



ADMIRE Registry

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- Introduction to ADMIRE
- The ADMIRE Registry – What is it?
- The ADMIRE Registry – How it works?
- The ADMIRE Registry – Who uses it?
- Future work

- **Introduction to ADMIRE**
- The ADMIRE Registry – What is it?
- The ADMIRE Registry – How it works?
- The ADMIRE Registry – Who uses it?
- Future work

- ADMIRE – Advanced Data Mining and Integration Research for Europe
- 7th Framework Program
- Commenced in February 2008 over 36 months.
- €4.3 million in costs, and €3 million in EC funding

- University of Edinburgh, UK (Coordinator)
 - NeSC - National e-Science Centre
 - EPCC - Edinburgh Parallel Computing Centre
- Fujitsu Labs of Europe, UK
- University of Vienna, Austria
 - Institute of Scientific Computing
- Universidad Politécnica de Madrid, Spain
 - Ontology Engineering Group
- Slovak Academy of Sciences, Slovakia
 - Institute of Informatics
- ComArch S.A., Poland

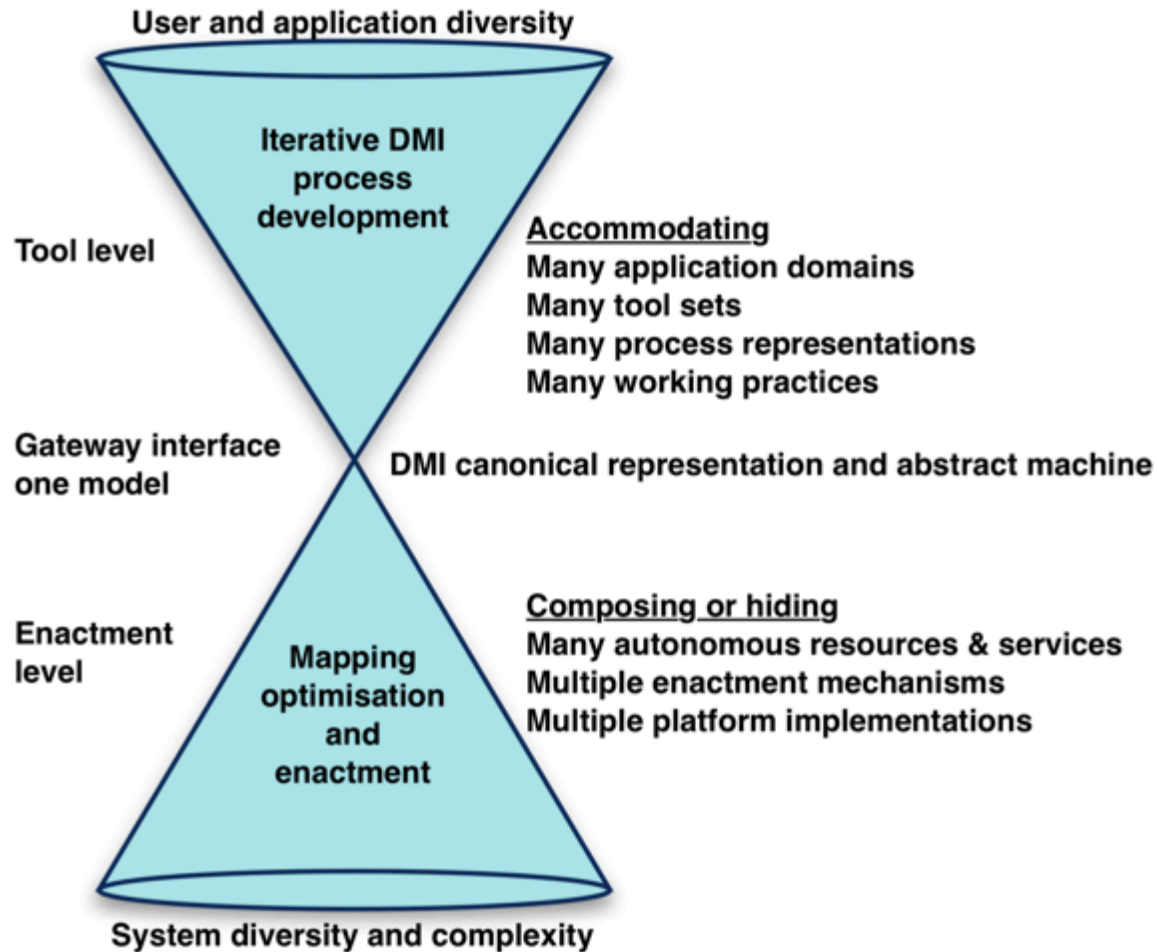
- Benefits

- Provide power to users and developers of data mining and integration processes over large scale-out of heterogeneous, distributed data
- Accelerate access to and increase the benefits from data exploitation

