

# WebAiMS

## Quick User Guide



### Web demonstration version

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MiASoft Limited - PO Box 2647 – Faringdon - SN7 8ZN - United Kingdom

Tel: +44 (207) 1580928 - Fax: +44 (870) 7065117

Email: [support@miasoft.com](mailto:support@miasoft.com) - Web: [www.miasoft.com](http://www.miasoft.com)

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## 1 Introduction to WebAiMS

This document contains short instructions and guidelines for the use of the demonstration version of WebAiMS, as made available through MiASoft's demonstration site.

### Please note:

- This software is not to be used for diagnostic purposes.
- The web demo version is for demonstration purposes only. Certain functions available in the customer version may be excluded from this version.
- The demonstration version of the software is regularly updated, which may result in settings such as user accounts, passwords and other settings being reset. In such case you must recreate your user account or other settings.
- Bandwidth and firewall restrictions on the user end may restrict the speed or function of the demonstration system (see section on Java viewer).
- WebAiMS includes two free viewers, suited to your particular environment
  - **Flash viewer:** is designed specifically for accessing WebAiMS over the Internet: it automatically converts TIFF and DICOM files into JPEG, resulting in significantly smaller downloads and faster performance.
  - **Java viewer:** enables viewing of TIFF and DICOM files but:
    - May require the installation and configuration of Java components on your computer (see 1.1).
    - Requires the downloading of (large) DICOM or TIFF files via the Internet, which may impair the initial speed of displaying image stacks.

### 1.1 Configuration & Java Viewer

The use of WebAiMS requires no installation of our software on your computer or configuration of your network.

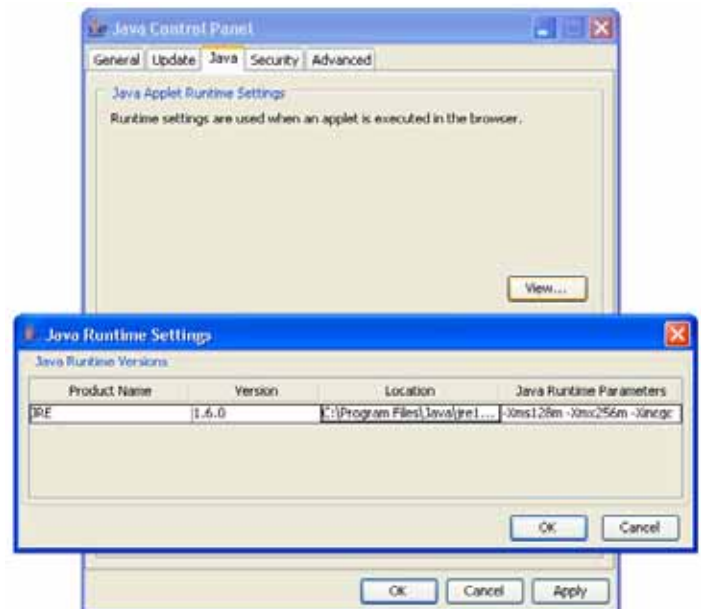
To use the Java viewer, installation and configuration of some Java components (free) may be required. You can find instructions below or in the online help files. If you run another version of Java, consult your administrator before upgrading.

Before the Java viewer can be used, the latest versions of the Java Runtime Environment (JRE) and Java Advanced Imaging (JAI) Image IO modules must be installed. If they are not, you will be prompted to install them. The modules must be installed in the order shown above (i.e. JRE before JAI)

To configure the Java Plugin's Virtual Machine (VM) go to the Start Button and open the Control Panel. Click on the Java icon (usually the steaming coffee cup) and open the control for the Java Plugin. Click on the Java tab, then View... under Java Applet Runtime Settings, and under the column Java Runtime Parameters enter on each row (normally there is just one row):

-Xms128m -Xmx256m -Xincgc

For further instructions or in case you encounter any problems accessing or using the software please refer to the Help sections in the application, the full WebAiMS User Guide (available on request) or contact MiASoft at support@miasoft.com or telephone +44 207 1580928.



## 2. Getting started

The URL <http://webaims.miasoft.com> gets you the page below



### 2.1 Create New Account

Tick the 'Create New Account' box and follow the steps:

- Enter your 'Full Name' and 'E-Mail Address' in the appropriate boxes
- Select and confirm your password

An activation e-mail will be sent to the e-mail account you entered

- Click on the link to activate your account.

### 2.3 Logging in existing account

Enter your credentials, click on 'Log on'. This will take you to the home page.

### 2.4 Logging out

To logout: click on the 'Logout' hyperlink in the top right hand side of the screen. Once logged out, you will need to repeat process 2.3 to log in next time.


