

Multimedia Map for Tourism Advertisement of Ha noi

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SUMMARY

Nowadays, the strongly development of economic involve the entertainment demand of people. The demands of tourism and services have increased dizzily. Multimedia map is the one of important tools which can support and serve the requirement about information and other services of tourism areas, heritage sites in country. Multimedia technologies has been applying in various fields like: television, mobile technologies, internet... the article introduced result of Multimedia technology apply to building Multimedia map for tourism advertisement of Ha Noi.

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1. INTRODUCTION

Tourism maps are the maps which are used for tourism purpose, on the maps, it display necessary object and information for tourist such as: tourism points (beach, hotel, guest house, theatre, museum...), landscape, tour views, heritage also with transportation and public services. Tourist maps also have characteristic as a draft. Includings with the map are legend, picture and draw,... Tourist maps may be a general map follow the tour line or city maps, tourist areas.

All most of previous tourist maps had been producted on the paper, so information capacity in a map was very limited. It made the request that me have to build new map product which can bringing more information to user, it can have various type of information such as texts, sounds, images, movie,...With the high develope of information technology, digital cartography and multimedia technology, it made the new map generation intergrate these technologies.

Based on applying of digital cartography and multimedia technology, we conducted the research in order to build a tourist map for Ha Noi.

2. INTRODUCE ABOUT MULTIMEDIA TECHNOLOGY

In our real would, human alway get and process the information for our life. We get the information by our sensors such as eyes, nose, skin, ears, tongue. The combination of many kind of information about objects, events will help us recognizing and understanding them. Multimedia technology can be definded as a technology of communication which use many kind of media such as sounds, images, texts, animation. In a short period of time, human can get the information by various ways such as listen to sound, see the animation, picture, understand the text,...Multimedia technology help user to re-product a part of “real space” in an event. Most favorite applications of multimedia technology are modern television technology, film and 3D effects, help audience feel the real world in film, made them feel more attractive, deeply information recognition and closed to natural senses.

The components of multimedia include: Sounds, texts, videos, images, animations.

Multimedia map is a special map product, which is producted by intergration of multimedia components.

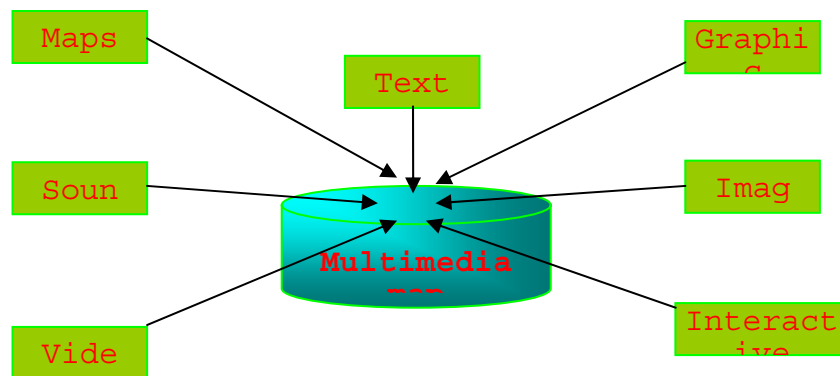


Fig 1: Describe for multimedia map.

3. APPLY IN INTEGRATING DIGITAL CARTOGRAPHY AND MULTIMEDIA TECHNOLOGY IN TOURISM ADVERTISEMENT OF HA NOI.

3.1. Describe for product.

The product is the intergration of thematic map and component of multimedia. It is designed, edited, builded and published in the CD-Rom. The tourist maps are edited in digital format by CAD software such as Frehand, affter that map are intergrated with multimedia components. Finally, products are packed for indipendent work with various version of Window OS such as: Window 9X, WindowXP, WindowNT,...Objectives of product are useful for view on the screen, un-break the space understanding of map model, improve the useful of digital map, avoid the limit of viewspace on screen and intergrate multimedia components will each geographical objects or events on the map.

On the digital map, each object is displayed by a symbol. There symbols are design based on objects content, especially in tourist map, symbol system is designed very impressive and similarly with real objects.

The main purpose is building the link from each symbol to multimedia components, one symbol can link with all of multimedia components.

