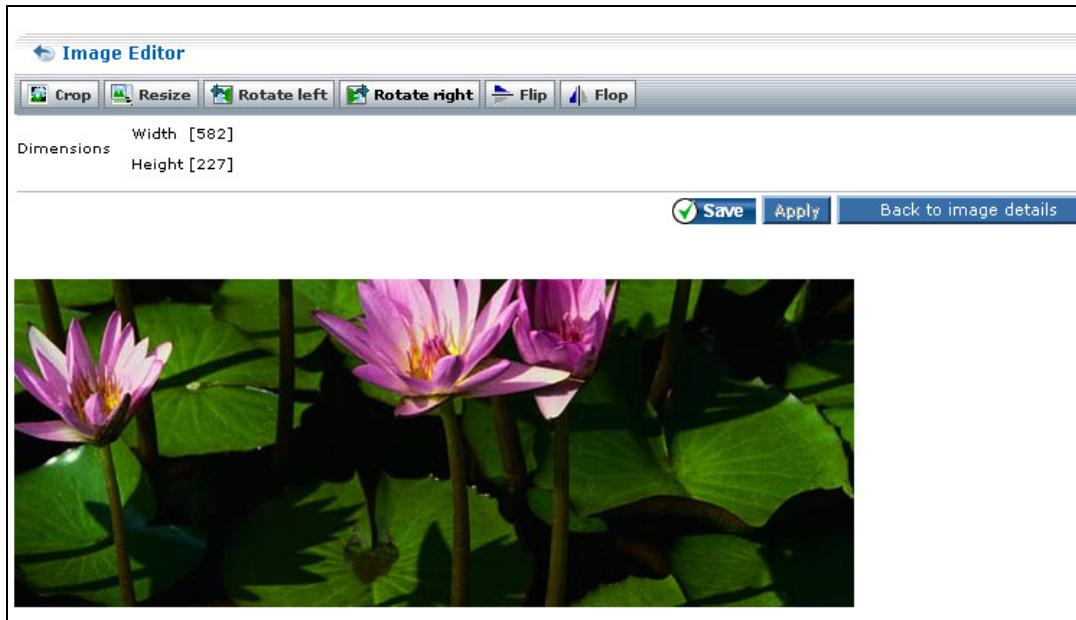


Image Editor

An image editor included in the Digimaker CMS interface provides user with the ability to edit images without having to leave the browser.

### Documents

All the documents available for download from your web site should be loaded into the system's document library. A wide variety of document types are acceptable, such as PDF, Microsoft Word Excel, and Power Point Documents.

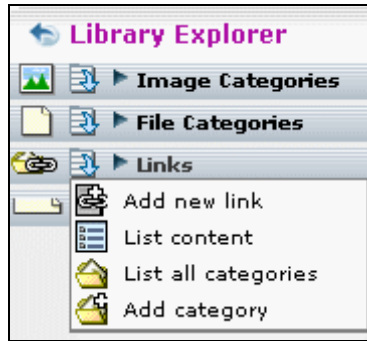
To organise the documents you can create your own document categories. The categories can be organised in a hierarchical structure. Subcategories are listed beneath their parent categories, and are indented.

You can add a new document, list all the available categories or add a category by clicking on the appropriate buttons placed on top of the **Document Categories Workspace**.

### Links

External links can be set up to other web sites, documents or e-mail addresses. You can add links that may relate to articles you are writing. When the links are added to the system you can put references to them in articles by choosing **Related links**.

Links to external web pages can be stored in the link library. This allows you and other site editors to reuse useful links multiple times with little effort.



**Add New Link – Library Explorer**

All the links in the link directory will be regularly checked to see if they function. Invalid links will be shown on top of the **Inbox**.

You can search for any link by typing the name of the link in the **Find text field**. If you want to narrow down your search to a specific criterion then click on **Advanced** and fill in the search fields.

You can add a new link, list all the categories in Link or add a category to Link by clicking on the appropriate buttons placed on top of the **Search Links Workspace**.

### **Banners**

A banner is an advertisement displayed on specific pages of your site. Banners can be configured to appear only during a specific time period. Digimaker also gives you the functionality to track the number of times a banner has been clicked on.

It is possible to manage the display of banner images on your web site. In order for this to work you first have to upload the banner into the system.

You can display a list of all the banners in all the categories under **Banner**. You can search for any banner by typing the name of the banner in the **Find text field**. If you want to narrow down your search to a specific criterion then click on **Advanced** and fill in the search fields.

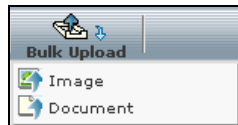
You can add a new banner, list all the categories in Banner or add a category to Banner by clicking on the appropriate buttons placed on top of the **Search Banner Workspace**.

You can add your own categories to organise banners in the system. The categories can be arranged in a hierarchical structure. Subcategories are shown indented beneath their parent categories.

You can add a new banner, list all the categories in Banner, or add a category to Banner clicking on the appropriate buttons placed on top of the **Banner Category Workspace**.

### **Bulk upload**

Digimaker 6 allows you to upload both Images and Documents in bulk. The bulk upload feature allows you to upload a variety of image and document types. You can configure the maximum file size allowed when uploading files using bulk upload.



**Bulk Upload**

To use bulk upload for both images and documents store the documents in a zip or rar archive. You can define a directory structure and this structure will be replicated in Digimaker.

## Publishing

### *Publishing Model Overview*

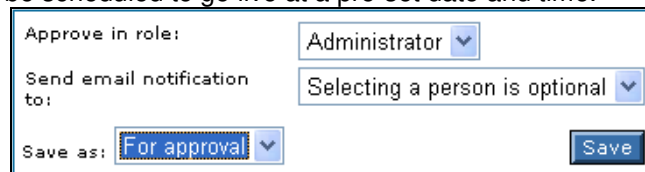
Content is automatically and instantly published when its status is changed to "Published". This may occur in one of three ways:



**Article Status**

#### **Published (manually or automatically)**

An author sets an Article as "Draft" when it is being composed. An article that has reached completion can be set as "For Approval". This article will be sent for Approval to the role selected in the drop-down, you may alternatively have a specific user notified. Once the article has been reviewed the status can be changed to "Approved". In the last stage of the Article workflow the Article status can be set to "Published" thus making it available on the website. In addition to the above an article can be scheduled to go live at a pre-set date and time.



**Approval**

Content editing and Publication is managed through the combination of:

- Page status (e.g. Under Construction for unpublished content or Safe Edit for live content)
- Check-in and Check-Out (to ensure authors cannot accidentally overwrite each other's content)
- Security restrictions on a per article basis.
- Design abstraction from content.
- Automated link integrity management tools link checker with notification.
- Article status notifications with in the Digimaker CMS Administration Interface
- Content managed by Digimaker CMS does not necessarily have to be moved through the workflow above, the Article Status can be directly set to "Published".