Note: failure to log out will cause your session to remain active until it times out, which may prevent you from logging in again. When logging on again the option "Kill Previous Session" appears under the Log On button: select this option and repeat the log-in procedure.


### 2.5 Resetting Your Password

If you forget your password, or wish to reset it, enter your registered e-mail address and click on the *Click here* link on the log-in screen and follow the prompts. The reset password will be sent to your e-mail address.

### 2.6 When logged in


Once you are logged in the WebAiMS opening page below will be displayed, from which you can access the applications by clicking the relevant icons in the toolbar

or on the page:  for the Search & Retrieve application

 for the e-Learning application

 for the WebAdmin page

### 3 Search & Retrieve



Click on the  icon to start the Search & Retrieve application

Search & Retrieve offers powerful features for accessing text and associated images from any AiMS database, either singly or in combination. Databases can be browsed using Tables of Contents (ToCs), or interrogated by means of free-text searching.

#### 3.1 Panels and Locking

The panels in the left are dedicated for the specific functions in this application and can be displayed by clicking on the relevant panel.



More than one panel can be displayed at the same time by locking/unlocking the panel, by clicking on the lock icons  or .

#### 3.2 Searching for a case

WebAiMS offers several ways of searching for relevant information and cases.


##### 3.2.1 Simple Search (Case Filter)

Simple search is the default search option; it can be reached either from the  toolbar button or by selecting the Case Filter panel below.



Selecting the 'Select Databases' link will display the following options, which allow the searching of several different databases (max. 3 databases).

Clicking on the "Search" button will perform the search and display the search results.


Clicking on the  button returns to the current search results when viewing a case

To return to the search dialog, click on the  button.

##### 3.2.2 Tables of Contents (ToCs)

Click on the Tables of Contents panel below to open up the ToC options




Click on the  button to select another Table of Contents (available tables may differ per AiMS installation).

To select a Table of Contents, click on the appropriate link.

To refresh a Table of Contents, click on the  button.

### 3.2.3 Advanced Search

The advanced search option is a powerful search tool which enables the inclusion/exclusion of many factors, and the ability to target certain areas of the database for information. As shown in the example below, you can tailor your search with up to six different variables by selecting the 'AND', 'OR', or 'NOT' button.


Click on the  tab to start the advanced search option.

#### Advanced Search

Find the first  cases and sort them by  where:


matches exactly  in


No more conditions  OR  AND  NOT

 matches exactly  in

No more conditions  OR  AND  NOT

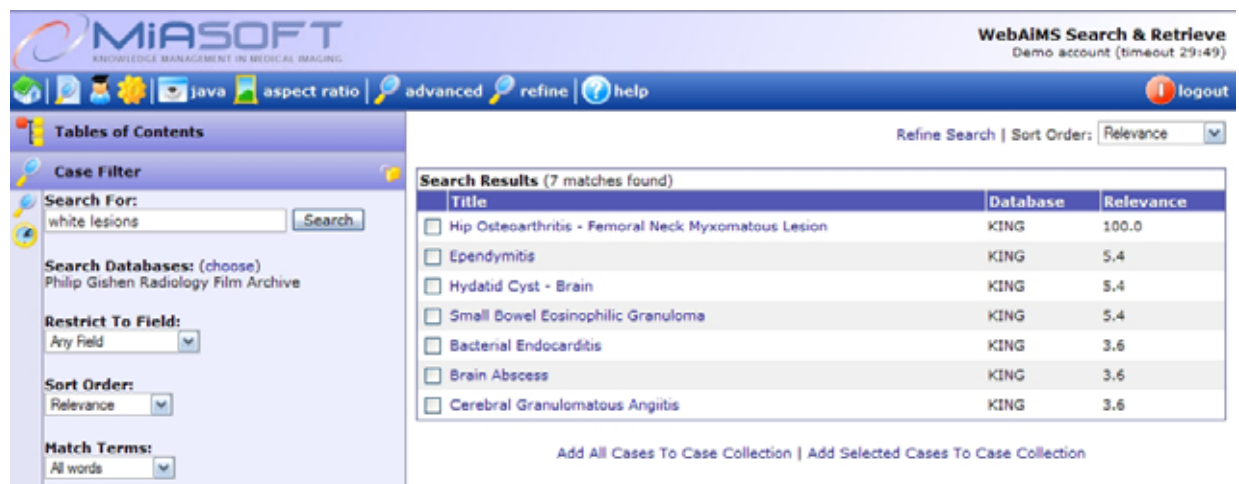
In the boxes to the right, specific database fields can be selected from a drop down list.