3.2. Building the multimedia map for Ha Noi.

3.2.1 Building thread.

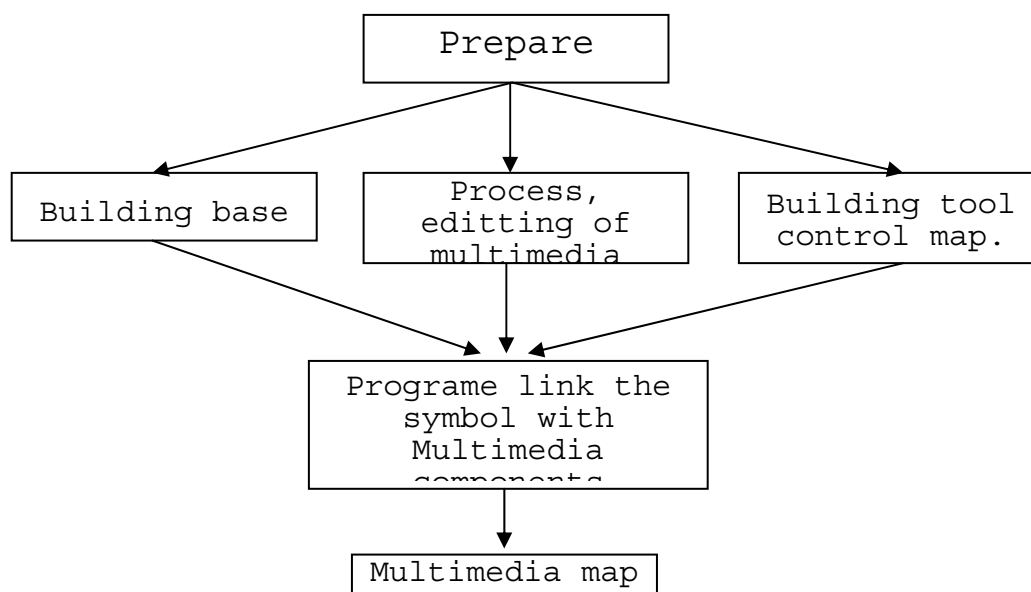
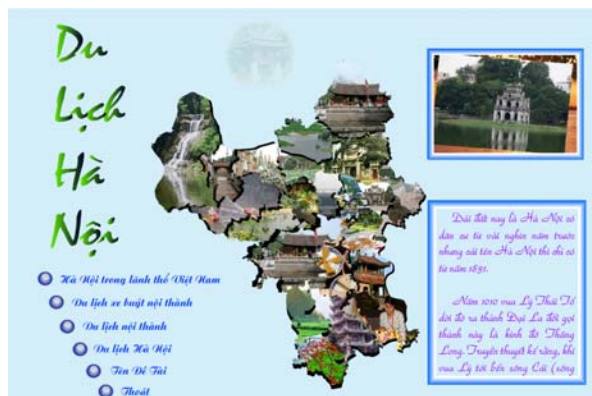


Fig 2: Building thread of multimedia map.

3.2.2 General design.

Multimedia map is design with ordering inclusion are main page, position of Ha Noi province in Viet Nam page, Page about Ha Noi tourism and page of Nha Trang city tour guide. Except the main page, all of page are designed in one order include: Map title, mapdisplay frame, image and video frame, text frame and controlling compomnents (figure 3)



Main page



Position of Ha Noi province in Viet Nam page.



About of Ha Noi tourism page.



About of Ha Noi's down town tourism page.



About of Ha Noi's down town tourism by bus page



About of Ha Noi's old town tourism page.

Fig 3: Disposition of map page.

3.2.3 Symbol system design for map pages.

There are 4 type of symbol: Graphic, movie clip, button, character are used in this map. Each type is created by a group of objects or animations for many difference purpose. In these 4 symbol type, movie clip and button are mostly used, we can recoding for these two in order to process an action based on our requirement.

