Multimedia data elements

- text
- facsimile (or fax)
- document images
- photographic images
- geographic information system maps
- voice commands and synthesis
- audio messages
- music
- graphics
- moving graphics (animation)
- full-motion stored and live video
- holographic images
- fractals

Series of phases:

- planning
- production
- building
- testing
- delivery

Planning consists of several stages, from **conceptualization** to **finalization** of the concept, and moving on to production phases. Initial planning requires you to develop and understand some basic questions:

- What do I want to create?
- Why is it being created?
- What is the message to be conveyed?
- Who is the audience for the presentation?
- Who is the client for whom the project is being done?
- How is the content to be delivered?

Multiple platforms / multiple browsers

Once you have a clear understanding of the project scope and have formulated an idea about the content and presentation, a **proposal** should be developed. This proposal serves several purposes:

- It requires you to present an **organized plan for creating and delivering** the presentation.
- It summarizes the **project scope** and direction.
- It identifies the **audience**.
- It identifies the project **message**.
- It **identifies the client** for whom the project is being done.

Nature of the project

- Hired by an outside client?
- "Hired" by a group internal to your company?
- Personal project?

Content design

Ideally, a team can be assembled based on the necessary project skills:

- graphic designers
- scriptwriters
- audio and video production personnel
- an instructional designer
- a producer,

at a minimum. However, in reality, many of these tasks end up being handled by less than a full team; a few people may have to handle many tasks. Keep in mind, however, that the skills involved in designing great-looking visuals or recording great video and audio scenes are quite different from the project management and visionary skills of the producer. Content design can only be as good as the resources dedicated to producing the multimedia elements. Audiences today expect TV and movie quality and impact even when viewing computer-based multimedia content; it's better to have a **simple**, **clear**, well-done presentation than develop a large, complex presentation with poor audio, video, and images.

Often, an overlooked part of multimedia content creation is the information design stage. Regardless of the individual pieces of multimedia content, it is the organization and presentation of the content that makes the project a success. **Information design** organizes and integrates all the media pieces into a **clear and accurate representation of the information**. Spend time in the early planning stages to develop a clear, effective information design that puts all the multimedia elements and the overall project message in the best possible perspective.

Content development

The processes and procedures for developing the individual multimedia elements vary depending on the source of the media:

- Does the media already exist?
- Do new media elements have to be created?

Obviously, if the media already exists the tasks are more related to editing. New media production requires far more work, from planning through testing and delivery. However, the opportunities for producing media elements that are better suited to your project and for providing overall higher-quality sources for possible later use are much greater and are generally worth the time, cost, and effort.

Common multimedia computer applications include:

- games
- learning software
- reference materials (encyclopedia)

Multimedia Applications

Multimedia has had an enormous impact on education. For example, medical schools use multimedia-simulated operations that enable prospective surgeons to perform operations on a computer-generated "virtual" patient. Similarly, students in engineering schools use interactive multimedia presentations of circuit design to learn the basics of electronics and to

immediately implement, test, and manipulate the circuits they design on the computer.
Multimedia is also used in commercial applications. For instance, some amusement arcades offer multimedia games that allow players to race Indy cars or battle each other from the cockpits of make-believe giant robots. Architects use multimedia presentations to give clients tours of houses that have yet to be built. Mail-order businesses provide multimedia catalogues that allow prospective buyers to browse virtual showrooms. Real estate companies use QTVR technology to help the customer in understanding what they will get without seeing the real stuff.

Learning process as opposed to **tools**

Software

Image editing (Raster)
Adobe Photoshop, Macromedia Xres, Live Picture, PaintShop Pro, Corel Photo-Paint, Macromedia Fireworks
Image editing (Vector)
Adobe Illustrator, Deneba Canvas, Macromedia Freehand, Macromedia Flash, CorelDraw, AutoCAD and lots of other CAD programs
Image utilities
DeBabelizer, Graphic Converter (Mac), ACDSee, MetaTools Kai's Power Tools, IrfanView, Adobe ImageReady, Macromedia Fireworks, iView Multimedia (Mac), Extensis Portfolio
Bitmap to vector
Adobe Streamline, CAD programs, CorelTrace, Macromedia Freehand, Adobe Illustrator
3D modeling software
Maya, Lightwave, Cinema 4D, Artlantis, ArchiCAD, 3D Max, MiniCAD / Vectorworks, SoftImage
Audio recording and editing
Sound Forge, SoundEdit, Sound Studio (Mac), WinAmp, iTunes (Mac), Cubase
Video editing
Adobe Premiere, Combustion, Adobe After Effects, iMovie (Mac), MetaTools Final Effects, Final Cut Pro (Mac), Flint, QuickTime Pro
Animation
Macromedia Director, Macromedia Flash, GIF animators, Adobe LiveMotion (SVG), 3D modeling software
HTML editing
Macromedia Dreamweaver, Adobe GoLive, shareware HTML editors that can be found from internet, Netscape Composer, Microsoft FrontPage, Extensis BeyondPress
Font editing
Fontographer
Font managers
ATM Deluxe, Extensis Suitcase
Internet browsers

Internet Explorer, Netscape Navigator / Communicator, Opera, Mozilla, iCab (Mac)
FTP – HTTP download – upload
Download accelerator, CuteFTP, Getright, Teleport Pro, Interarchy (Mac), iGetter (Mac), Transmit (Mac), Fetch (Mac)
Offline downloaders / browsers
OfflineExplorer, PageSucker, BackStreet Browser, WebDevil (Mac)
Page Layout
QuarkXpress, Adobe In Design, Macromedia Freehand, Adobe Illustrator, CorelDraw
e-document creation
Adobe Acrobat
QTVR
QuickTime VR Authoring Studio
Panorama Makers
Panorama Factory, PanoWeaver, QuickTime VR Make Panorama, RealViz Stitcher, MGI Photovista, PanoTools, PanaVue Image Assembler
Image clipping
Corel Knockout
VRML, 3DMF, 3D Shockwave
Texture Creation (TextureMagic)
Image sharpening (S-Spline, Genuine Fractals, etc.)
OCR (Abbyy FineReader)
File Renamers
PhotoMozaics
Macintosh utilities (MacOpener, MacDrive)
CD Burners (Nero, Roxio EasyCD Creator)
Screen capture (SnagIt)
Compression utilities (WinRAR, WinZIP, ARJ, Stuffit)