### **Timed release of content**

In Digimaker CMS it is possible to schedule a status change to take place for an asset at a particular date and time using article properties. Hence an article may be scheduled to go live on the web site at a scheduled time. This is done using the Show Date property under the Article Properties Tab. An article can be scheduled to change from the Published to Archive status, thus removing the asset from the site. This is done using The Expire Date property under the Article Properties Tab.

**Display properties**

Priority

Show Date   12  : 40

Expire Date   00  : 00

**Article Display Properties**

Content that has been archived will be available for roll-back from the specified menu item. The same functionality is available for menu items as well.

## History

The Digimaker CMS supports History with full versioning of all Articles and Documents. The system automatically stores all changes to each of these objects, such as when the change was made and by whom. Individual pieces of old content may be copied and used to replace current content versions.

[Write Article](#)

[Content](#) [Properties](#) [Relations](#) [Preview](#) **History** [Comments](#) [Price](#)

**Draft/For approval**

There are no versions of the article to display in this section.

**Live version**

Version	Create Date	Modified Date	Publish Date	Author	Modified by
Ver 6	09/06/2006 10:04	09/06/2006 10:04	10/01/2006 11:15	Administrator	Administrator

**Previous Versions**

Version	Create Date	Modified Date	Publish Date	Author	Modified by
Ver 5	08/06/2006 18:48	08/06/2006 18:48	10/01/2006 11:15	Administrator	Administrator
Ver 4	03/05/2006 09:36	05/05/2006 11:56	10/01/2006 11:15	Administrator	Administrator
Ver 3	03/05/2006 09:33	03/05/2006 09:33	10/01/2006 11:15	Administrator	Administrator
Ver 2	03/05/2006 09:29	03/05/2006 09:29	10/01/2006 11:15	Administrator	Administrator
Ver 1	10/01/2006 11:19	10/01/2006 11:19	10/01/2006 11:15	Administrator	Administrator

**History**

Each time an article or document is changed the version number is automatically incremented.

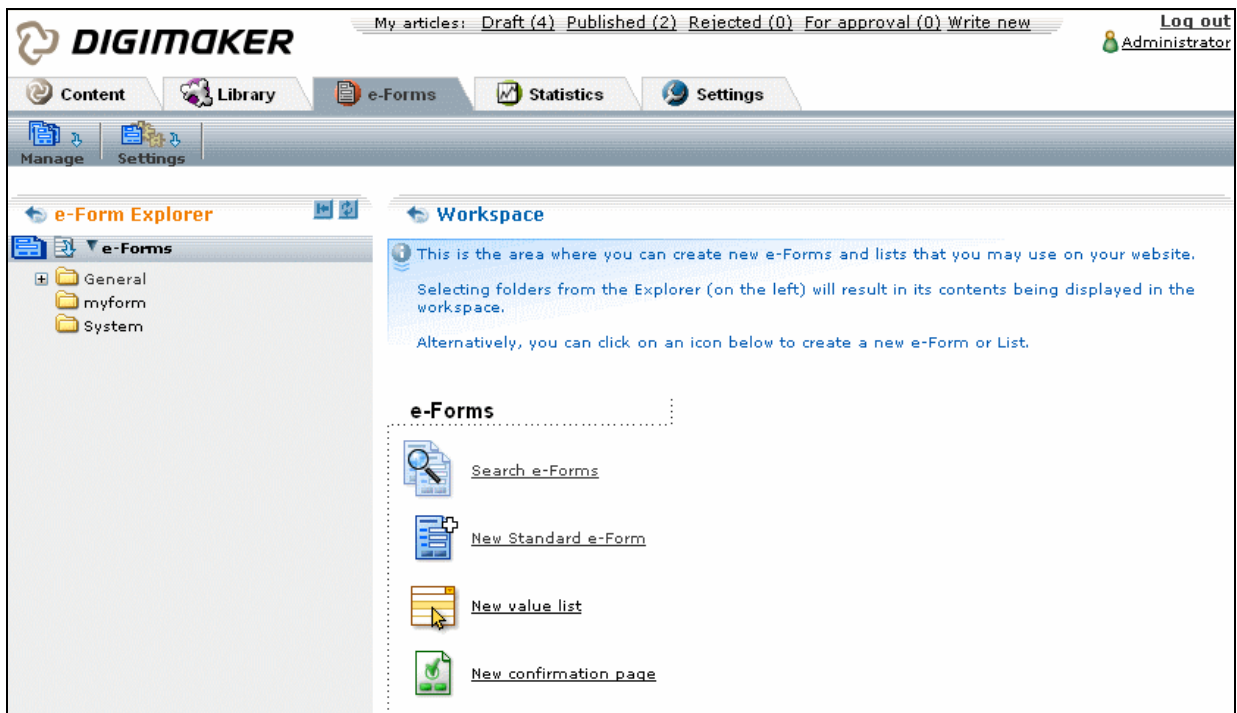
## e-FORMS

This section gives an overview of the Digimaker e-Forms menu screen. You can use form elements to make interactive forms with multiple pages and confirmation messages.

E-forms can either be published as a menu item or they can be related to an article. Easy navigation to a form is essential in a user interface. e-Forms in Digimaker help you in accomplishing this task easily.

With careful selection of some basic parameters you can create contact forms, registration forms, order forms or any other type of interactive form with the fields and style of your choice. The forms can be published directly on a specific menu choice or they can be related to an article.

Gathering data is an important task for most businesses and Digimaker makes it easy to integrate complex data collection into your website or web applications. Information entered in the forms can be easily reviewed at any stage, using manually defined reports which only show the sections relevant to you, or by viewing the results in graphical format.



**e-Forms Menu**

When designing a form you can include a set of values that users can choose from. These values can be displayed in the form of radio buttons, checkboxes or drop-down lists. **Value Lists** displays a list of all the **value lists** in the system.

### e-Form Views

A view is a filtered list of all the records that are available in each application form database. These views are the basic building blocks for more advanced use of the e-Forms. By creating the necessary views, you can maintain a customer database, an inventory or any sort of information that may be useful to store in a database.

It is possible to insert information into the database from the Digimaker administration interface or from online forms on the website, allowing information to be collected automatically from online users.

### Chart from a e-Form

Data from a form may be displayed as graphs and charts, similar to charts in Excel.