Fields marked with  use a Controlled Index, a drop down list with standardised vocabulary (user defined) to ensure naming consistency. Examples of controlled indexes supplied by MiASoft are Anatomy, Pathology, and the American College of Radiology (ACR) Radiological Diagnosis Codes. For DICOM databases, these are supplemented by terms specified in the DICOM standard, e.g. Modality and Body Part Examined.

Clicking on the  tab returns to the previous search dialog, allowing the user to refine the search criteria.

### 3.2.4 Search Results

Search results are listed as shown below. Clicking on a case opens the case in the AiMS viewer.



The screenshot shows the MiASoft WebAIMS Search & Retrieve interface. The search term is 'white lesions'. The search results are displayed in a table with columns for Title, Database, and Relevance. The results are sorted by Relevance.


Title	Database	Relevance
<input type="checkbox"/> Hip Osteoarthritis - Femoral Neck Myxomatous Lesion	KING	100.0
<input type="checkbox"/> Ependymitis	KING	5.4
<input type="checkbox"/> Hydatid Cyst - Brain	KING	5.4
<input type="checkbox"/> Small Bowel Eosinophilic Granuloma	KING	5.4
<input type="checkbox"/> Bacterial Endocarditis	KING	3.6
<input type="checkbox"/> Brain Abscess	KING	3.6
<input type="checkbox"/> Cerebral Granulomatous Angiitis	KING	3.6


At the bottom of the results table, there are two buttons: "Add All Cases To Case Collection" and "Add Selected Cases To Case Collection".

### 3.3 Case Collections


A case collection allows you to collate cases of interest, and store them for future reference (e.g. in e-Learning). It is, in effect, a virtual folder.

There are two ways to add cases to a case collection:

- Directly add from the search results by clicking on the option [Add All Cases To Case Collection](#) | [Add Selected Cases To Case Collection](#) to add all or selected cases (tick the box to the left of the case in the results list)
- In the Case Notes panel click on the  icon to add a specific case to a case collection

To create a new case collection, select the  icon from the left toolbar. This icon will only be displayed if there are cases in the Case Collection pane.

To open an existing case collection, select the  icon from the left toolbar.

Individual cases can be removed by selecting the  icon from the left toolbar. Cases will only be removed if the check box to the left is selected.

The case collection can be saved by selecting the  icon from the left toolbar.

A dialog will be displayed prompting you to assign a name to the case collection. The new case collection can be made publicly available (the default option), or remain private to you. To change the default value, select from the dropdown list below the case collection name. Note: user rights are permission dependent.

### 3.4 Case Notes

When a selected case is opened, its case notes are displayed in the Case Notes pane. When manipulating a case the Case Notes pane can be opened by clicking on the Case Notes panel below.



### 3.4.1 Case display

#### 3.4.1.1 Image Viewers

WebAiMS contains a comprehensive case viewer displaying the case text as well as the images. WebAiMS uses two free of charge image viewers: Flash and Java.


**Flash:** Standard viewer in e.g. Internet Explorer requires no software installation. Can only display images as JPEG (WebAiMS automatically converts TIFF and DICOM to JPEG). *Note: This viewer is optimal for the Internet use of AiMS considering image download requirements and bandwidth and firewall capabilities of user's system. Flash viewer only supports brightness control.*

**Java:** Requires installation and configuration of Java runtime and plug-in (free downloads, see help section for instructions). Can display TIFF and DICOM files. *Note: Using this viewer when accessing WebAiMS via the Internet, the initial speed of displaying DICOM image stacks may be slow due to the necessity of downloading (large) DICOM files and possible limitations in available bandwidth of the user's system. Once downloaded stack display is unhampered.*

To switch between Flash and Java viewers at any time click on the corresponding

icon in the main toolbar:  or .







#### 3.4.1.2 Aspect Ratio







Click on the  button in the toolbar to position the thumbnails either beneath or to the right of the image being viewed.

#### 3.4.1.3 Image Tools

WebAiMS includes the standard tools for image manipulation (see toolbar below). Most of the tools function identically in both viewers; where differences apply, these are noted in the text.



