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TELOS architecture and function aggregation- illustrated by working prototypes - demo scenario

This "stereo-demonstration" is organized in to parallel (correlated) tracks (panels, presentation windows):
A The "illustrated aspect track" will signal, on the TELOS architecture map, the aspect explained by the current demonstration step
B The "exemplification track" will show the behavior of the prototype used as an illustrator tool.
We can demonstrate all the chain, step by step, choosing the minimum duration of every presentation. We can also present separately some steps, with more details, if the visiting public makes the request.

Track A: TELOS conceptual architecture

1 The aggregation: principles, actors and phases – the functional orchestration case

a The principle of functional aggregation (orchestration of objects and persons)
b The actors of the functional aggregation
c The phases of a functional aggregation life cycle

2 The aggregator: sources and parts –the function manager case

a The function aggregator parts: manager, editor, explorer, analyzer
b The function aggregator sources: objects, persons, processes, sub-aggregates
c Core modules that may be used before editing a function
- the knowledge manager
- the object manager, with competence declarations
- the person manager with competence declarations

3 The aggregate: types, parts, layers, stages, scales –the function case

a The function aggregate: orchestration of objects, persons and processes
b The function K, R , A , S , C parts
c The function layers : declarations, components, manipulators
d The function stages: class in construction, closed class, instance in preparation, activated instance, instance in execution , product analyze

4 Componentization of objects and services, preparing autonomous use and aggregations

a Services componentization : some exercises (ADISA server, Edusource , MOT-VAL- Explora cooperation etc.); the need for a kernel management and coordination of the service interfaces

b Object componentization and distributed registry, secondary resources (prepared for aggregation); object controller in the ION experience

5 The main TELOS aggregation cascade: core-LKMS-LKMA-LKMP

a Composing of LKMS with core
b Composing LKMA with LKMS

c Composing LKMP with LKMA

Track B: Demonstration chain

1 Using knowledge editors (VAL prototype) to compose knowledge references

Duration: 2-10 minutes
Illustrates: 2c (K)
Description:
(- editing a conceptual graph with MOT and exporting it in XML, for being used as a semantic referential)
(knowledge evolution management in ADISA)
- editing a conceptual graph with VAL or importing it from MOT XML; making new versions of the referential)
(- organizing knowledge as a thesaurus with tree parts : domain, technical and administrative)

2 Using objects managers (ION prototype) to declare and to prepare object components, to index the intended competence and to compose object aggregations (collections, systems, flowcharts)

Duration: 2-20 min
Illustrates: 2c (R), 4b
Description:
(- Defining an abstract secondary resource class)
(- Constructing a secondary (prepared) resource instance and allocating it to a class)
(- Defining a textual batch or a flowchart on a secondary resource)
(document manager versus application managers)
- Characterizing a resource, and signaling the competence of the intended users
(- Publishing the resource on the central server)
(- Downloading the resource or one resource interface on a client administrator, installing, testing, explaining and demonstrating it)
(- Obtaining a resource on the fly, solving dependences and using it)
(- aggregating a prepared resource)

3 Using person managers (VAL prototype) to declare and to prepare person components, to index the intended competence and to compose person aggregations (groups, teams)

Duration: 2- 10 min
Illustrates: 2c (R)
Description:
(- declaring a new participant and defining his characteristics)
- declaring a set of competences for a participant
(- composing person aggregates (collections by enumeration and proprieties, teams with roles etc.)

4 Using the function manager (GEFO prototype) to declare a function in preparation and to set the working mode and roles

Duration: 1-5 min
Illustrates: 1c(preparation phase), 2a (administrator), 3d
Description:
- declaring a new function

- opening the edition and fixing the edition modes and rights

5 Editing the operation chain and the operations internal topologies; indexing the competence attached to an operation

Duration: 2-10 min
Illustrates:1c (edition phase), 3b (A part), 3d (class in construction)
Description:
- editing the operation chain : nodes, links
(- sub-graphs and cooperative editing)
- editing an operation topology (procedure, actor, resources)
(-including an operation from a library and saving operations)
(- editing operation parameters and declaring propagations)
- editing the competences involved by an operation

6 Editing the actor (participant) part, setting actor competences and actor concretizations (persons, person aggregates)

Duration:2-10 min
Illustrates: 1b, 2b, 3b (R part)
Description:
(- editing actor type (learner, assistant) and parameters)
- editing actor competence if different from the default (operation competence)
(- concretizing actors with persons or person aggregates)

7 Editing the instruments (objects) part, setting instrument users competences and instrument concretizations (objects, object aggregates)