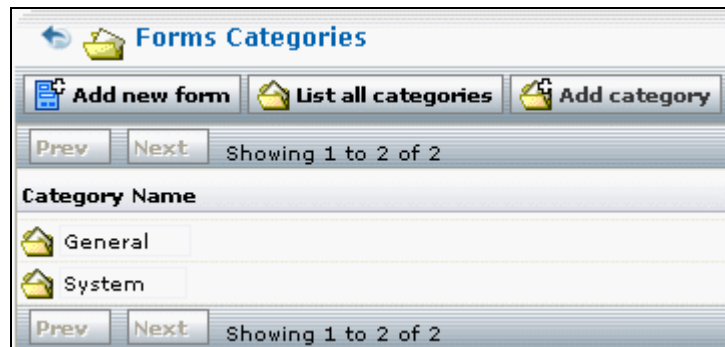
### Confirmation Pages

You can define the confirmation/thank you page a user views after submitting a form.

Confirmation messages provide feedback to the user and thus make the data gathering process interactive. This is crucial in cases where data needs to be consistent and the user needs to have a confirmation about the success of the operation. Confirmation pages as part of forms generally increase the usability and are a recommended design practice.

A confirmation page is usually a page that is displayed after a user fills and submits a form. This page will most likely contain feedback in the form of a confirmation message or a thank you note.

To organise e-Forms you can add your own categories to the system. These categories can be organised in a hierarchal structure. Subcategories are shown indented beneath their parent category.



Forms Categories

You can add a new form, list all categories or add a category to Forms using the appropriate buttons placed at the top of the **Forms Categories Workspace**.

## Calendars

Calendars are a wonderful way of scheduling activities and resources. By providing you with a calendaring system, Digimaker makes the work of scheduling events within the company and outside it very easy. With appropriate templates you can also publish this information on your Website.

← Viewing events for c1

Options

Calendar: c1

Selected date: 4/7/2005

View: Month

Display Weekend

Week/Weekend Split

Viewing April

Monday	Tuesday	Wednesday	Thursday	Friday
28	29	30	31	01
	New Event			
	New Event			
	New Event			
04	05	06	07	08
myevent	My Event	New Event		
		New Event		
		New Event		
11	12	13	14	15
18	19	20	21	22
25	26	27	28	29

Monthly view of events

## Campaign

The Campaign module is designed to create e-campaigns. E-campaigns are used as a form of direct marketing to generate and increase sales by creating marketing campaigns. It also helps to build company awareness and brand building. E-campaigns typically consist of mailers sent to target audiences grouped according to the demographics, user behaviour and any other criteria that drives the company's business.

The campaign module allows you to:

1. Send company newsletters, marketing communications such as product updates, promotional information, and product brochures
2. Advertise a new product or services offered through the campaign module.
3. Customise the mailers using templates that best suits the product or service offering
4. Announce public events
5. Create target groups based on specific criteria

## Target Groups

Target groups are nothing but selected group of audiences grouped as per interest levels, the demographics, user behaviour and any other criteria that drive the company's business. Creating target groups helps you sort and send e-mail to customers with specific interest. For example, you can send a thanking message including your latest offers and a sample of the services provided for people who register on your website for the first time. You can send promotional newsletters for long-time customers.

## RSS Feed

The RSS Feed module makes use of the RSS feed feature to automatically collect news from third party news sites. **RSS** is 'Rich Site Summary' or 'Really Simple Syndication'. Syndication is sharing of content among websites. **RSS** feeds are composed in **XML** which can be easily parsed to dynamically create web pages. Each item in the feed consists of a headline, article summary and link back to the article.

RSS Feed allows you to provide fresh and up-to-date news in the website continuously. Collected news can be converted into articles and published under a menu group on your website. This allows the user to easily locate information and also read only those articles of interest by scanning the headlines.

## **Content Extensions**

Content extensions enable you to add custom properties to standard Digimaker objects. You can design new properties by creating e-Forms, which can be attached to the objects you want to extend.

Essentially, this feature allows you extend any content object in Digimaker. Instances of Digimaker objects you would want to extend are articles, banners, menu items and organization units. This does not need any extra coding.

### **Why Extend your Content?**

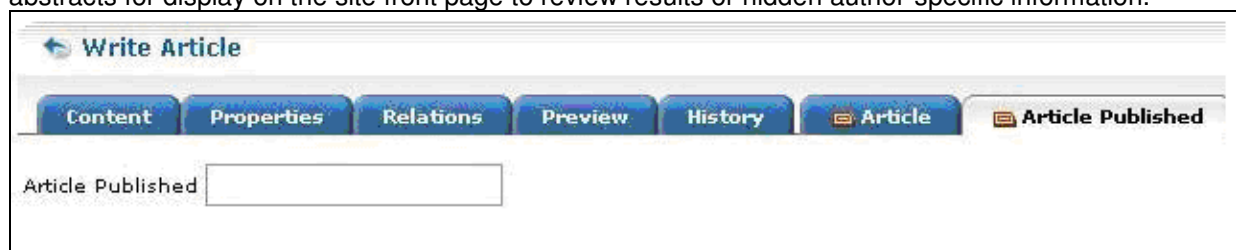
Benefits of content extensions:

- Fits nicely in a CMS/CRM platform concept
- Provides great flexibility for the developer administrator and end user.
- Groups extended attributes into tabs.
- Extends the object to have as many custom properties as you want.
- Content in the extensions are available from the e-Forms module for filtering and export and import from other systems.

### **Content Extensions examples**

Using content extensions on your site is very flexible and makes sure your website doesn't have to be rebuilt just because your business has expanded or your needs have changed.

For articles, content extensions can take care of everything from additional headlines and abstracts for display on the site front page to review results or hidden author-specific information.



**Content Extensions for an Article**

Examples:

