

## ABSTRACT

Morphing is the process of transforming one image to another. This software is easy to use for the beginners, but full of many advanced options for complicated morphs. This program can morph one image to another or add effects to one picture. The resulting animation can be computed and displayed real-time or it can be saved into the disk. Image morphing techniques can generate compelling 2D transitions between images. we implement our domain using Delaunay triangulation algorithm

Here we have to consider a triangulation of a finite set of points  $S$  and a set of triangles whose vertices are the points in  $S$  and whose edges connect pairs of points in  $S$ . Each points of  $S$  is required to occur in at least one triangle. The edges are only allowed to intersect at the vertices. An optional requirement is that union of the triangles is the convex hull of  $S$ . Using Delaunay triangulation we have to maximizing the minimum angle produces .so here we consider a triangle whose 3 edges are in RGB formats first splits each triangle sharing  $E$  into two sub triangles then we have to check the edge is equal to  $E$  then we have to insert the subtriangle in to destination triangle. The adjacent triangle might need edge swap. Delaunay Triangulation algorithm implemented so as to eliminate duplicate input points. The triangle-based Triangulation algorithm is more fastest because it provides divide-and-conquer method; it is worth exploring in some depth. At first glance, the algorithm and data structure seem incompatible. The divide-and-conquer algorithm recursively halves the input vertices until they are partitioned into subsets of two or three vertices each. Each subset is easily triangulated (yielding an edge, two collinear edges, or a triangle), and the triangulations are merged together to form larger ones. If one uses a degenerate triangle to represent an isolated edge, the resulting code is clumsy because of the need to handle special cases. One might partition the input into subsets of three to five vertices, but this does not help if the points in a subset are collinear.

## **SYSTEM STUDY AND ANALYSIS**

System analysis is a process of gathering and interpreting facts, diagnosing problems and the information to recommend improvements on the system. It is a problem solving activity that requires intensive communication between the system users and system developers. System analysis or study is an important phase of any system development process. The system is studied to the minutest detail and analyzed. The system analyst plays the role of the interrogator and dwells deep into the working of the present system. The system is viewed as a whole and the input to the system are identified. The outputs from the organizations are traced to the various processes. System analysis is concerned with becoming aware of the problem, identifying the relevant and decisional variables, analyzing and synthesizing the various factors and determining an optimal or at least a satisfactory solution or program of action.

A detailed study of the process must be made by various techniques like interviews, questionnaires etc. The data collected by these sources must be scrutinized to arrive to a conclusion. The conclusion is an understanding of how the system functions. This system is called the existing system. Now the existing system is subjected to close study and problem areas are identified. The designer now functions as a problem solver and tries to sort out the difficulties that the enterprise faces. The solutions are given as proposals. The proposal is then weighed with the existing system analytically and the best one is selected. The proposal is presented to the user for an endorsement by the user. The proposal is reviewed on user request

and suitable changes are made. This is loop that ends as soon as the user is satisfied with proposal.

Preliminary study is the process of gathering and interpreting facts, using the information for further studies on the system. Preliminary study is problem solving activity that requires intensive communication between the system users and system developers. It does various feasibility studies. In these studies a rough figure of the system activities can be obtained, from which the decision about the strategies to be followed for effective system study and analysis can be taken.

Here in the Morphs' Soft, a detailed study of existing system is carried along with all the steps in system analysis. An idea for creating a better project was carried and the next steps were followed.

## **EXISTING SYSTEM**

Existing system refers to the system that is being followed till now. The main disadvantage of the existing system is wastage of time, poor visual quality of morphs obtained and lack of user friendliness.

In early days morphing was done by cross dissolving (e.g. linear interpolation to fade from one image to another) of the source and destination image are visually poor. The results are poor, because in general the features of the source and destination will not be aligned. In simple cross dissolve, the double-exposure effect will be apparent in misaligned regions. The other algorithms used are mesh warping, thin plate spline warping, feature based warping etc.

The existing system requires more computational time, more manual calculations, and the complexity involved in Selection of features is high. The other disadvantages are lack of security of data, more man power, Consumes large volume of pare work etc.

To avoid all these limitations and make the working more accurately the system needs to be computerized.

### **Draw backs of existing system.**

- Time consuming. - i.e., we cannot adjust the frame.
- We can't possible morphing when 2 image sizes are different.

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## **PROPOSED SYSTEM**

The aim of proposed system is to develop a system of improved facilities. The proposed system can overcome all the limitations of the existing system. The system provides proper security and reduces the manual work. The existing system has several disadvantages and many more difficulties to work well. The proposed system tries to eliminate or reduce these difficulties up to some extent.

