

Delivering Multimedia Projects

Introduction

Testing should be done before the work is finalized and released for public or client use.

- ▶ Early products may result a bad reputation
- ▶ Major difficulties in testing

Its performance depends on

- specific hardware and system configurations
- End users' connection speeds (in the case of the Internet)

Introduction

Spend a good portion of testing time because:

- ▶ Any element of a computer's configuration may cause problems or bugs
- ▶ Some software may interact with your program in unexpected ways
- ▶ additional time required for organizing platforms and repairing reported problems
- ▶ It is not possible for even a well-equipped developer to test every possible configuration of computer, software and third-party add-on boards.

Testing

The terms **alpha** and **beta** are used to describe levels of product development when testing is done

▶ Alpha releases

- With a selected group of users from project team
- contain errors and bugs

▶ Beta release

- Send to a wider group but still select audience
- Contain errors and bugs
- Reputation will begin here (because product is being shown and used in outside)
- Bugs are typically less dangerous than alpha bugs

Alpha testing

- ▶ The first phase of project testing
- ▶ Testing group usually consists of colleagues' friends and those who are known to the organization
- ▶ The tests are conducted under all possible conditions that can be expected in the client's workplace
- ▶ The bugs generated are called "Alpha Bugs"
- ▶ Remain flexible and open to changes in both the design and the behavior of the project in reviewing the comments
- ▶ Beware of alpha testing groups made up of kindly friends who can provide positive criticism
- ▶ The output of Alpha testing is generated as a report and the identified bugs or modifications are fixed

Beta testing

- ▶ Testing group should be representative of real users
- ▶ Don't include persons from production group
- ▶ Testers should not have defined ideas
- ▶ Managing beta test feedback is critical, because if you ignore or overlook testers' comments, the testing effort is a waste.
- ▶ Ask your beta testers to include a detailed description of the hardware and software configuration at the time the problem occurred and a step-by- step recounting of the problem, then you can recreate it, analyze it and repair it.
- ▶ Testers should seek general comments and suggestions.

Preparing for Delivery

After completion, multimedia project will be delivered to the clients

- ▶ Need to prepare files to be transferred easily to the user's platform.

Installation

- ▶ With installation of the system, it may require to install special system files and run-time files
- ▶ Provide a single program that acts as an installer
- ▶ So that end users can easily and automatically set up the project or application on their own computers

Preparing for Delivery ...

Documentation

Provide well-written documentation including:

- Installation process with a clear step-by-step procedure to follow
- Discussion of possible problems and constraints related to the target platforms
- Appropriate warnings provide through the installation
- A file named README.TXT or ReadMeFirst
 - A simple text file accessible by any text editor
 - It should contain a detailed description of the installation process.

Preparing for Delivery ...

- ▶ The clearer and more detailed installation instructions lead to fewer queries from project's users
- ▶ Set up a product related web site with pages for software registration, bug reporting, technical support and program upgrades.

File Archives

- ▶ One or more of the files in your project can be compressed into a single file called an archive.
- ▶ Compressed file take less time to transmit than uncompressed files
- ▶ Most software that involved uploading and downloading online files automatically handles compression or decompression
- ▶ Self-extracting archives are useful for delivering projects on disks in compressed form

File Archives ...

- ▶ Some compression applications allow you to compress, split and store large files on several floppy disks or Zip disks; the segments of these files are then automatically rejoined during installation.
- ▶ Most compression utilities provide an encryption or security feature, so that people who have access to disks containing private archive files cannot read them without authorization. This helps to hide confidential data.

Packaging

- ▶ Packaging is where sales and marketing issues in the process of making multimedia into the real world of end users.
- ▶ The purpose is to impress the users:
 - CD – pretty cover, cardboard box, and shrink-wrap that is required
 - Web – sufficient storage media or upload it to a server

Delivering on CD-R (Compact Disc-Recordable)

- ▶ An excellent method for distributing multimedia projects
- ▶ Blank CD-r discs are inexpensive and for short runs of a product it is more cost effective
- ▶ CD-R blank can hold as much as 84 minutes of *read book* sound or more than 700 MB of data
- ▶ They are made of a polycarbonate core coated with layers of reflective metals and special photosensitive organic dyes
- ▶ During the burning process, laser light hits the layer of dye, bakes it and form a pit



Compact Disc Standards

In 1979, Philips and Sony together launched CD technology as a digital method of delivering sound and music to consumers.

- ▶ This collaboration resulted in the **Red Book standard** officially called **Compact Disc Digital Audio (CD-DA) Standard**
- ▶ The Red Book standard defines the audio format for CDs available in music stores today
 - Allows for up to 74 minutes of digital sound
 - Sample rate of 44.1Khz, or 44,100 samples per second
 - Transfer rate of 150 kilobytes per second
 - Can contain up to 99 tracks



Compact Disc Standards...

The **Rainbow Books** are a collection of standards defining the formats of Compact Discs

- ▶ Yellow Book is for CD-ROM
 - Extension of RedBook
 - allow **CDs** to contain 650MB of computer data instead of only digital audio data
- ▶ Green book is for CD-I (Interactive)
 - Complete self-contained system which supports text, graphics, audio, image and video
 - CD-I is a complete delivery platform for multimedia applications.



Compact Disc Standards...

- ▶ Orange Book
 - for write-one, read-only CDRoms
 - Capable of music and data
 - Introduced the standard for multisession writing
- ▶ White Book is for Video CD
 - Format: MPEG-1 (VCD), MPEG-2 (SVCD)
 - defines other hybrid formats, by combining different formats (CD Audio & CD-I)



Compact Disc– Advantages / Disadvantages

- ▶ WORM discs are permanent (Write Once Read Many)
- ▶ Optical discs require special drives to read/write.
- ▶ Optical storage does not provide enough data storage in comparison to other storage technologies
- ▶ Less expensive for small content
- ▶ Optical storage rewritable formats suffer from compatibility issues between drives.



Wrapping it up

- ▶ If your project is to be sold into the consumer retail channel, then you have to make a title
- ▶ Software titles are most often distributed on CD-ROM.
- ▶ The software itself may indeed be only one item in a package that includes
 - User's manual
 - Registration card
 - Quick reference guide
 - Relevant marketing material



Wrapping it up

- ▶ The art of your cover should reflect the content and function of the enclosed product
- ▶ It should have a good design layout
- ▶ Your company's logo should be important
- ▶ If this is one of a series of titles, the artwork should match with the look or style designed for the series
- ▶ The current trend in software packaging is toward simplification, boxes and bright packages become old-fashioned items



Delivering on the World Wide Web

- ▶ Delivering in the World Wide Web can be as simple as renaming a directory or transferring a group of files to a Web server.
- ▶ Intended audience on the Web
 - the general public
 - an intranet audience on the Web
 - Selected users behind a firewall
- ▶ If you own or host the delivery Web server yourself, you will have
 - Better security control
 - better integration of your project into your internal LAN
 - you can fine-tune the server's configuration parameters specify and install any special software you need.

Delivering on the World Wide Web...

- ▶ When you have control of the server
 - you can provide secure commerce services for credit cards transactions
 - Encryption and password
 - For multimedia projects requiring streaming technologies such as RealAudio or video conferencing you can purchase and install the necessary software on the server.
 - Be sure your project will register with the search engines and can be easily found.

Delivering on the World Wide Web

Advantages / Disadvantages??