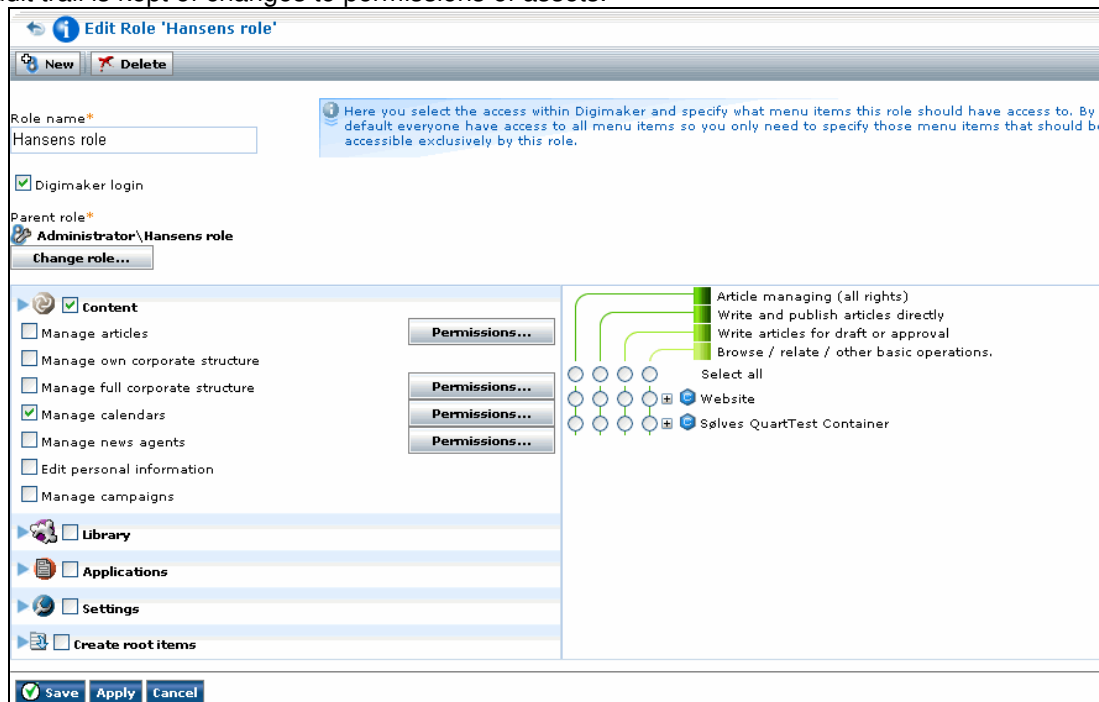
- A website is reviewing computer games and in addition to normal articles they would like an article that also contains a field for the game review score, a field for a link to the game website and a range of checkboxes for categorizing the type of game.
- A website stores and categorizes historically related images and articles and would like to add additional information on each image: persons or places in the image and year the historical image is from. Adding a text field for the description and a dropdown for the year to the Digimaker image object would allow the site to store the additional information on each image.
- A news agency would like its website to allow its registered subscribers to receive articles based on their interest and also to search for other users with similar interests. To achieve this, checkboxes for 20 various areas of interest is added to the user object in the organization structure enabling the developer to display and store additional information on each registered user.

Content extensions also come in handy when importing articles from other CMS or CRM systems which may contain more or different fields than the standard Digimaker fields.

## Security

### User Security

The Digimaker CMS has the following types of access privileges, each of which provides varying access levels. These privileges can be encapsulated in the form of roles. A simple and intuitive user interface is provided to allow an administrator to grant browse, edit or manage access to an asset or group of assets, by a particular user or group of users as for all changes to assets an audit trail is kept of changes to permissions of assets.



Properties of a Role

### Member's areas

Digimaker CMS allows you to define areas of your site which require users to be authenticated before allowing them access. Digimaker CMS hides content from users that do not have appropriate levels of access, including removing references from menus and navigation systems.

### Other security features

**Session management** - when authenticated the system allocates a temporary session key..

**File type restriction** - it is possible to restrict files types that may be loaded to the CMS and these files can be loaded to a non-executable directory. That means if someone were to load malicious code to the server it would not be executable on the server.

## Portal Style Functionality




Digimaker CMS includes many features associated with portal systems, including:

- Access may be restricted to people who require login.
- Automatic navigation filtering: menus and navigation systems such as dynamic site maps automatically filter out links that should not be displayed for a given user.
- Content within pages may be displayed selectively for individual users. (e.g. A block of text on a page may only appear if a user is logged in)
- Content may be displayed alternatively depending on a user's settings. (e.g. a user who is subscribed to a certain mailing list may see different information to a person not subscribed to that list)
- Search results only display content to which a user has access.
- Assets may be syndicated for use in other systems.

## Usage Statistics

Digimaker offers the Statistics menu to track and analyse your web site traffic. Good visitor analysis is a prerequisite to a sound web strategy. The Statistics module of Digimaker is very comprehensive in its coverage and allows you to do the following:

- It helps you find out number of visitors during a specific period of time.
- Allows you to distinguish between repeat visitors from first time and one time as well as visitors from your own organization.
- It can track how visitors found your website or how long they stayed on a particular page.
- It can also tell us what browser, what version of a browser and what operating system a visitor is using.
- 

Top Identified Users				
Name		Visits	Hits	Graphical view
 Odd Grimm Torstensen	 UCB Pharma AS\Default	1	30	

### Top Identified users-Graphics Based Reports

Reports can be either text or graphics based. This makes understanding web trends easier.

You can access the **Statistics tab** from the **Main Tab Menu**. It shows the overall summary of the web site that is displayed when you choose the **Statistics tab**.

**Users and visitors**

Total identified users visited	0
Total unique IP addresses visited	156
Total visits	0
Total referred visits	0
Total duration of all visits	00m 00s
Average duration per visit	00m 00s

**Articles**

Article views	8
Total unique articles viewed	4
Average views per article	2.00

**Menu items**

Menu item views	472
Total unique menu items viewed	104
Average views per menu item	4.54

**Statistics Tab**

To the left of the screen, the **Statistics Explorer** displays a number of links to different kinds of reports. Click on a report link to display it in the **Workspace**.

## Statistics Explorer

The **Statistics Explorer** offers two different methods of viewing report information – **Statistics by menu item** and **General Statistics**.

**Statistics by Menu Item**

At the top of **Workspace** the **Select Period** list box allows you to see reports limited to that time period.

**Select Period**

Select other period if you want to choose a combination of a particular year and month.

## General Statistics

**General Statistics** offers overall summary of the web traffic trends for the entire site. In the previous section you may only have had access rights to view reports based on a specific menu group or groups. In this section you can review statistics for overall site activity.



General Statistics

## Search

### Overview

CMS may be extended with a powerful search engine module, which allows full text searching and thesaurus-based searching of content in a website or intranet.



