



# OpenEyes - Visual Fields

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## Target Audience

General Interest	
Healthcare managers	
Ophthalmologists	✓
Developers	✓

## Amendment Record

Issue	Description	Author	Date
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# Table of Contents

<b>Introduction</b>	<b>4</b>
<b>Process</b>	<b>4</b>
<b>Performing the test</b>	<b>5</b>
Enter patient data	<b>5</b>
Select and run the test	<b>5</b>
<b>Proposed server software requirement</b>	<b>5</b>
<b>OpenEyes requirement</b>	<b>5</b>

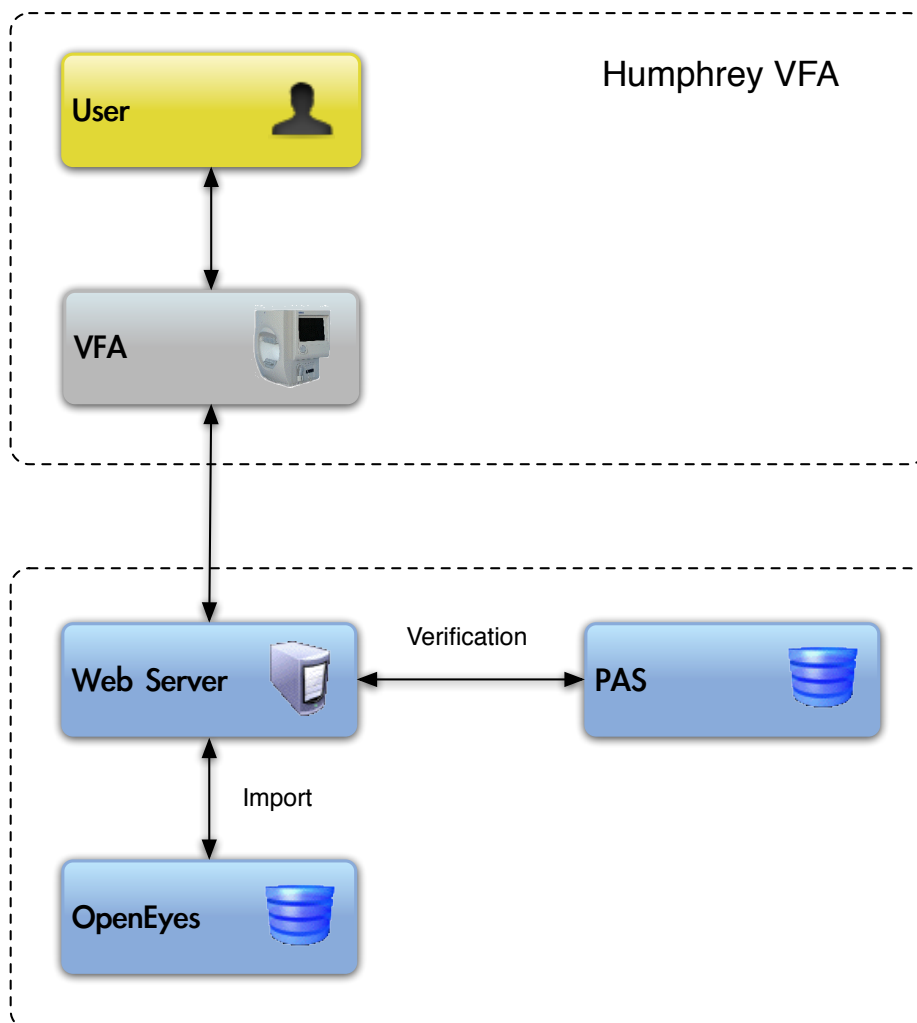


## Introduction

The management of patients with glaucoma depends heavily on regular assessment of visual fields. The Humphrey automated visual field analyser is in common use in many eye departments, and there is a need to smoothly integrate the results of field analysis with OpenEyes. This document outlines a proposed system of integration and workflow which should minimise the need for user interaction.

## Process

The latest generation of Humphrey VFA can be configured to save the results of a field test to a pre-defined location (which may be on a network). The results are saved in the form of data stored in XML files, and in the form of graphics (PDF or TIFF files). The saving of these files can trigger a process of integration of the data with the appropriate OpenEyes record. The following diagram illustrates the relevant components;



The following sections describe in detail how this can be used to automate the process of integration as much as possible.



## Performing the test

The following steps are required to be performed by the user running the field test.

### 1. Enter patient data

The machine allows input of the following data items;

Item	Description	Comments
ID	A unique patient ID	Usually the hospital number
Name prefix	A title such as Mr or Mrs	
Family name	The surname of the patient	Always entered, but may also include first name
Middle name	The middle name of the patient	
Given Name	The first name of the patient	
Suffix	Any title or other suffix	Rarely used

### 2. Select and run the test

The user then selects the required test, and the program starts. On completion of the test, the machine will save the results to a network location set in the configuration.

## Proposed server software requirement

A dedicated piece of server software is required to fulfil the following functions;

- Continuously watch a pre-defined subdirectory on the server (to which the Humphrey machine is configured to save the output files) and carry out the following tasks as shown in the flow chart.
- Validated the patient details (stored in the XML file) against those in the Patient Administration System (PAS).
- If the validation fails, the files are then moved to an 'error' directory which will require intermittent user intervention. Some way of alerting the field technician would be desirable.
- If validation succeeds, the field can then be imported into the OpenEyes record, according to an algorithm based on the presence of open episodes. If no episodes are open, or the target episode is ambiguous, then the files are moved to a holding directory.
- When the user logs onto the appropriate patient record, then in most cases the fields will be already there. In those cases with more than one open episode, then the user is alerted to the presence of files in the holding directory and offered the opportunity to import them.

## OpenEyes requirement

- When a patient record is opened, the holding directory is scanned for the presence of files associated with the patient. If they are detected, then the user is asked whether they should be imported into the current episode.

