Multimedia in Russian Museums

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Introduction

The purpose of this presentation is to outline the Museum Multimedia (MM) experience in Russia. I am quite not sure wether all my colleagues - experts and museum community in West Europe and America are intimately familiar with Russian experience in this sphere and I am pleased to have this opportunity to fill the gap. I will mainly focus on the general picture for some more reports with detailed description of the most interesting Russian MM projects are expected to be presented in near future.

Museum and Multimedia - two aspects

First of all I would like to emphasize, that when discussing the problem "Museum and Multimedia", we should distinguish between two notions: **Multimedia in Museums** (which implies application of multimedia to internal use in museums) and **Museums in Multimedia** (when museum collections are considered to be the initial material for creation of external multimedia products). These two kinds of multimedia products serve different demands, and they use different design.

Multimedia in museums functions in the area of registration, building up a collection, treatment of the museum objects, restoration treatment, and exhibition activity. As a rule, there are special MM systems for the museum staff. Curators, restorers, museum experts will use these systems for the execution of various research requiring viewing and analysis of the images, for the simulation work, for the creation of the expert systems in art. For example, when the exhibition is being prepared, the MM product enables the exhibitioner to compile series of "virtual exhibition halls " and to model successful choice of exhibition space. But the first thing a museum must begin with is to create the Data Base (DB) including the museum collection data (text and images) as a background for the MM products, and it is a great problem for the museum.

Museums in Multimedia as mentioned above, represents the museum DB as background for creation of MM-production intended for wider distribution. The principal question we will have to answer is: what is the best way to use the museum capabilities (collection, intellectual potential of the staff, accumulated methodical experience etc.) for more effective application of MM in various outside spheres: leisure, culture, common and special training, publishing, safety, commerce. This viewpoint

represents the "external interests" of the museum, and the range of the potential users in this sphere is rather wide.

Apart from above I should like to mention one more aspect: it considers MM as an instrument for the creation of a product which could satisfy the requirements of works of art (I have seen such products at the SYSGRAPH conference in Moscow). I suppose it will be a new kind of arts: Computer Artefact, that will be included into museum collections. However, I do not undertake to discuss this problem now and leave it for the art historians.

Three stages of Multimedia in Russia

Let me now turn to multimedia technology in museum sphere in Russia. As a matter of fact, it has been springing up before our eyes from the late end of 80's. Three stages could be pointed out in Russian MM History: the "ancient" age, the "medieval" age, and "contemporary" age.

The "Ancient" Age

That was the time of craftsmen, who developed their original "home made" projects. One of the first MM products designed in 1989-90 was an interactive system on the picture of the outstanding Russian artist A.Ivanov, named "Christ Appears to the People" (a free translation from Russian). It was executed on one 1.4 MB diskette and included about 10 color images. The design level was rather primitive: a user could only monitor his way from one to another image (or a fragment of it) by the mouse.

The "Medieval" Age

In 1990-91 some improved MM products incorporating a combination of Hypertext and some dozen of images were designed, for example: Hyperguide to Armenia, Troizko-Sergieva Lavra, Trip on Moscow Kremlin and others. In 1990 I was very impressed with the Lavra's design level, when a candle bursting into flame appeared on the monitor; none of my colleagues could observe such an effect before.

A more complicated technology appeared in Russian multimedia products in 1992-1993. It included all the elements of present-day multumedia: interactivity, hypertext, images, sound, animated pictures, movies. So, all these components came to Russian MM products. Several groups of computer science and museum experts were organized for multimedia design process; the level of work became rather high. The only limitation was the lack of equipment to produce CD-ROM; only 1,2 MB and 1,4 MB diskettes were available for distribution, and it was a very serious stumbling block. That is why Russian teams had to use 10 and more diskettes for their MM products then.

Some other technologies found application in Russia by that time. The State Russian Museum together with Leningrad Centre of Mathematical Simulation supported by two firms from Great Britain manufactured interactive videodisc "Masterpieces of the Russian Museum". The Tretiacov Gallery, using WORM technology, prepared and demonstrated two disks presenting collections of the Russian painters L.Aivasovskiy and V.Perov. Unfortunately, there are some problems with WORM standards and this technology can be applicable only to internal tasks of the museum.

The "Contemporary" Age: the Russian CD-ROM (some examples)

A breakthrough came in 1994, when some Russian institutions and plants acquired new equipment for producing CD-ROM. Some CD-ROM about museum collections and art galleries have been accomplished, others are expected to be ready soon, for example: "Russian Icons", "Russian Modern Artists", new series of "The Moscow Kremlin" and "The State Hermitage" and others. Let me give some examples of Russian CD-ROM products:

In 1994 ARTINFO Company published CD-ROM "Contemporary Artists in Russia" intended for auctions and galleries. It contains information on galleries which present contemporary art (painting and sculptures). The data incorporates subject index, gallery index and artists index to information about the appropriate items with further links among them. A helpful interactive system provides the user with a smooth path in looking for essential data. A sequence of color pictures along with the information about the artist is displayed on the screen. Each painting can be enlarged on the fool screen.

One more example is the first CD-ROM from a seria "The Moscow Kremlin". It was also published in 1994. This commodity-oriented program is rather more complicated. The content includes three divisions: Travel around the Kremlin, Romanov Dynasty, Faberge Easter Eggs collection. All of them are linked to one another through the hypertext. Some indexes (persons, events, artifacts, buildings, term descriptions) are used. The system enables the users to find out all kinds of information in the form of photographs, text, drawings, movies, animated diagrams. To provide interest for children, some sections of the program were developed as games..