Search

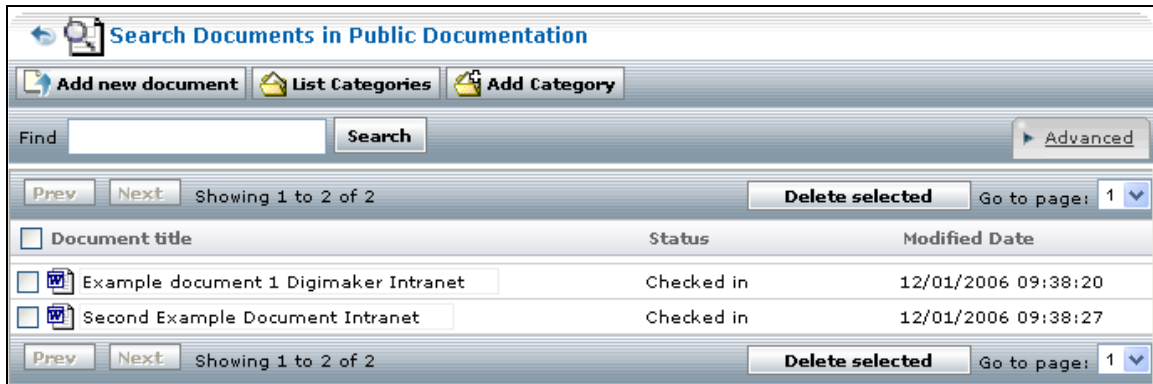
When an object is added, edited or deleted from the CMS, Digimaker CMS updates its searching index to reflect the change. The index provides a map with weighting of search words to the assets that contain those words. This architecture facilitates the following features:

- Searching is fast.
- Searches are real-time (i.e. the index is always up-to-date since it is instantly updated when content is edited).
- Searches may discover content across many different asset types, such as pages, files and users (NB assets must be registered with the search engine)
- Searches include metadata.
- Searches support plain text and Boolean searching.

- Searches are case insensitive.
- Searches may be restricted to certain areas of the site.
- Searches will only display results accessible by the user (results that relate to assets where a user does not have read permission will not be displayed).

### Searching in the content of the document

The user can now search inside the content of the documents uploaded into the Digimaker CMS. On the document listing page, click **Advanced** and select the **Search in contents also option** to search inside document.



Search Documents

## Platform

This section discusses the capacity; system requirements to support Digimaker CMS based websites and its repository, and scalability.

### Capacity

The capacity of Digimaker CMS is determined by three factors:

- the scalability of the database
- the load on the server
- the capacity of the server

Clients are unlikely to reach the limits of Digimaker CMS's capacity to host multiple sites as Digimaker has some clients who host up to 100 sites on the same server without performance being impeded.

Prescribing the server load for a given site is not straight forward, as system performance is a multi- faceted consideration. The following issues must be considered when designing a robust and adequate hosting environment:

- User behavior (are there load spikes)
- Location of the database (is it on a separate machine and does the database serve more than one system)
- Location of the statistics database (high traffic sites may need to separate statistics server)

As a guide however, Digimaker asserts that a Windows XP or Windows 2003 server with the following specification is capable of reliably serving a very large website:

### System Requirements

Digimaker Software requires the following software in addition to Digimaker

### **Server/Workstation**

The Digimaker .NET CMS requires the following software to be installed on a workstation:

#### **Operating System:**

Microsoft Windows XP or Windows 2003 Server, (English) with the latest service packs.

#### **Database:**

Microsoft SQL Server 2000 or Microsoft SQL Server 2005 (English), with Full-Text Search installed along with the latest service packs. Web sites with frequently changing content may require the database to be on a separate server.

#### **Web Server:**

Internet Information Services (IIS) 5.1 or 6.0 with the latest service packs.

#### **Components:**

[Microsoft .NET Framework 2.0](#), with the latest service packs.

A fully operational SMTP Server.

#### **Development Environment:**

To develop templates using the SiteBuilder Controls and SiteBuilder SDK, use one of the following:

- Your favorite text editor
- Microsoft Visual Studio 2005
- Microsoft Visual Web Developer 2005 Express Edition

## ***Server performance***

Digimaker CMS generates pages dynamically; however it also includes an in-built caching system to improve the efficiency of content serving. Digimaker recommends the combined use of several strategies to ensure busy sites can cope with heavy load:

- Host database and application server on physically separate machines.
- Run many Digimaker CMS systems (e.g. install one for each department) on physically different servers (Please note that there is licensing fees associated with each Digimaker CMS installation).
- Digimaker can work with clients to design a load management strategy to suit their particular requirements.

## **Scalability**

The nature of Digimaker CMS makes installation of the CMS across multiple servers a cost-effective means of serving large numbers of web sites, and provides a scalable solution for the future. Since the system runs on the Microsoft platform, installing new servers or hosting on existing servers will be fairly simple.

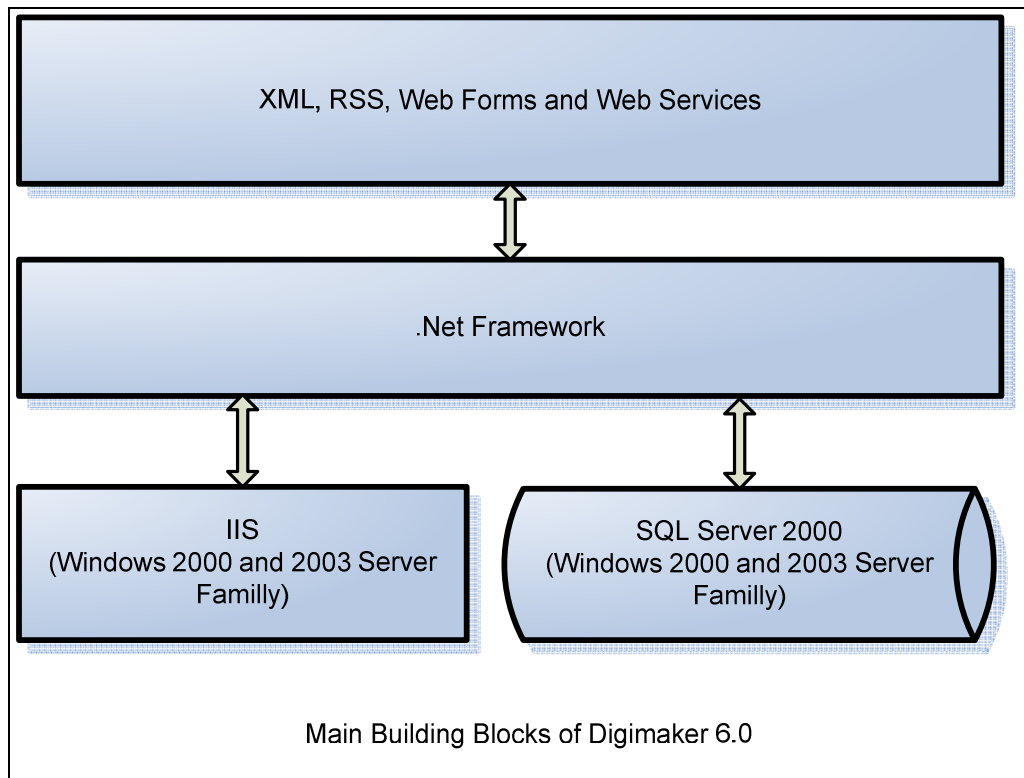
## **Connection speed**

Digimaker CMS can be operated over a 56K modem connection, however, the faster the network the better the performance. If Digimaker CMS is accessed over a fast Ethernet network connection, the performance appears to be that of an application run locally (i.e. nearly instant screen refreshes).