The proposed system is image morphing based on the Delaunay triangulation. The proposed system will help the user to reduce the workload and mental conflict. The proposed system helps the user to work user friendly and he can easily do his jobs without time lagging. High speed and security are the main advantages of the new system. The system is very simple in design and to implement. The system requires very low system resources and the system will work in almost all configurations. It has got following features Ensure data accuracy, minimize manual data entry, minimum time needed for the various processing, greater efficiency, better service.

### **Advantages of Proposed System**

The system is very simple in design and to implement. The system requires very low system resources and the system will work in almost all configurations. It has got following features

- Ensure data accuracy.
- Minimize manual data entry.
- Minimum time needed for the various processing

- Greater efficiency
- Better Service
- Minimum time required

## **SYSTEM DESIGN**

System Design is the most creative and challenging phase in the system life cycle. Design is the first step into the development phase for any engineered product or system. Design is a creative process. A good design is the key to effective system. System design is a solution *how to approach* the creation of a new system. System design transforms a logic representation of what is required to do into the physical specification. The specification is converted into physical reality during development.

### **INPUT DESIGN**

Input Design deals with what data should be given as input, how the data should be arranged or code, the dialog to guide the operating personnel in providing input, methods for preparing input validations and steps to follow when error occur. Input Design is the process of converting a user-oriented description of the input into a computer-based system. This design is important to avoid errors in the data input process and show the correct direction to the management for getting correct information from the computerized system. It is achieved by creating user-friendly screens for the data entry to handle large volume of data. The goal of designing input is to make data entry easier and to be free from errors. The data entry screen is designed in such a way that all the data manipulates can be performed. It also provides record viewing facilities.

When the data is entered it will check for its validity. Data can be entered with the help of screens. Appropriate messages are provided as when needed so that the user will not be in maize of instant. Thus the objective of input design is to create an input layout that is easy to follow.

In this project, the input design consists of a log in screen, a screen for changing the user password, and a screen for importing the images for morphing. There is an option to browse the images from the system. The menu bar at the top includes file, account and help.

## **OUTPUT DESIGN**

A quality output is one, which meets the requirements of the end user and presents the information clearly. The objective of output design is to convey information about past activities, current status or projections of the future, signal important events, opportunities, problems, or warnings, trigger an action, confirm an action etc. Efficient, intelligible output design should improve the system's relationship with the user and helps in decisions making. In output design the emphasis is on displaying the output on a CRT screen in a predefined format. The primary consideration in design of output is the information requirement and objectives of the end users. The major formation of the output is to convey the information and so its layout and design need a careful consideration.

In this project, the input and the output screen is on the same window. In the output screen the process of morphing can be viewed. There are options for play, stop, edit the frame settings etc. There is also a status bar showing the progress of the morphing.

## **DATABASE DESIGN**

The general theme behind a database is to handle information as an integrated whole. A database is a collection of interrelated data stored with minimum redundancy to serve many users quickly and effectively. After designing the input and output, the analyst must concentrate on database design or how data should be organized around user requirements. The general objective is to make information access, easy, quick, inexpensive and flexible for other users. During database design, the following objectives are concerned:-

- Controlled redundancy
- Easy to learn and use
- More information and low cost
- Accuracy
- Integrity

## **SOFTWARE DESCRIPTION**

### **VISUAL BASIC**

Visual Basic is a high level programming language which was evolved from the earlier DOS version called BASIC. Visual Basic (VB) is the third-generation event-driven programming language and integrated development environment (IDE) from Microsoft for its COM programming model. VB is also considered a relatively easy to learn and use programming language, because of its graphical development features and BASIC heritage. It is a well developed programming language and supporting resources are available everywhere. Now, there are many versions of VB exist in the market, the most popular one and still widely used by many VB programmers is none other than Visual Basic 6. There is also VB.net, VB2005 and the latest VB2008, which is a fully object oriented programming (OOP) language.

VISUAL BASIC is a VISUAL and events driven Programming Language. These are the main divergence from the old BASIC. In BASIC, programming is done in a text-only environment and the program is executed sequentially. In VB, programming is done in a graphical environment. In the old BASIC, you have to write program codes for each graphical object you wish to display it on screen, including its position and its color. However, In VB, it is just needed to drag and drop any graphical object anywhere on the form, and you can change its color any time using the properties windows. On the other hand, because users may click on certain object randomly, so each object has to be programmed independently to be able to response to those actions (events). Therefore, a VB Program is made up of many subprograms, each has its own program codes, and each can be executed independently and at the same time each can be linked together in one way or another. Visual basic allows us to manage databases created with different database programs such as MS Access, Dbase, Paradox and etc.

