Group Name: Pen & Paper

Group Members: Gerald Manweiler, Eddie Tai, Ashely Dawn Brown, James Cadek

Division of Labour:

Gerald Manweiler - administration, paper prototype, client liason,

Ashley Dawn Brown – experimental testing methodology

Eddie Tai – online documentation

James Cadek – time management, full project brief

All – need for material

Project Description:

The main objectives of this project is to capture and digitize graphical and/or textual annotation on a paper geographic information system map, and be synchronized with relevant audio and & video information.

The project source is Trevor Wiens of Apropos Information Systems. His goal is to use it with his product LOUIS Heritage, a tool to help indigenous people to preserve, protect and promote their traditional knowledge and values. LOUIS Heritage allows text, maps and media files to be stored and used together.

The project is scientifically interesting because a portable integrated media geographic information data capture system, based on tracking an infrared dot on a paper surface, does not currently exist and could be beneficial to many other scientific fields.

The system should work by using infrared tracking technology on a pen in order to determine the location being referenced on a paper geographic information system map. The aim of the system is to be extremely portable, requiring only a paper map, a laptop computer, a small amount of infrared tracking hardware, and a video camera.

The physical component of the interface will be infrared tracking hardware, in the form of a infrared pen and wii remote. The computer will feature a simple interface that lets a user enter basic info on a laptop (Map #, Customer/Witness, Date, etc) and then a button to start and stop the recording.

Evaluation of Interface:

The main forms of evaluation of this project will be:

- Ease of use and start up time for preparing a recording

- The subdivision accuracy of the motion tracking (Our client specified a 1mm accuracy goal)

- The versatility of hardware positioning

- Ease/Accuracy of calibration

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