- Click on the  icon to activate the pan tool to move the image in every direction (useful with zoom tool) by pressing the left mouse button in the image and moving the mouse.
- Click on the  toolbar icon to zoom the image. Press the left mouse button and move the mouse up to zoom in, down to zoom out. The image is zoomed around the position on which the mouse is clicked.
- Click on the  toolbar icon to set a Region of Interest by magnifying a small part of the image. Press the left mouse button over the region of interest, and move the mouse.
- Click on the  toolbar icon to activate Contrast/Brightness (JPEG, TIFF) or Window/Level (DICOM) – Java viewer only - tool. Press the left mouse button and move the cursor up and down to change the brightness and left or right to contrast.
- Click on the  toolbar icon to activate Brightness– Flash only - tool. Press the left mouse button and move the cursor up and down to change the brightness. Note that Flash does not support contrast adjustment.
- Click on the  toolbar icon to activate the Undo tool and return the image to its original state.







- Click on the  toolbar icon to mirror the image (flip horizontally).
- Click on the  toolbar icon to flip the image vertically.
- Click on the  toolbar icon to rotate the image (clockwise in 90 degree increments).
- Click on the  toolbar icon to invert the image.
- Click on the  toolbar icon to display 2 images side by side in full screen (case must contain more than one image). The images to display in each pane can be selected from the thumbnails at the bottom of the screen. To return to normal view, click the Close Window button to the top right of the viewer.
- Click on the  toolbar icon to expand the image to full screen mode. To return to normal display, click on the Close Window button to the top right of the viewer.

Images in the thumbnail pane that are represented as **stacks** (defined as a number of images generated in the same examination, i.e. using the same modality. In DICOM terms, a stack is an image series), are shown as in the example to the right:



The individual images in the stack can be displayed using the 'VCR' options in the Image toolbar as shown below. The functionality of the individual icons is:




-  Display first image in stack
-  Display previous image
-  Display next image
-  Display last image
-  Cine loop in the sequence 1->n, 1->n continuously
-  Cine bounce in the sequence 1->n, n->1 continuously



The frame rate can be selected from the dropdown list to the right. The default value is 1 frame per second.

**Note:** when browsing through or looping stacks of DICOM images using the Java viewer over the Internet, all constituent images must be downloaded. As this process is entirely dependent on available bandwidth, stack and image file sizes, this may initially influence the speed with which the images can be displayed. Once the images have been downloaded, higher frame rates can be selected and viewing is not limited. Switching to the Flash viewer will significantly improve the performance as the system automatically converts the DICOM or TIFF images to JPEG, thereby reducing any download requirements.

#### **3.4.1.4 Export to PowerPoint**

In the Case Notes pane, click on the  icon to export a case to PowerPoint. This opens a page in which the text and images to be included in the presentation can be selected.

#### **3.4.1.5 Export Images**

In the Case Notes pane, click on the  icon to export selected images from a case to another location. This opens a page in which the images to be exported can be selected and export options (format, compression rate etc.) can be set.

### **3.5 Editing a case**

The editing (adding, modifying, deleting cases) functionality is not available in the demo version provided via the MiASoft web server.

## 4 e-Learning

### 4.1 Start e-Learning application

Access the e-Learning section by clicking the  button on the main toolbar.

In the demo version the following options are available:



#### **AiMS Case Collection**

Create a new teaching session based upon a case collection.



#### **AiMS Case Collection - Speed Test**

Create a new teaching session based upon the AiMS databases. You will only be allowed a user defined amount of time to submit a diagnosis.



#### **AiMS Database**

Create a new teaching session based upon the AiMS databases.



#### **AiMS Database - Speed Test**


Create a new teaching session based upon the AiMS databases. You will be allowed a user defined amount of time to submit a diagnosis.



#### **Quiz Demo**

A selection of questions with a difficulty level of 1 or 2.

### 4.2 Run a new session


A new session can also be created by clicking the 'New Session' button  on the main toolbar. This gives the same options as above.

Clicking on one of the options opens a page to configure the parameters of a preset session and create a learning session.

Clicking on "Create Session" will start the chosen session.


### 4.3 Resume a previous session



Clicking on the  icon in the toolbar denotes a session that has not yet been completed can be resumed (opens a selection page).


### 4.4 Design a new session



Clicking on the  icon on the toolbar activates an advanced design menu enabling users to design their own learning sessions, including options like Multiple Choice Questions (not available in web demo version).


### 4.5 Teaching logs



Clicking on the  icon in the toolbar displays the teaching log which records the details and results of the executed session (users with higher privileges can see other user's logs, e.g. for educators).


### 4.6 Resuming a Previous Session



By clicking on the  icon you can select a previously uncompleted session to be resumed from where the session was interrupted.


Clicking on the red button to the left of the session name allows you to delete it.

## **5 Web Administration**

Click on the  button on the main toolbar to access the Web Administration (WebAdmin) page.

Users of the web demo version only have access to the 'Change password' option.

### **5.1 Change Password**

Click on the  icon to open the page to change the user password.