Duration: 2-5 min
Illustrates: 2b, 3b (R part), 3c (R manipulators)
Description:
(- editing instruments type (input, support, output) and parameters)
- editing user competence shift if different from default
(- concretizing instruments with objects or object aggregates)

8 Editing the support layer, using the observation of the advancement (traces: declarations, interceptions) and the data about knowledge and competences

Duration: 2-10 min
Illustrates: 3b (S part)
Description:
- editing support for some elementary or composed operations , active in the moment of the accomplishment (declared or intercepted)
(- editing support ad demand depending on the chain realization)
(- editing questions and reactions to answers)
- editing support depending of the competence equilibrium
(- preparing and external support)

9 Editing the control part, preparing some automatic object behavior and the floor control for cooperative exploration

Duration: 2-10 min
Illustrates: 1a, 3b (C part)
Description:
(- preparing automatic manipulation of some resources)
- preparing the actor access policy for the exploration
(- defining the floor control protocol in the case of cooperative exploration)

10 Special edition case: the use of a meta-function piloting the edition process)

Duration: 5-15 min
Illustrates:1c
Description:
(- Composing a meta-function by interception combined with manual edition)
- preparing, editing, administrating, exploring and analyzing a function, piloted by a meta-function

11 Special edition case: obtaining a function by emergent resource use observation continued by a manual edition)

Duration: 3-10 min
Illustrates:1c
Description:
- beginning the function edition
- Launching the interception of the manipulations on some resource
(- Launching the interception on another resource)
- continuing the manual edition to eliminate the instance details

12 Closing the editing phase and setting the instance administrating roles and mode

Duration:1-3 min
Illustrates:1c, 3d
Description:
- Declaring the administration and exploration modes and rights and protocols
- closing the edition and publishing a class function

13 Making administrative operations (parameterization, competence declarations, resources concretization), preparing an active function instance; setting the execution mode and activating the execution

Duration: 2-10 min
Illustrates:1c, 2a (administration phase), 3d
Description:
- Choosing a class function and making a new instance
- setting instance parameters (competence, rights) and concretizations (actors and instruments)
- setting the execution mode and activating the execution

14 Exploring the function: navigating and reading information, declaring the advancement, obtaining support, manipulating resources, cooperating with instance partners (using the control rules)

Duration: 5-20 min
Illustrates: 1a, c 2a, (exploration phase), 3a, 3b, 3c
Description: - navigating and reading information
- declaring the advancement, concretizing and annotating
- manipulating resources and producing traces
(- obtaining support)
(- cooperating with instance partners - using the control rules)

15 Exploring the function: the competence dynamic equilibrium management

Duration: 2-15 min
Illustrates: 1a, 3a
Description:
- Recommending and classifying, concretizations on competence criteria
- Filtering or orientating the access on competence criteria
- Analyzing manually or automatically the competence equilibrium and making active matching acts
- updating the user competences

16 Analyzing exploration results

Duration: 2-5 min
Illustrates: 1c, 2a (analyze phase), 3d
Description:
- observing instance results with de exploration viewer
(- other instance or class results analyzers)

17 Composing a meta-function and a meta-meta-function by intercepted demonstration and manual edition

Duration: 2-5 min
Illustrates: 5
Description:
- composing a meta-function by manual but intercepted edition, generating a meta-meta-function

18 Organizing a core-LKMS-LKMA-LKSP chain with functions and meta-functions

Duration: 2-5 min
Illustrates: 5
Description:
- using the meta-meta-function as a core tool producing a meta-function type LKMS
- using the meta-function LKMS to produce a function LKMA
- using the function LKMA to produce LKSP data

19 Generating an ADISAx workshop (fusion aggregation) with GADISA2

Duration: 2-10 min
Illustrates: 5a
Description:

- choosing the workshop modules
- declaring the connectors
- personalizing every module

20 Declaring and adapting a new ADISAx(n) project

Duration: 2-10 min
Illustrates: 5b
Description:
- Opening a ADISAx workshop
- parametrising the new projects
- Generating a new project

21 Editing the ADISAx(n), project as a declaration for a EXPLORA LKMA composition

Duration: 2-5 min
Illustrates: 5c
Description:
- editing templates
- editing activity graphs (functions)

22 Obtaining an autonomous service for the ADISA server)

Duration: 2-5 min
Illustrates: 4a
Description:
- obtaining the list of documents from the ADISA server
(- combining Adisa modules)

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Ioan Rosca , Val Rosca 7 november 2004