

Presentation of the Project (Part 1)

Development of Intelligent Systems

Alexis Rene, Ruiz Navarrete¹ Francisco José, Nieto Nieto¹
Jose Miguel, Hernández Palazón¹ Eduard Ionel, Stan²

¹Department of Information and Communication Engineerings
University of Murcia, Spain

²Department of Mathematics and Computer Science
University of Ferrara, Italy

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First steps

Don't reinvent the wheel

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- Experience = null;
- The design methodology used has been *Methodology 101*
- The reuse of ontologies is one of the most difficult tasks:
 - Terminology is "wrong";
 - Ontology is too wide;
 - Different ontology pieces don't fit together.

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Functional analysis

Entities, Relations, Concepts

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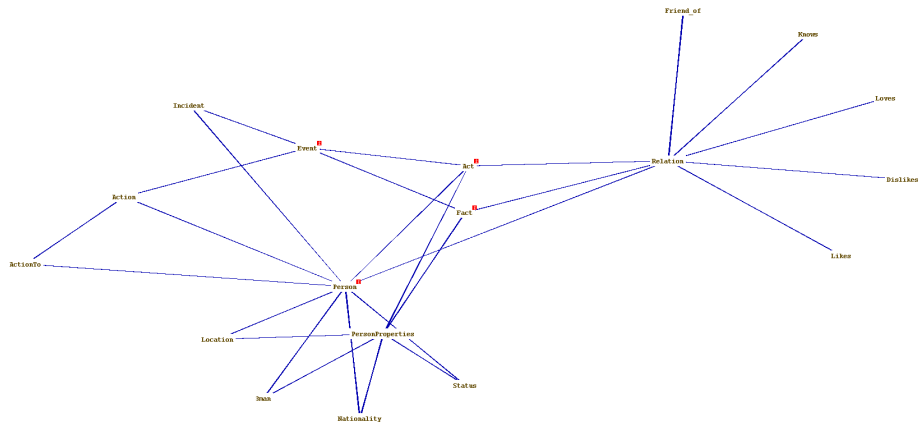
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- PERSONPROPERTIES: *"Which person is The Third Man?" or "Is it alive?"*
- RELATION: What and How people are related.

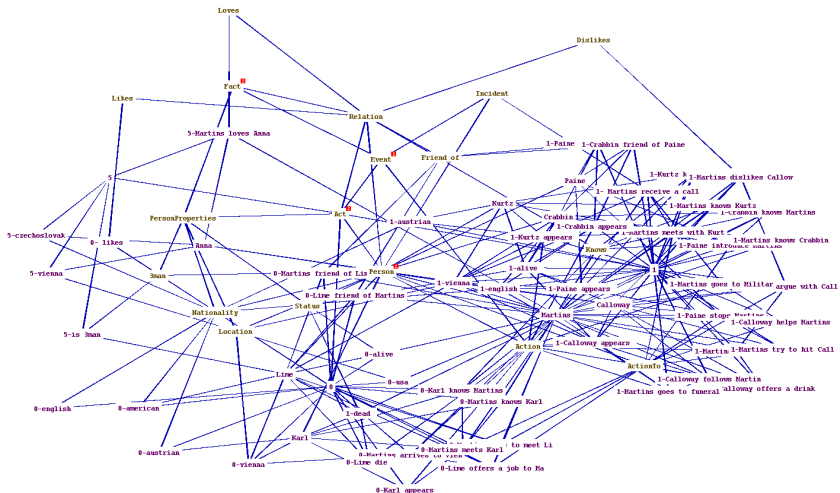
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The class model



The instance model



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Team decisions

Justifications on the design

We have done five iterations of developing the ontology:

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We have done five iterations of developing the ontology:

- **Version 1:** Act, People, Relations;
- **Version 2:** Version 1 with Events and their hierarchy;
- **Version 3:** Version 2 with The Third Man (3man);
- **Version 4:** Version 3 with Facts (Relations);
- **Version 5:** Version 4 with Person Properties.

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Unit test

Example of Act 0, Action and Incident

Act 0:





INSTANCE EDITOR

For Instance: ◆ 0 (instance of Act, internal name is the third man_Class7)   





Act Number

0

3man Act





   

Event Appears

- ◆ 0-Lime offers a job to Martins
- ◆ 0-Martins arrives to Viena
- ◆ 0-Martins goes to meet Lime
- ◆ 0-Karl appears
- ◆ 0-Martins meets Karl
- ◆ 0-Lime dies

Relation Act

- ◆ 0-Martins knows Karl
- ◆ 0-Karl knows Martins
- ◆ 0-Martins friend of Lime
- ◆ 0-Lime friend of Martins
- ◆ 0-Martins likes Karl

Unit test

Example of Act 0, Action and Incident

Act 0:

INSTANCE EDITOR

For Instance: ♦ 0 (instance of Act, internal name is the third man_Class7) [edit] [delete] [refresh]

Act Number: 3man Act [edit] [delete] [refresh]

Event Appears [edit] [delete] [refresh]

- ♦ 0-Lime offers a job to Martins
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Relation Act [edit] [delete] [refresh]

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Action:

INSTANCE EDITOR

For Instance: ♦ 1-Caloway appears (instance of Action, internal name is the third man_Class30018) [edit] [delete] [refresh]

Caused by [edit] [delete] [refresh]

- ♦ 1-Martins goes to funeral

Act: [edit] [delete] [refresh]

Description of Action: [edit] [delete] [refresh]

Cause [edit] [delete] [refresh]

- ♦ 1-Caloway follows Martins

Active: [edit] [delete] [refresh]

Results [edit] [delete] [refresh]

- ♦ 1-vienna
- ♦ 1-english
- ♦ 1-alive

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Example of Act 0, Action and Incident

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Active ⚡ ⚙ ⚡ ⚡: ♦ Caloway

Results ⚡ ⚙ ⚡ ⚡:

- ♦ 1-vienna
- ♦ 1-english
- ♦ 1-alive

Incident:

INSTANCE EDITOR

For Instance: ♦ 1- Martins receives a call (instance of Incident, internal name is the third man_Class400...) ✕ ⚙ ⚡

Act ⚡ ⚙ ⚡ ⚡: ♦ 1

Description of Incident:

Receiver ⚡ ⚙ ⚡ ⚡: ♦ Martins

Caused by ⚡ ⚙ ⚡ ⚡: ♦ 1-Martins goes to Military Hotel

Results ⚡ ⚙ ⚡ ⚡:

Causes ⚡ ⚙ ⚡ ⚡:

- ♦ 1-Kurtz appears
- ♦ 1-Martins meets with Kurtz

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Possible extentions

Further development

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- Model the knowledge representation within the communications, e.g., Karl tells Martins that Limes is instantly dead (in the act);

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- Model the location events, e.g., Martins goes to the Military Hotel;
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- Model the knowledge representation within the communications, e.g., Karl tells Martins that Limes is instantly dead (in the act);
- Model the activities of the people, e.g., Lime in act 0 is known to be a seller and further in the movie he gets characterized as racketier.

If you have any **questions** we would be pleased to try to give them an answer.

To be continued.. Thank you for the attention!

THE END !

