

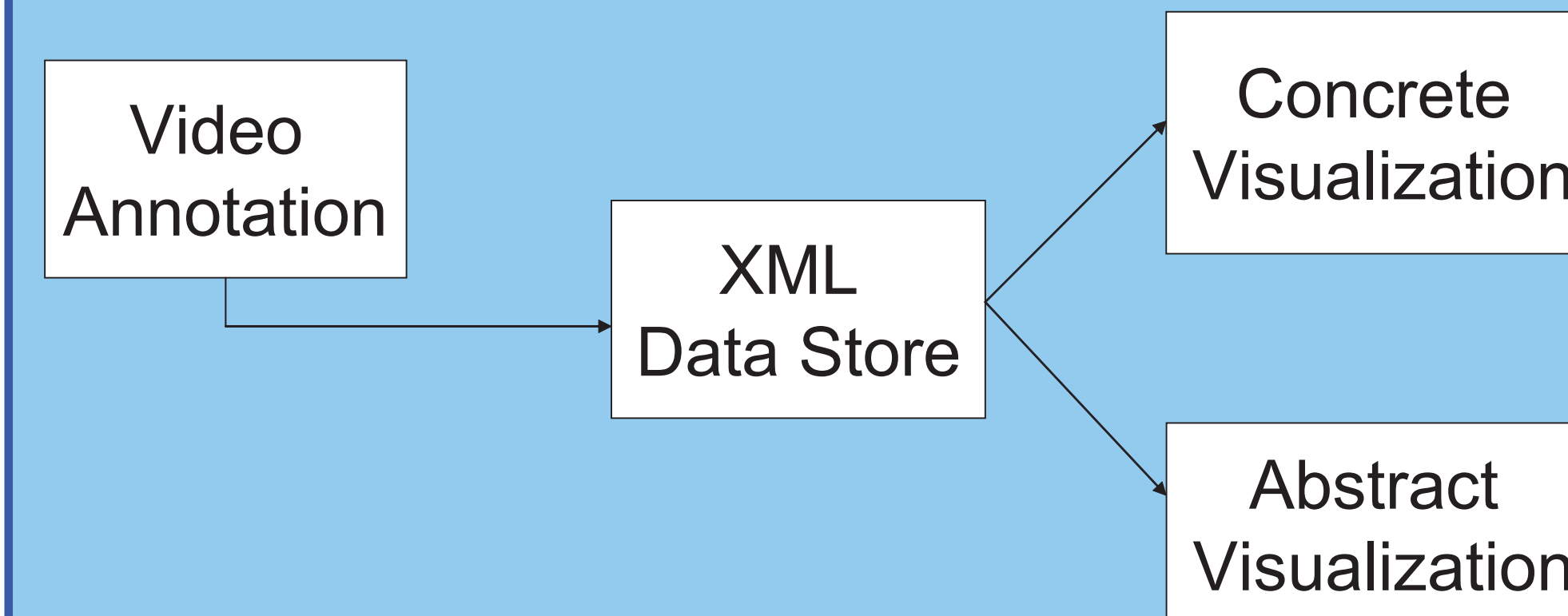
Introduction

With the ease of access to digital forms of media comes a growing flood of information. In the case of television shows each new season brings a new wave of material that a user has to navigate in order to find a relevant episode. How can we present data concerning television episodes or other types of film in a way that will allow a user efficient access, search, retrieval, and browsing of relevant information?

Annotation

- A schema was developed to qualitatively describe each scene's setting, location, characters, content and other relevant information.
- IBM's VideoAnnex application was then used to automatically segment the episode, extract key frames, and generate an XML document containing each scene's description according to the schema.
- The XML document is then parsed and allows for creation of a searchable database of scenes from many episodes.

