



Installation Guide

TRIL Centre's BioMOBIUS™ Research Platform: an Open, Shareable Software and Hardware System

Audience

ALL

Purpose

To ensure that the user setting up the environment has the entire requisite software infrastructure to successfully install and use BioMOBIUS™

Pre-requisites

System running Microsoft Windows XP Pro SP3

Version: 1.2

Content

Introduction to BioMOBIUS™

BioMOBIUS™ is a portfolio of hardware and software dedicated to the rapid creation of **information technology solutions for biomedical research**. The use of sensors, cameras, computers and other information technology is an essential enabler for many types of medical care and clinical research. BioMOBIUS™ supports the creation of **solutions**, combinations of hardware and software which monitor and report upon the health and activities of patients and research subjects.

A typical BioMOBIUS™ solution includes some **sensor hardware** which monitors a particular behavioural marker such as gait stability, blood pressure, alertness or social activity, some **processing functionality** which converts the sensor data into meaningful data.

BioMOBIUS™ must be installed as a first step to creating a BioMOBIUS™ solution. This document describes the technology pre-requisites to setting up BioMOBIUS™.

Summary

To run and develop BioMOBIUS™ applications, the core infrastructure required is:

- 32-bit Windows XP Pro
- BioMOBIUS™ (go to download section of biomobius.trilcentre.org for download)

For developing new BioMOBIUS™ blocks, the core infrastructure required is:

- 32-bit Windows XP Pro
- BioMOBIUS™ (go to download section of biomobius.trilcentre.org for download)
- EYESWEB SDK (version of which has to match Eyesweb version included in BioMOBIUS™, See Developer Guide)
- Visual Studio 2005 C++ professional with Service Pack 1 installed.

Components

BioMOBIUS™ pulls together the following components

1. A kernel on which BioMOBIUS™ applications run. This is referred to as the EyesWeb Runtime Kernel Server.
2. The EyesWeb Graphical Development Environment (EyesWeb GDE) in which applications are created.
3. A User Interface Designer tool for creating frontends to BioMOBIUS™/EyesWeb applications.
4. A library of functional code 'blocks' which are combined to create EyesWeb patches and then BioMOBIUS™ applications.
5. Tools, processes, documentation, guidelines, examples and tutorials to support the development of new functional blocks and new applications.
6. Hardware elements such as sensors and cameras.

Note: 'BioMOBIUS™ ' in this document refers to the entire software system for the creation of BioMOBIUS™ applications, is based on the EyesWeb graphical development environment, a UI development tool, the block libraries, catalogs, etc.

The BioMOBIUS™ platform also consists of hardware components that are not within the scope of this document.

BioMOBIUS™ builds on the EyesWeb initiative by the University of Genoa. Many of the technical details of BioMOBIUS™ reflect those of the EyesWeb system.

All software elements of BioMOBIUS™ can be downloaded from the internet.

Pre-Requisites for Installation

Windows XP Pro is the recommended operating system platform. The EyesWeb graphical development environment does not at this time run under Linux or any other UNIX operating system, nor does it run on any Apple operating system. (**Note:** BioMOBIUS™ applications, developed with the BioMOBIUS™ system, may run on other Windows platforms.)

Users of the BioMOBIUS™ environment should be Power Users or Administrators of the PC on which BioMOBIUS™ is installed.

Microsoft Visual Studio 2005 C++ professional with Service Pack 1 installed.

It may be noted that user interfaces can communicate with their patches via a network connection; this means that the user interface can run on a separate platform to the underlying application and server.

Installation

Step 1

Download the current version of the BioMOBIUS™ installer from the following web site:

biomobius.trilcentre.org

File size is approx 135 Megabytes.

Download times varying according to your bandwidth. Approximate times are:

Connection Speed	Time in minutes
256Kbps	47
512 Kbps	23
1.024 Mbps	12
1.544 Mbps (DS1,T1)	08
2.048 Mbps (E!, ISDN-32)	06

Step 2

Run the installer "BioMOBIUS_setup_x.x".

Depending on the existing system components installed on your computer, you may be asked to restart the computer.

Please do so to complete the installation process when asked to.

Congratulations on installing BioMOBIUS™.

Final Step

Please read 'Guide to the Documentation.pdf' as the next step to inform you of the documentation that is available to help you get started.

There is link listing the different documents provided in the documentation

Start->Programs->BioMOBIUSX.X->BioMOBIUS Documentation

Technical Note

A windows service is installed by default by the installer; the windows service name is 'eyesweb'.

In version 1.0 it is called 'eyesweb'

In version 2.0 it is called 'biomobus2.0_service'

All versions can be started in the same way by doing the following from the start menu.

Start->Programs->BioMOBIUSx.x->Start Kernel Runtime Server

BioMOBIUSx.x being the version you have downloaded.

This service is a convenience to allow the UI runtime to find the patches associated in a particular path (**C:\biomobius_workspace\Patches**).

The above service is **not** turned on by default. The user can turn on the service with the provided link in the start menu folder.

Start->Programs->BioMOBIUSx.x->Start Kernel Runtime Server