TITLE

OPEN SOURCE IN USE FOR THE CULTURAL HERITAGE COMMUNICATION PROCESSES

Proposed by

Name: Pilar Chias
Professor, Dr. Architect – University of Alcalá (Spain)
e-mail: pilar.chias@ciccp.es
Research Group of the University of Alcalá: “Sustainable Restoration and Management of the Cultural Heritage” (Intervención en el Patrimonio y Arquitectura Sostenible, CCTE2006/F34)

Proposal Date
Approval Date

Other Interested Participants
Politecnical University of Valencia,
University of Valladolid,
Consejo Superior Geográfico (Spain),
Instituto Geográfico Nacional - CNIG (Spain),
Institut Cartogràfic de Catalunya (Spain)

RELEVANCE AND IMPORTANCE TO THE OBJECTIVES OF CIPA

Objectives according to CIPA “Wish-List”

1. To promote Open Source software products as alternate tools at all stages of the CH documentation / CH management / CH communication processes

   - Giving publicity to previous and future successes and activities of the Task Group: knowledge transfer by designing a strategical plan based on:
     - Workshops, videoconferences and courses:
       - Included on the Posgraduate and Master Programmes of the Universities and Technological Institutes
     - Website:
       - Actualized state of the art, critical comparison of existing proprietary software processes with Open Source solutions
       - Online training courses and experiences
       - Conference recordings
     - DVDs, course materials and handbooks
       - Published in association with Universities and Technological Institutes
   - Social and professional networks
   - Discussion Forum: Blog

2. To provide reliable standardized methods and solutions as a support to the communities involved on CH documentation / management / communication processes

   - Data search and documentation techniques:
     - Data quality, data formats, compatibility
     - Data archiving and recording:
       - Archiving formats and transfers
   - Data processing and modelling; data analysis processes
   - Presentation techniques:
     - Drawing and cartographic processing methods
     - Render, animation, multimedia
     - Reports, maps,

3. To provide the main guidelines for a sustainable low-budget CH management to all the involved communities

   - CH restoration and maintenance
   - CH and sustainable tourism
1. **Project Background and Context**: As a precedent and a basis for future developments, we will continue the works developed by the Task Group at its former stage under the direction of Markus Jobst, of Research Group Cartography at Vienna University of Technology. The new context will be enriched with new objectives: a) to transmit the results using new ways of communication; b) to involve the Universities in both theoretical and training courses; c) to involve the professional associations.

2. **Project Location**: Escuela Técnica Superior de Arquitectura y Geodesia, Universidad de Alcalá (Madrid, Spain).

3. **Target audiences**:
   - a) All professionals and communities involved in CH documentation / management / restoration / communication;
   - b) Undergraduated students of (Archaeology, Architecture, Information and Communication Techniques, Geography, History and Documentation, Cartography, etc.), that need a technical and theoretical training, as a complementary formation;
   - c) Undergraduated students of related Institutes and Universities;
   - d) Students that want to attend a postgraduate course.

4. **Partners and supporting communities**:
   - Previous cooperations (to be kept):
     - The *ICA Commission of Maps and the Internet*: cartographic and spatial communication processes.
     - *Arc-Team* community: archaeological documentation and processing methods.
     - The *Cultural Heritage Computing (CHC) Salzburg*: DBMS, design of archiving and data accessing procedures.
     - The *publishing company JOBSTMedia*: experience on the previous stage of the Task Group.
   - New partners:
     - The University of Alcalá (Spain):
       - Website host and maintenance
       - Discussion forum
       - Online courses and materials
       - Graduate and postgraduate courses
     - Other Institutes and Universities: Vienna University of Technology, Politechnical University of Valencia (Spain), University of Valladolid (Spain), La Sapienza (Roma, Italy), Paris-La Villette (France), among others.
     - The Association of Spanish Architects, the RIBA, the Spanish Geographic Council (Consejo Superior Geográfico), the Spanish National Geographic Institute (Instituto Geográfico Nacional-CNIG), the Institut cartogràfic de Catalunya (Barcelona, Spain); as well as other professional associations.
     - Connection to other communities involved in CH sustainable restoration and management and in CH sustainable tourism.

5. **Methodology**: Use of Open Source software products as an alternate high quality tools for all stages of the CH documentation and communication processes (applied to selected and significant case studies): 1. Meetings to define the design of the strategies to be followed, according to a participatory design (main guidelines, check list, standards, open sources to be applied to, comparisons to proprietary software); 2. CH documentation methods and techniques: data research: desk research, archive research, field observations, other available data sources (compatibility, formats, etc.), data from convergent fields (Archaeology, Cartography, Architecture, Urban Planning, Soundsapes, etc.); 3. Data recording and archiving procedures: data management systems DBMS, structuring and design; 4. Cartographic sources, image processing: remote sensing, aerial photography; 5. GIS and data management and analysis; 6. Output design: reports, graphics and maps production, multimedia, spatial modeling and visualization (rendering, animations, etc.); 7. Final meetings with stakeholders: conclusions, final report and design of educational tools and strategies, as well as training courses.

6. **Outputs and Deliverables**: The Task Group will define chronological tasks of the (spatial) communication process, associate available Open Source solutions and accordingly extend this website, DVD’s, workshops, course materials and handbooks. A direct comparison of existing processes so far (with proprietary software) with Open Source solutions may allow quality and usability predictions for methods with Open Source.

7. **Initiatives**: This former list of initiatives for the use and support of Open Source software is a very small excerpt taken from the precedent stage of the Task Group activities. It presents an overview on how diverse the work with Open Source can be: there are initiatives that focus on the creation of software, others play their role in the Open Source community by promoting present software, writing tutorials and handbooks or exploring and handing over bugs of the applications: Arc Team, GDF Hannover, Sourceforge, Slax, OpenOffice, Scribus, Inkscape.
PLANNING OF ACTIVITIES (Description of Phase, List of Deliverables, Time Table)

Use of Open Source software products as an alternate high quality tools for all stages of the CH documentation and communication processes (applied to selected and significant case studies)

Phases:
I Meetings to define the design of the strategies to be followed, according to a participatory design (main guidelines, check list, standards, open sources to be applied to, comparisons to proprietary software)
II CH documentation methods and techniques: data research: desk research, archive research, field observations, other available data sources (compatibility, formats, etc), data from convergent fields (Archaeology, Cartography, Architecture, Urban Planning, Soundscapes, etc.)
III Data recording and archiving procedures; data management systems DBMS, structuring and design
IV Cartographic sources, image processing: remote sensing, aerial photography
V GIS and data management and analysis
VI Output design: reports, graphics and maps production, multimedia, spatial modeling and visualization (rendering, animations, etc.)
VII Final meetings with stakeholders: conclusions, final report and design of educational tools and strategies, as well as training courses

Deliverables:
a. Website, blog and discussion forum
b. Online courses and videoconferences
c. Online materials
e. Printed handbooks and materials, DVDs (University of Alcalá Press)
f. Master and Postgraduate courses
g. Special undergraduate subjects or trainings

TimeTable:

| Phase | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|-------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| I     | x | x |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| II    |   |   |   |   |   | x | x | x | x | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  |
| III   |   |   |   |   |   |   | x | x | x | x  | x  | x  | x  | x  |   |   |   |   |   |   |   |   |   |   |
| IV    |   |   |   |   |   |   |   | x | x | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  | x  |
| V     |   |   |   |   |   |   |   |   | x | x  | x  | x  | x  | x  |   |   |   |   |   |   |   |   |   |   |
| VI    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | x | x | x  | x  |   |   |   |   |   |   |
| VII   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | x  | x  | x  | x  |   |   |