Process



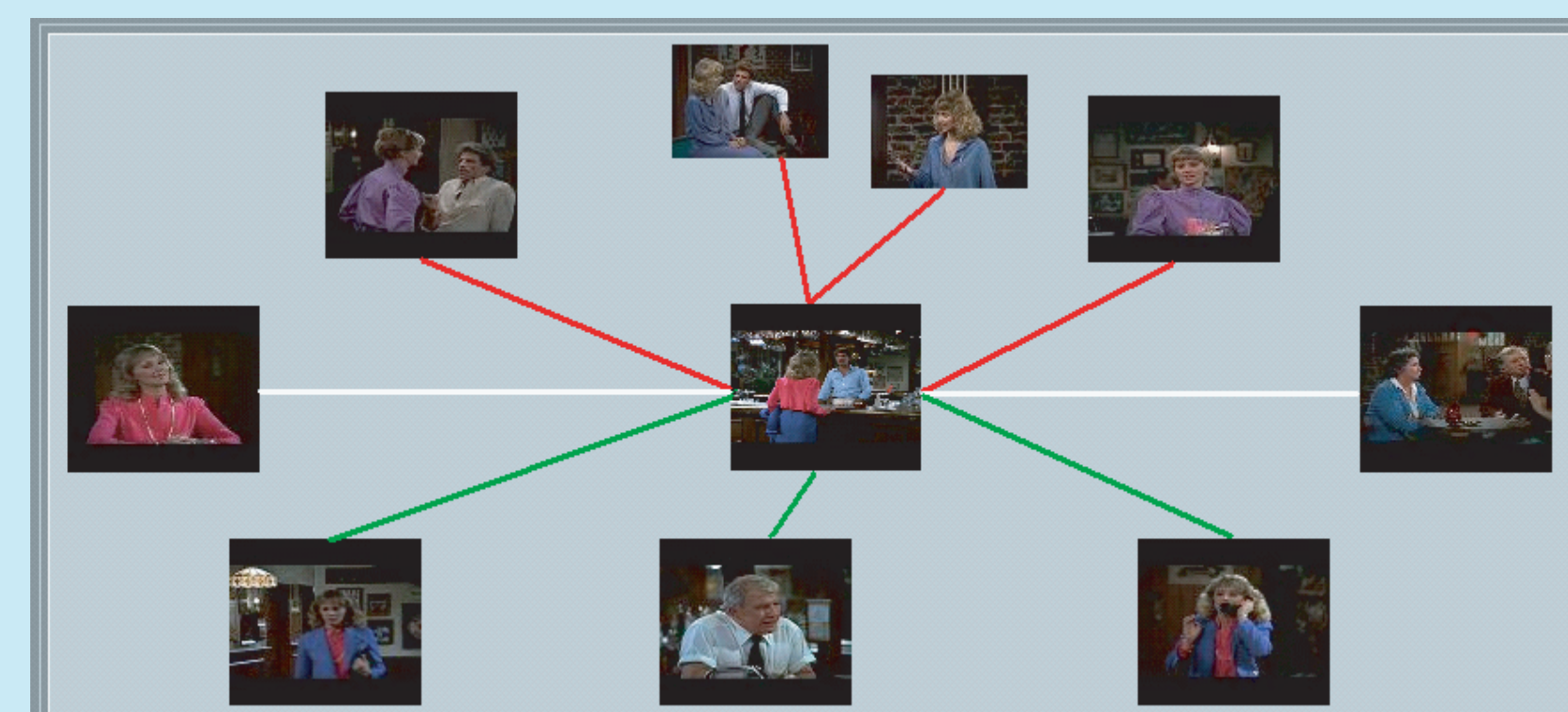
Concrete

- Consists of any number of pre-generated collages of key frames. The collages are to provide as much information as possible to the user in a compact manner.
- The user is able to enter in any search terms which can range from characters, locations or a general idea; this will bring up a display of collages that correspond to the episodes that match the search criteria.
- Selecting a collage will display all relevant information regarding the selected episode including season, episode number, name and a brief description.
- The user can then elect to go to the abstract web visualization of the selected episode.

Visualizations



After searching for the character "Diane", you might get the above representation. Clicking on the top left collages gives pertinent information related to that episode



This abstract view is an example of what would be displayed if the user chose the first episode. From here, if they chose another scene in the web, the visualizations would then rearrange itself around that choice.

Abstract

- A dynamic representation of an episode and other related scenes throughout the database.
- At first the center hosts the most important scene of the episode
- The database contains episodes from the series which are annotated using character, location, and event
- The central scene is connected by different colored lines representing
 1. white, chronological order
 2. red, related scenes in the episode
 3. green, related scenes throughout the series
- Clicking on the surrounding scenes will re-center the web around that scene

Future Work

- Implementation of this project as a java applet which would facilitate the creation of dynamic collages.
- Also the database of information would be stored online to increase availability of different media.
- Application needs user testing in order to judge the effectiveness of the visualization.