SIRSALE: Integrated Video Databases Management Tools

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Motivations:

- Video data are intrinsically different from alpha-numerical data (huge volume and time sensitive delivery).
- Video data contents interpretation could be very subjective (tu donne l'exemple du match de foot qui est dans l'article).
- Digital video contents are growing: more and more video contents are produced and made available by professionals and non-professionals (growing rate of 10% by year).

The need of powerful indexing and retrieval tools
INTRODUCTION

Problematics:

• Context heterogeneity

Semantic content access depends on the user context (context heterogeneity)

• End-user terminal heterogeneity

Made video data accessible to all users independently of the nature of their terminals
Video Indexing

Existing Approaches:

• **Generic Models:**
  • Adaptable for “light” searching and browsing contexts (tu parle de recherche de contenu de manière simple)
  • Not precise enough to cope with the context heterogeneity.
  • do not provide powerful searching capabilities.

• **Dedicated Models:**
  • Specifically tailored for the context of particular domains (soccer for example)
  • Provide powerful searching and indexing capabilities for the specified context.
  • Not generic to be used in other contexts
SIRSALE Goal

Our approach:

Provide end-users with integrated indexing, searching and browsing tools, through the availability of several data models (modules) specifically tailored to support video applications (News, Soccer, Courses, etc.).

Advantage:
• The use of powerful data models that allow efficient exploitation of distributed video data.

Disadvantage:
• The growing complexity that results from the management of several data models.
Il faut dire que c’est uniquement la partie III qui change d’un context à un autre.
1: Ask for a module

2: Send the module

3: Send a request

4: Send the result

5: Ask for a video sequence

6: Send the sequence
Architecture

Modules Server

1: Ask for a package
2: Read files
3: Send Files
4: Create files
5: Add package to the application
SIRSALE Tools

Annotating Interface
Architecture

Annotation Interface
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Remote Client Interface
Examples

Soccer Interface
Examples

News Search Interface
Examples

Searching results window
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Browsing Interface
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Video Data Distribution Management

![Screen shot of a software interface displaying the server information for video data distribution management.](image)
Conclusion and perspectives

• The implemented system shows the effectiveness of our approach.
• Professionnel have gave a positive feedback and suggest further improvements, especially for indexing and annotating. (tu dis qu ’on l ’a montré à des une chaine de télévision france3 qui ont été satisfait)

• Integrate a full parallel multimedia server able to support the expected workload (tu dis qu ’on a une certaine expérience dans les serveurs parallèles)
• Add a presentation tools that allows the construction of complex video presentations from the queried sequences