OpenEyes - Development Structure

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Target Audience

General Interest	✔
Healthcare managers	✔
Ophthalmologists	✔
Developers	✔

Amendment Record

Issue	Description	Author	Date
0.90	Draft	Bill Aylward	7 Sep 2011

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Introduction

This document outlines the recommended process for development of new components for OpenEyes. For the purposes of this document, a ‘component’ will normally consist of one or more OpenEyes events, which together form a logical collection designed to deliver circumscribed functionality, for example software required to provide electronic patient record functionality for cataract surgery.

Process

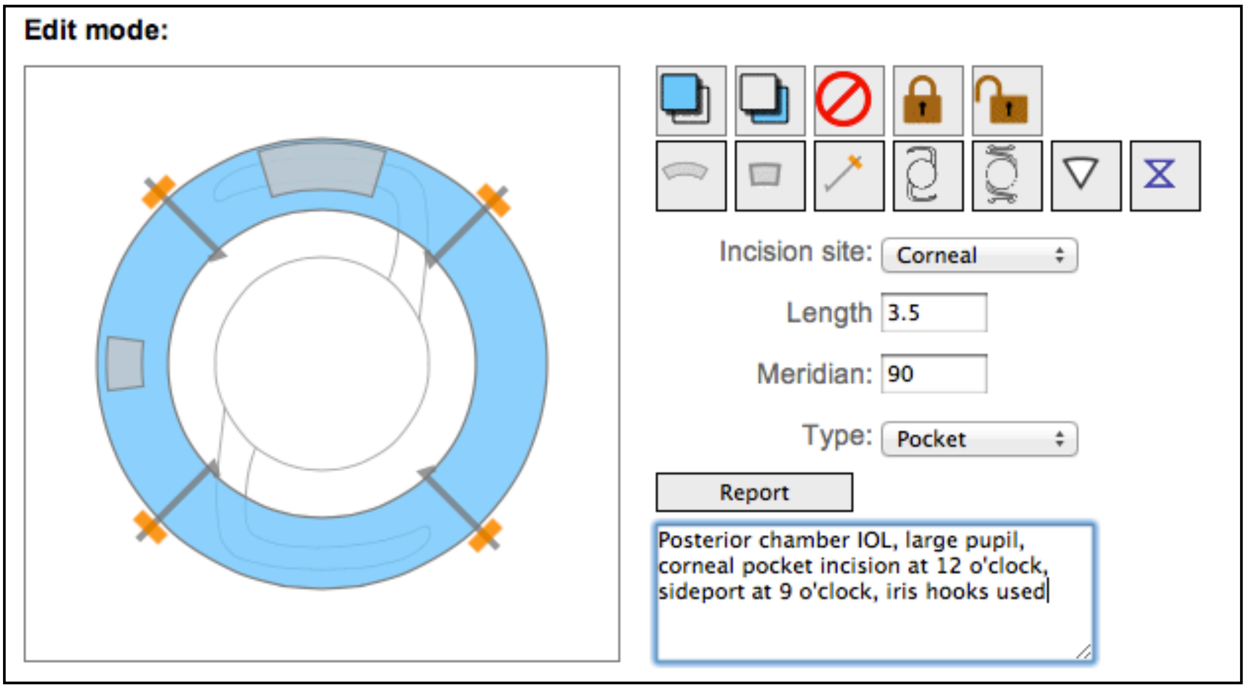
OpenEyes is a clinically led project, so the starting point is the creation of collaborative groups of clinicians from a variety of hospitals and other settings, with a keen interest in the development of top class electronic patient records. These groups are coordinated by the OpenEyes Foundation. The following paragraphs describe in detail the process required from the generation of initial ideas, to the completed software components.

1. Requirements gathering

The initial phase of requirements gathering will be the responsibility of the collaborative group lead, in conjunction with the Project Director, and the Product Manager. The output of this process will be a document listing data items, process mapping and other details.

2. Definition of events and elements

The OpenEyes team will then analyse the output of step 1, breaking it down into a series of event types and elements. Draft mockups of the elements will be posted on the development section of the OpenEyes website, for viewing by the team, and by the collaborative group. An example for an element of the cataract operation note is shown in the following screen shot.



Edit mode:

Incision site: Corneal

Length 3.5

Meridian: 90

Type: Pocket

Posterior chamber IOL, large pupil, corneal pocket incision at 12 o'clock, sideport at 9 o'clock, iris hooks used

3. Consultation

A period of consultation with feedback, and iterative development of the posted elements will then take place. OpenEyes email discussion groups will be used to collect the feedback. Once consensus has been achieved, the elements and the design will be signed off by the group lead.

4. Production of requirements document

The OpenEyes team will then produce a detailed document describing the event types, and elements required. The document will be in a suitable form for the development team to code against, and will be in a format suitable for agile development.

5. Development planning

The OpenEyes team will then estimate the resources required and, taking into account concurrent activity, come up with an approximate duration for coding. As the OpenEyes elements 'library' grows, it is expected that the production of event types will become easier.

6. Coding of prototype

The development team will code to the requirements document, and produce a prototype.

7. Quality assurance

The OpenEyes team will internally test the code, correcting bugs as they are found. This process will be led by the OpenEyes quality assurance person.

8. User acceptance testing

A period of user acceptance testing, particularly involving the major potential users, and the collaborative group members, will then take place, with the software posted on the external staging server.

9. Bugs and enhancements

The feedback from users and testing will result in a list of bugs and enhancements. These will be prioritised by the team, and a best estimate made about the time required to work through the list. At this stage in the process an approximate release date will be estimated.

10. Preparation

In each trust intending to use the software component, a period of preparation will take place. This will include planning for the introduction, preparation of training materials, and the setting up of local support systems as required.

11. Release

The debugged code will then be released and made available to all OpenEyes sites.