With VB 6, it is possible to create any program depending on an objective. For example, educational programs to teach science, mathematics, language, history, geography and so on can be created. It is also possible to create financial and accounting programs to make one, a more efficient accountant or financial controller. Games can also be created through VB programs.

### **Visual Basic Language Features**

Visual Basic not only allows programmers to create simple GUI applications, but can also develop complex applications. Visual Basic 6.0 offers developers the ability to create robust applications that reside on the client or server, or operate in a distributed n-tier environment. Visual Basic 6.0 is the Rapid Application Development (RAD) tool available either as a stand-alone product or as a part of the Visual Studio 6.0 suite of tools.

Programming in VB is a combination of visually arranging components or controls on a form, specifying attributes and actions of those components, and writing additional lines of code for more functionality. Visual Basic can create executables (EXE files), ActiveX controls, DLL files, but is primarily used to develop Windows applications and to interface web database systems. Dialog boxes with less functionality can be used to provide pop-up capabilities. Controls provide the basic functionality of the application, while programmers can insert additional logic within the appropriate event handlers. For example, a drop-down combination box will automatically display its list and allow the user to select any element. An event handler is called when an item is selected, which can then execute additional code created by the programmer to perform some action based on which element was selected, such as populating a related list. Alternatively, a Visual Basic component can have no user interface, and instead

provide ActiveX objects to other programs via Component Object Model (COM). This allows for server-side processing or an add-in module.

The language is garbage collected using reference counting, has a large library of utility objects, and has basic object oriented support. Since the more common components are included in the default project template, the programmer seldom needs to specify additional libraries. Unlike many other programming languages, Visual Basic is generally not case sensitive, although it will transform keywords into a standard case configuration and force the case of variable names to conform to the case of the entry within the symbol table entry. String comparisons are case sensitive by default, but can be made case insensitive if so desired. The Visual Basic compiler is shared with other Visual Studio languages (C, C++), but restrictions in the IDE do not allow the creation of some targets (Windows model DLL's) and threading models.

### **The Visual Basic 6 Integrated Development Environment**

Basically any present computer system should be able to run the program, be it a Intel Pentium II, Intel Pentium III, Intel Pentium IV or even AMD machines, Visual Basic 6 can run without any problem.

A project is a collection of files that make up an application. A default form with the name Form1 will be available to start a new project. On clicking on Form1, the source code window for Form1 as shown in will appear. The top of the source code window consists of a list of objects and their associated events or procedures.

The Visual Basic integrated development environment (IDE) consists of the following elements.

### **Menu Bar**

Displays the commands that is use to work with Visual Basic. Besides the standard File, Edit, View, Window, and Help menus, menus are provided to access functions specific to programming such as Project, Format, or Debug.

### **Context Menus**

Contain shortcuts to frequently performed actions. To open a context menu, click the right mouse button on the object. The specific list of shortcuts available from context menus depends on the part of the environment where you click the right mouse button.

### **Toolbars**

Provide quick access to commonly used commands in the programming environment. On clicking a button on the toolbar once the action represented by that button is carried out. By default, the Standard toolbar is displayed when Visual Basic is started. Additional toolbars for editing, form design, and debugging can be toggled on or off from the Toolbars command on the View menu.

### **Toolbox**

Provides a set of tools that is used at design time to place controls on a form. In addition to the default toolbox layout, one can create their own custom layouts by selecting Add Tab from the context menu and adding controls to the resulting tab.

**Project Explorer Window**

Lists the forms and modules in your current project

**Properties Window**

Lists the property settings for the selected form or control. A property is a characteristic of an object, such as size, caption, or color.

**Code Editor Window**

Serves as an editor for entering application code. A separate code editor window is created for each form or code module in the application.

**Object Browser**

Lists objects available for use in the project and gives a quick way to navigate through the code.

**Steps in Building a Visual Basic Application**

Step 1: Design the interface

Step 2: Set properties of the controls (Objects)

Step 3: Write the event procedures

**The Control Properties**

Before writing an event procedure for the control to response to a user's input, it is recommended to set certain properties for the control to determine its appearance and how it will work with the event procedure. The properties of the controls can be set in the properties window or at runtime.

In the properties window, the item appears at the top part is the object currently selected. At the bottom part, the items listed in the left column represent the names of various properties associated with the selected object while the items listed in the right column represent the states of the properties. Properties can be set by highlighting the items in the right column then change them by typing or selecting the options available. The properties can be changed at runtime to give special effects such as change of color, shape, animation effect and so on. Caption property of a control should be set clearly so that a user knows what to do with that command. One important property is whether the control is enabled or not.