## Architectural Overview

### *Main building blocks*

The main technology building block looks as below:



### *Why .Net?*

Digimaker choose to base its new platform on the .Net platform. There are many reasons behind this. A few of these reasons is listed below:

#### **Improved Reliability**

The .NET Framework takes the core achievements originally made in Windows 2000 and brings them to new levels. With advanced ways of monitoring the health of running applications, as well as isolating applications from each other, applications built using the .NET Framework stay up-and-running longer than ever before.

#### **Increased Performance**

Thanks in part to advanced compilation and caching techniques, server applications have never been faster than with the .NET Framework and its ASP.NET technology. Customers who have moved from ASP to ASP.NET are seeing significant increases in speed on the order of 300- to 500-percent improvements.

### **Faster and easy deployment**

The .NET Framework makes it easy to deploy, run, and manage applications. Application isolation and automatic version control of components can help prevent versioning conflicts. Applications built using the .NET Framework can be deployed to a client or server machine simply by copying the application directory to the target machine—no registration is required. With No-Touch Deployment, Windows based smart client applications can also now be deployed to and updated on target PCs simply by copying the necessary components to a Web server that can be accessed by your end users.

### **Powerful, Granular Security**

The code access security technology in the .NET Framework was designed for today's Internet environments. The .NET Framework can collect evidence about the origin and author of an application. The .NET Framework run-time environment can then combine that evidence with administrator-set or default security policies to make fine-grained decisions about whether to run that application or enable it to access a particular resource. It can even "negotiate" with the application, for example, denying it the permission to write to a protected directory and enabling the application to choose whether it will run, given that it has been denied that permission.

### **Integration with Existing Systems**

The COM interop technology in the .NET Framework generates a wrapper around your existing COM components and Windows based applications (such as Microsoft Office), enabling you to program against them as though they were originally written using the .NET Framework. Applications built using the .NET Framework can connect with existing systems and packaged applications—regardless of their underlying platform.

### **Mobility Support**

The .NET Framework provides one unified programming model for developing smart client and Web applications for both PCs and mobile devices such as personal digital assistants (PDAs) and mobile phones.

### **Native XML Web Service Support**

The .NET Framework was designed from the ground up to support XML Web services, a model for cross-platform, distributed computing based on standard protocols such as XML, SOAP, and HTTP. Web services can be used to integrate applications running on different platforms, or to offer software as a service. With the .NET Framework, an application can be transformed into a Web service with just one simple line of code.

### **Flexible Content Access & Scalability**

The .NET Framework technology for interacting with data, ADO.NET, is designed for today's Web-based style of data access. Using ADO.NET, developers have the option of working with a platform-neutral, XML-based cache of the requested data, instead of directly manipulating the database. This approach to data access frees up database connections and results in significantly greater scalability.

### **Web services**

Web Services provide a simplified mechanism to connect applications regardless of the technology or devices they use, or their location. They are based on industry standard protocols with universal vendor support that can leverage the internet for low cost communications, as well as other transport mechanisms. The loosely coupled messaging approach supports multiple connectivity and information sharing scenarios via services that are self describing and can be automatically discovered.

