

WP3 – Triple Space Interaction

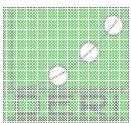
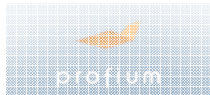
TripCom Kick Off Meeting

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Introduction

WP number	3		Start date or starting event:			M0
Activity type	RTD/Innovation activities					
Participant id	Telefonica	FUB	TUW	ONTO	Profium	UIBK
PM per participant	2	20	6	12	17	15

Objectives

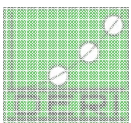
Definition of the interaction with the Triple Space

- standardization of triple insertion and retrieval
- compatibility with other RDF query approaches and their extensions
- semantic retrieval



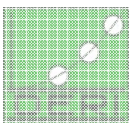
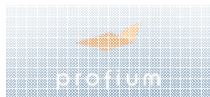
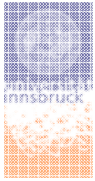
Representatives

FUB	Lyndon Nixon (WP leader)
UIBK	Reto Krummenacher
TUW	Martin Murth
Onto	Vassil Momchev
Profium	Janne Saarela
Telefonica	



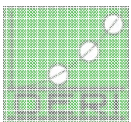
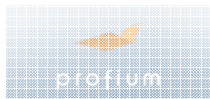
Task 3.1 Making Linda semantics-aware

- Linda operates on data
 - a simple co-ordination language with three operations: **in**, **rd** and **out**
- Re-define the meaning of these operations to handle **RDF(S)**, **OWL**, **WSML**, **rules** etc.
- Introduce new operations
- **Milestone M12**: Specification of semantic Linda (co-ordination model for a Triple Space)



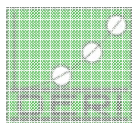
Task 3.2 Making matching semantics-aware

- Matching in Linda
 - equivalence of data types between corresponding fields
- Matching of RDF and other semantic models is **much more complex**
 - Need to determine **class and instance matches** (e.g. through subsumption or equivalence)
 - Need to match on **inferred** triples – triples that are not explicitly in the tuplespace



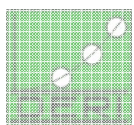
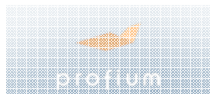
Task 3.2 (cont.)

- **First task:** extend Linda matching to **handle RDF** containing tuples
- **Next task:** extend this matching to handle **other expressive models (OWL, WSML...)**
 - Matching should be **distributed** like the data itself to resolve efficiency problems
- **Milestone M12:** Implementation of a semantic matching extension for tuplespace systems
- **Milestone M24:** Deliverable D3.3 „Semantic matching in distributed spaces“



Task 3.3 Making query languages interoperable with Triple Space

- Enable interaction with the Triple Space using emerging query languages for RDF, OWL, WSML...
- **Milestone M18:** D3.2 „State of the art in semantic query languages“
- **Milestone M30:** Implementation of a semantic query tool
- **Milestone M33:** D3.4 „Distributed semantic query tool for Triple Space“
- **Milestone M36:** Integration of tool into TripleSpace architecture



Deliverable overview

Del.	Title	Lead Partner	PMs	Nature	Diss.	Mo.
D3.1	Specification and Implementation of the semantic Linda model	FUB	28	R,P	PU	12
D3.2	State of the art of semantic query languages.	Profium	12	R	PU	12
D3.3	Semantic matching in distributed spaces.	UIBK	12	R	PU	24
D3.4	Distributed semantic query tool for Triple Space.	Profium	20	P	PU	33