Ord	Name	Display	Type symbol	Ord	Name	Display	Type symbol
1	Point tourist		Button	18	Bus station		Button
2	Vestiges of history		Button	19	Bar		Button
3	Harbour		Button	20	Railway-Station		Button
4	one-way traffic road		Button	21	Hospital		Button
5	Hotel		Button	22	Post office		Button
6	Bank		Button	23	Stadium		Button
7	Pagoda		Button	24	Tourist on mountain		Button
8	Church		Button	25	Business centre		Button
9	Old house		Button	26	Market		Button
10	Theatre		Button	27	School		Button
11	House of culture		Button	28	Chemists shop		Button
12	Triển lãm		Button	29	Boating		Button
13	Restaurer		Button	30	Swimming pool		Button
14	Museum		Button	31	Tourist ecology		Button
15	Air-port		Button	32	Control sound		Button
16	Cinema		Button	33	Tool control map		Button
17	Urban		Button	34	Button link to Legend		Button

Table 1: Symbol system used in multimedia tourism map of Ha Noi.

3.2.4 Connect map symbols with to multimedia components.

The connection from multimedia information to map symbols is established by ActionScript2.0 programming language. The structure of this programming language is simply and easy in use. For example: with a button, we create an action link from it to the multimedia components by that code:

```
on(release) {  
    _root["text"].gotoAndStop(...);  
    _root["picture"].gotoAndStop(...);  
}
```

In the bracket “()” the place the index number of frame which contains information about text and image of this button. That means when we click the button, a command is released and activates two movie “text” and “picture” to display information in text format and image of object wanted to present.

3.2.5 Establish the multimedia map pages.

A multimedia map after editing and finalization is a movie, this movie is a collection of movie clips, each movie clip should be put in individual layer in order to edit easily. The movie clips are adjusted and arranged to not be unexpected overlay, synchronization with real time. A movie clip is a movie included in a bigger movie which we can control by using interactive controllers. These controllers are built by ActionScript. A movie clip has its own time line and independent from main movie's time line.

The result of the process is a multimedia map program, upon it, we can perform various of interaction such as: zoom in, zoom out, extract information of map objects, full view,...(fig 4).



Zoom in map.



Zoom out map.



Full view map.



Look up information of object on the map.

Fig 4: The functions in map page.

3.2.6 Creating some controlling function of map.

In this map, controlling functions include: zoom in, zoom out (magnify) and pan view, full view,... these functions are written by actionscript. There are same example codes for creating map controlling functions here:

+ That code to describe for zoom in function  on the map.

```
Phongto.onRelease = function () {
    bando._x +=10;
    bando._y +=10;
    bando._xscale +=25;
    bando._yscale +=25;
}
```

+ That code to describe for zoom out function  on the map.

```
Thunho.onRelease = function () {
    bando._x -=10;
    bando._y -=10;
    bando._xscale -=25;
    bando._yscale -=25;
}
```

- + That code to describe for pan view function  on the map.

```
onClipEvent (mouseDown) {if (this.hitTest(_root._xmouse, _root._ymouse)) {
this.startDrag();}}
onClipEvent (mouseUp) {if (this.hitTest(_root._xmouse, _root._ymouse)) {
this.stopDrag();}}
```
- + That code to describe for fit view function on the map.

```
Thutoanbo.onRelease = function (){
    bando._x = 525;
    bando._y = 155;
    bando._xscale = 84;
    bando._yscale = 84;
}
```

3.2.7 Finally multimedia map product.

The edited map files and build applications have to convert these formats in order to security the database. It need to create Autorun file befor burn out the product in to a CDRoom. In order to create Autorun file, we use CD menu pro6.0 software, this is a profesional pake age for autorun files creating in CD or DVD.

After creat autorun file, we perform product packing. This product was packed by I2go software, it is a profesional packing software for programming product and application. Result of packing process is a setup file. This file can be install or independent run map product in PC. Finally, we colect all of components files an burn them in a CDRoom.



Fig 5: The face of AutoRun on CD-Rom product.

4. CONCLUSION.

Based on researching and experiment, we can get some conclusions and recommendation in this research.

Multimedia cartography is not a newest technology but it now is becoming a popular not only in world wide but also in Viet Nam. Application of it can replace traditional map product such as paper maps.

Multimedia cartography provide to user many benefit, it can apply in various of field tourism, atlas, education, national defend,...etc.

Multimedia technology require experts knowledge not only in mapping but also in information technology and visual art in order to create a successful products.

Multimedia cartography intergrate with GIS and net work technology will open new in cartography and Geo visualization.

Experiment product need to be improved in future with higher designing and GIS integrated in order to provide an useful and beatyful product.

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