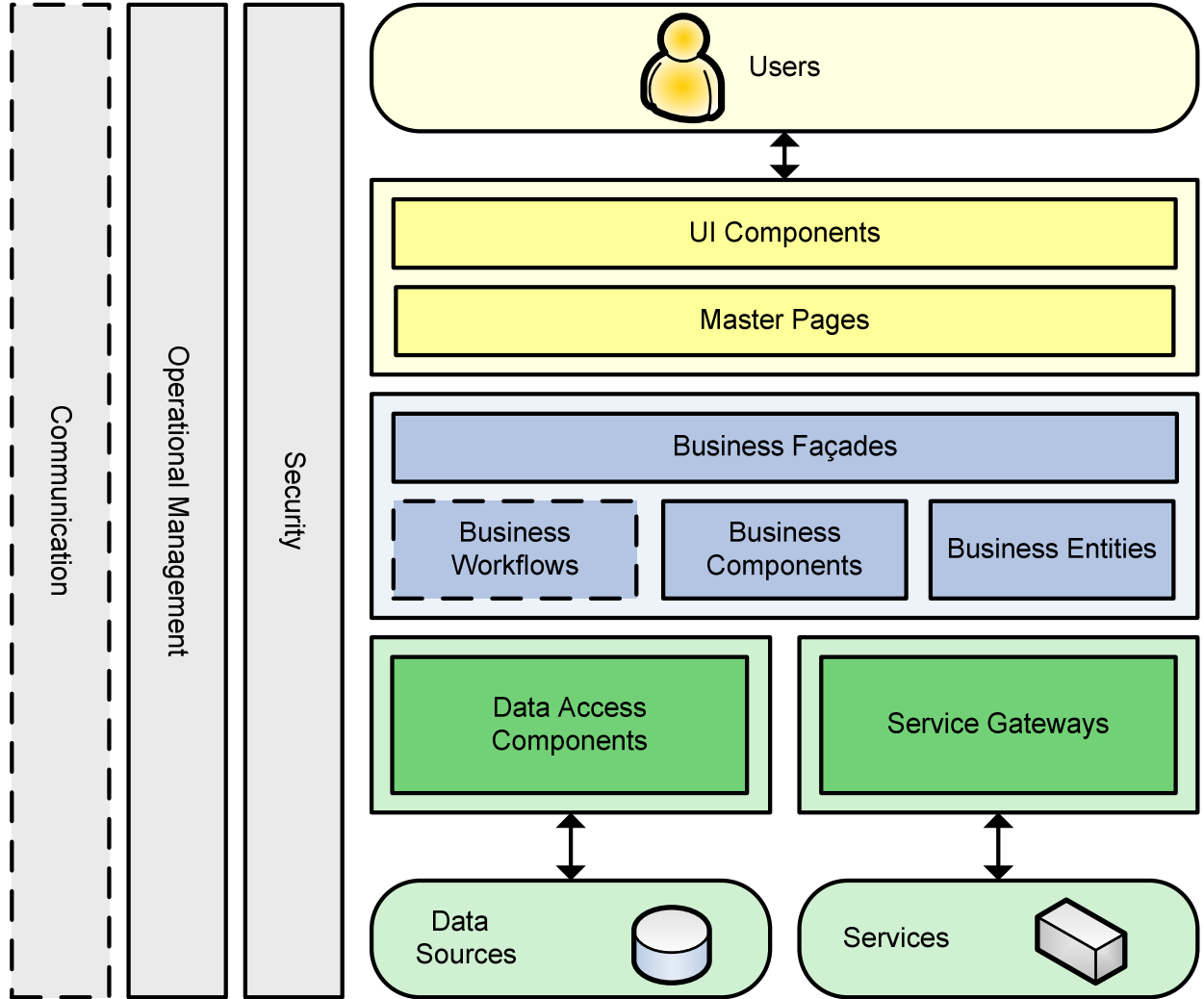
**Benefits of using Webservices:**

1. A simplified mechanism to connect applications regardless of the technology or devices they use, or their location. Applications running anywhere, on any technology or device will have a Web Services capability available to them. As such, the applications of customers and business partners will be able to participate in an organizations business process, in real time.
2. Based on Industry Standard Protocols with universal support
3. Leverages the Internet for low cost communications
4. Loosely Coupled, Previous connectivity approaches required the same technology at each end of the wire. For example, even though EAI adaptors enabled different applications to connect to each other, it still required the same proprietary EAI technology as a wrapper around each application. Focusing on XML protocols, Web Services describe the connection, not the technology at either end. Loose coupling is not just a technology issue however, but a key aspect of service design
5. Supports multiple connectivity and information sharing scenario
6. Self Describing, The time taken for developers to properly understand how to use an existing interface – particularly when it is external to their own projects – slows down the time that new connections can be established. Web Services provides a much richer specification of the service compared to previous technologies, which can be accessed programmatically.

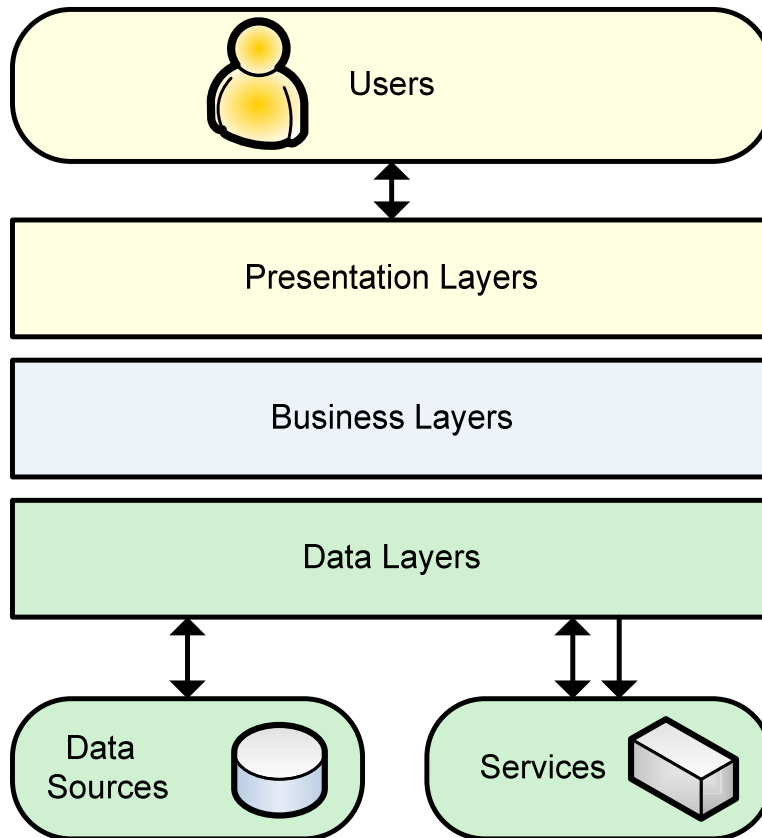
# Architecture

## Layers

The following diagram describes the detailed architectural view of Digimaker 6.0 platform.



A simple view of the layers of Digimaker 6.0 is shown in diagram below:

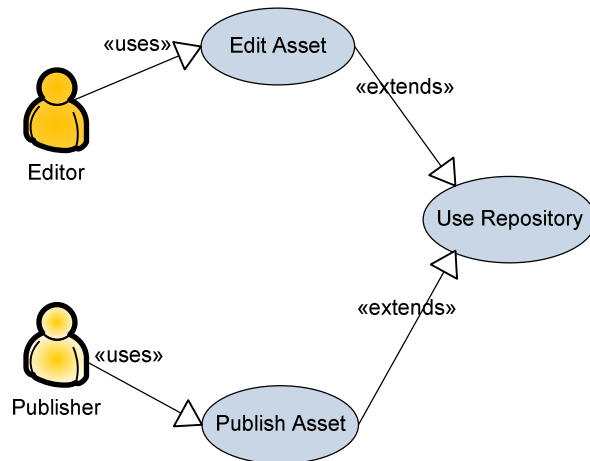


### **Data Access Layer**

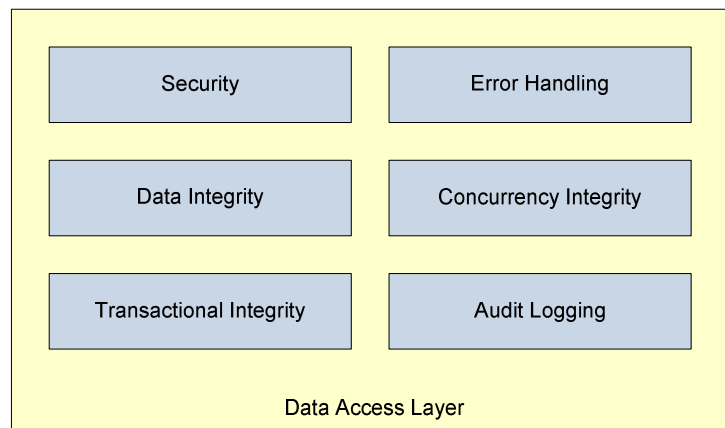
It is known that the most critical component in the development of an enterprise system is the DAL, and that the success of the whole system depends on it: the ability to adapt to changes, as well as the performances, depend, again, on the DAL. Notice also that the DAL intrinsically possesses the property of preventing errors, or at least of reducing their impact on the system. Also, security depends in large part on the DAL - see for instance the problem of SQL tampering. The underlying concept of this project is that activities such as transaction management, caching, connection management, tracing, execution plan monitoring, should be managed automatically by the DAL classes. Hence, developer should focus only on the solution of functional problems. In such a context, development time will be drastically reduced, and the quality of the entire system is expected to be high.

Digimaker is a content management system where its primary role is to organize data and make sure that all resources are present at any time so the user may get any version of an asset.

Data in Digimaker comes from multiple locations and is of unpredictable nature and structure. We are talking about office documents, pictures in different formats and sizes, HTML pages, XML files, or RSS feeds from external websites.