I am convinced that exactly the CD-ROM technology will be the most perspective one in Russia. As for CD-I, we do not use this kind of CD in this country for the time being, and I do not think this technology is going to be widely practiced in nearest future.

New problems, new solutions

As far back as a year ago, whereas we did not have any CD-ROM equipment at our disposal, we thought that if we had money to buy such equipment, all our problems would be solved straight away. It did not happen, though. Our dreams came true: now a number of institutions have the instrumentation to produce CD-ROM, hundreds of computers are fitted with CD-ROM drivers. But in spite of that we face a lot of new problems tied in a knot now, some new obstacles of objective and subjective character have arisen in multimedia production. One of them is how to gather a hardworking team.

A problem: to gather a hardworking team

It is quite an imperative to establish a hardworking team when starting such a huge and expensive job as developing a CD-ROM multimedia product. The team must make correct statement of the problem and keep the design process under control. The personnel of a project team depends on many circumstances and may be changed in the course of time. A typical project team consist of two divisions: a museum division and a division of the company - owner of multimedia technology.

The museum division includes the project supervisor, text and visual presentation authors (curators), experts in museum database. The project supervisor must be a person liable for the project in general, he (or she) must be skilled in multimedia technology, system analysis, museum collection management. Most often, it is an expert in museum computer department. The main goal of the museum division is to design the "core frame of the project", to prepare the context of the project: text and sequence of pictures. As a rule, the museum administration is not willing to pass the collection data to other institutions. Large museums usually have the equipment to input data to the computer and pass the files to the partner, but sometimes the company division receives initial text and slides - it depends on peculiar circumstances, experience of the museum computer staff and other.

The company division makes draft versions on the hard disk. The results are discussed with the museum division, and if the results satisfy the requirements, the company prepares the master-disk and sends it to the plant for making copies. Sometimes programmers become too enthusiastic at enormous technological opportunities, and as a result they misuse sophisticated design: consequently, the interface becomes too complicated to the detriment of content. In our new projects we try to proceed step by step, from simpler to more and more complicated tasks, analysing every intermediate result.

As a rule, the marketing tasks in Russian projects are the prerogative of the company team.

Multimedia Market in Russia

I would not contend, that in Russia we have a civil market of MM production - but we are on the way to create it. Before 1993 - 1994 there was no necessities of market: we could hardly have two dozen CD-ROM driver owners in Moscow that time. The "market boom" came in 1994, when CD-ROM drivers and CD-ROM production came to the Russian market in one continuous stream. Some publishing companies were making attempts to introduce MM products to the market. The publishing company Media Mechanics has achieved the most success.

This company was set up in 1993. A group of the young professionals have graduated from the special multimedia courses in Holland, and now the Multimedia Mechanics has a perfect team of the specialists skilled in art. At the moment Multimedia Mechanics is the leading MM publishing company in Russia. The challenge, the company administration's efforts were focused on, was to create the user's market in Russia and to introduce the MM production to this market. The company's first-mover strategy was not only to design and produce CD-ROM products, but to begin with the promotional advertisement and to set up sales outlets. A shrewd move was made: a special MM department was opened in the "House of Book" - a very prestigious book-shop in the centre of Moscow, at the famous Arbat. Some more sale outlets were set up later (at the moment - about 40 all over the country). The company's price - list includes about 20 CD-ROM made in Russia, and more then 400 foreign items. Art is a special part , including, for example, "Art History Encyclopedia", "Coats Art Review: Impressionism", "World Religion" and other. As a rule, the prices are within the range of 10 - 40 $. The company keeps a close eyes on the market.

The legislative problem

The legislative problem is of critical importance in this country which has been a country of lawlessness for more than 70 years. The Law "On legal Protection of Programs for Electronic Computers and Databases" was adopted only in 1992 - so, we have a very poor practice applying the Low to computerised products, and our practice is mainly based on precedents. Basically, an agreement is concluded between a museum and the company - owner of multimedia technology for every particular project. It contains regulations, concerning rights and duties of primary participants of multimedia projects (individuals and institutions) : text authors, image creators, designers, programmers, museum, manufacturer etc. According to our experience, copyright on the text and visual material belongs to the museum; copyright on the technology - to the partner company. We are convinced that it is very crucial to work out precise rules coordinating museum/publishing company partnership.

Museum Staff Training

A significant difficulty in introducing MM products in museums is the concervatism of the museum staff; everybody knows, that curators are the most concervative class of the society. The most advanced equipment and newest technologies could not produce any effect if people are not ready to use them or are unable to adapt to them psychologicaly. MM will not be TERRA INCOGNITA for those, who will graduate tomorrow or even today. But there are a lot of curators, who have never studied informatics. That's why we consider MM training as a very important part of MM in Museum strategy. One of the most effective types of activities in this field is the advanced training of the museum experts at the Russian Institute for Advanced Training of Specialists of Culture and Art. At the Chair of Computer Sciences of this institute, specialists study the basics of computer science and learn to work with the most available programmes, including MM. The educational program is continually updated.

Conclusion

The museums in West Europe, USA, Canada had began with MM technology before Russia. Thus, in our work we were trying to avoid "a bicycle invitation" and were using the experience of our foreign colleagues. We could not avoid some mistakes, but "only those who does not work does not make mistakes". Now we have accumulated some experience and I would like to express our hope that the contacts between Russian experts and specialists from America and West European countries will be useful for both sides and become an accepted norm; we believe that exchange of information and, some day, work on joint projects would be useful for both sides.