The Data Access Layer is the interface for adding, deleting, modifying and retrieving these assets. The main goal for this module is to hide the storage details for the client. The Data Access Layer must support security, transactions, concurrency integrity and error handling.



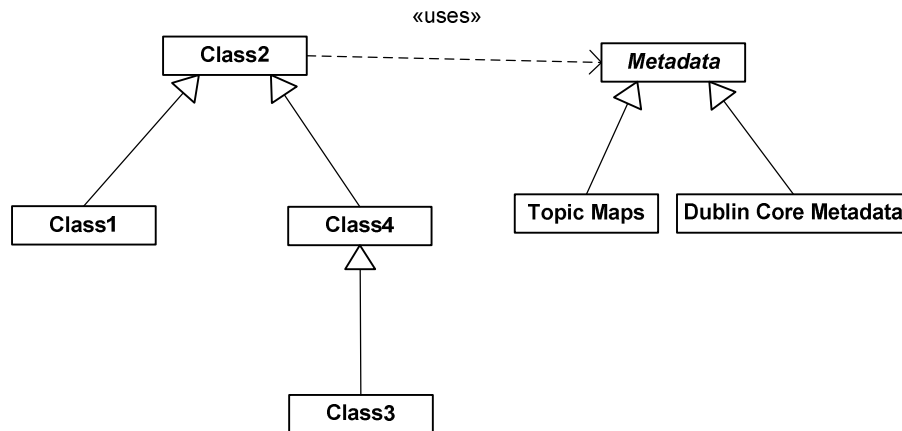
It must be flexible and easy to do changes to existing types and easy to add new.

We will use ADO.NET datasets to hold/manipulate data. Each dataset needs procedures for CRUD functionality. We should use code generation to create the classes that setup the stored procedures and assembles these into an object that operates on a dataset.

The base logic must be so generic that we don't need to change it when new strongly typed datasets are appended to the system.

## Data types

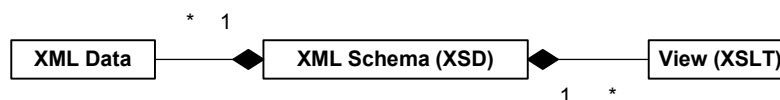
We see data as two main types: binary data and structured data.



Binary data is word documents, html pages, images and other asset types that we treat as blob objects. The only way to compare two binary data object is to compare them byte by byte.

For every data object we may add some Meta information that may describe the content. Digimaker will have two supported data structures for accessing Meta information about an item; Topic Maps and Dublin Core Metadata.

Structured data is XML documents/objects. They may have a schema so the document can be validated (and edited). If a schema is present we can also assign one or multiple views (XSLT) to display the data.



Digimaker Structured Data are objects that the Digimaker application is built upon.

For example:

- Person
- Picture
- Document

For these objects we can generate strongly typed datasets that can be used in the application. These objects are defined by an XML schema (XSD).

For example:

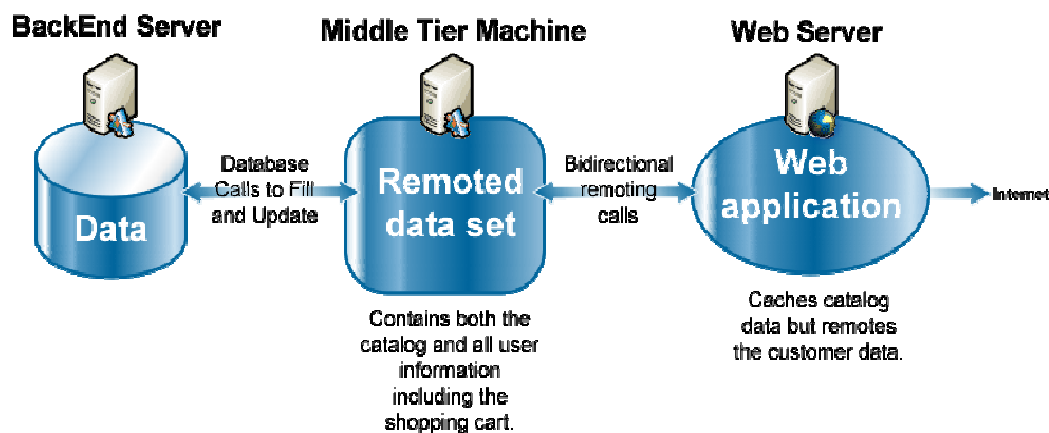
- PersonData.xsd
- PictureData.xsd
- DocumentData.xsd

## Data Access Methods

Information about the application is stored in a database. We use stored procedures to interact with the data stored there. We use a connectionless architecture when talking to the database. This way the database will scale better.

Using Datasets makes it easy for the Digimaker system to scale. Traditionally it has been a problem to scale database servers. Even though there are different solutions available to do that, all are time consuming and costly. By using Datasets, we can have a third server between database and application server to access the cached datasets and thus scaling the load much better.

The following Diagram shows the process:



## Business Layer

Business layer contains the business rules for different modules of Digimaker. Only the libraries defined within the business layer is allowed to call the DAL. Digimaker decided to implement this due to following benefits:

- Centralizes business rules into a component that is easy to create, use, and re-use. This makes development and maintenance easier.
- Provides a high-level language in which to develop business rules.
- Centralizes the business logic into components. This means less repeated code throughout your application; each form that needs to do a specific task always uses the same component.
- Centralized business logic routines help with maintenance, since changes to any routine need be made only once.
- As we are using typed datasets in Digimaker, we get the benefit of looking up column names using IntelliSense instead of having to remember them. Also, changes to a typed dataset will give the developer an early compile-time error rather than an unsuspected runtime error.

- Provides the flexibility to separate components onto different physical machines at any time. This helps with scalability and better centralization of code.

## **Main modules of Digimaker system**

The modules in Digimaker can be divided in to following major categories:

1. Content
2. Corporate Structure
3. Small Application Builder
4. Roles

The diagram on the next page (also shown to the right) shows the main components of the Digimaker system.

The Content module deals with the different kinds of content that Digimaker supports, such as articles, documents, links, pictures and site structure.

The Small Application Builder enables form based collection and storage of structured data. This data can then be filtered by different views, presented by graphs and exported for other use. This component adds the flexibility of working with user defined data, and the user is not limited to the built-in types of content.

The Corporate Structure contains information regarding organizational units and the people in the system. The user control is also done from this module.

The Roles module affects all other modules. It implements role based access control on all the different objects within Digimaker. A role can be given different levels of access to objects in the Digimaker. E.g. in case of the site structure, the following levels of access can be provided:

1. Browse articles; relate articles to other content and other basic operations.
2. Write articles for draft or approval
3. Write and publish articles directly
4. Full article management