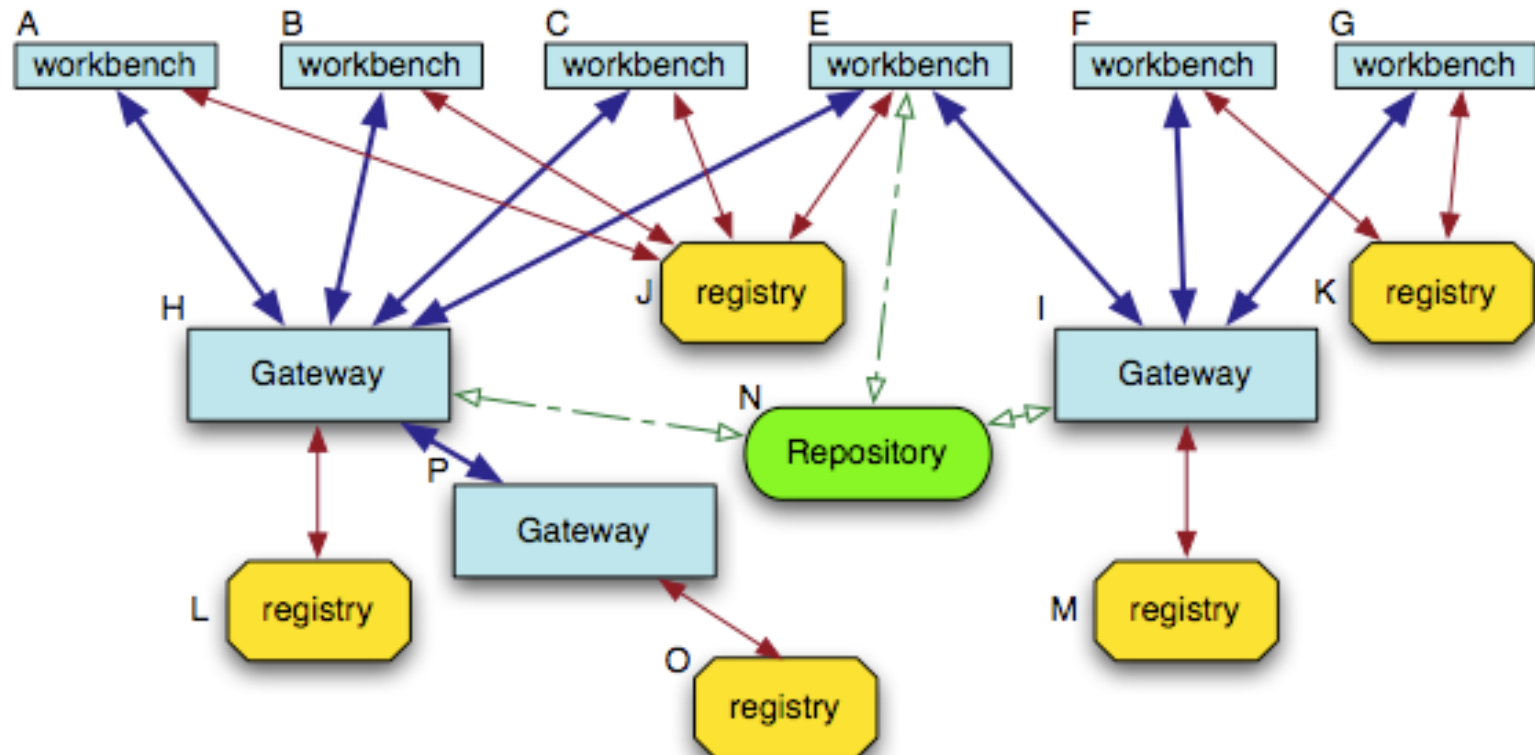
- Strategy

- recast a selection of existing analysis and mining algorithms to enable them to take best advantage of its distributed-computing framework
- employ a parallel processing pipeline approach for data-streaming style process to speed up data process enormously

Introduction to ADMIRE - Architecture



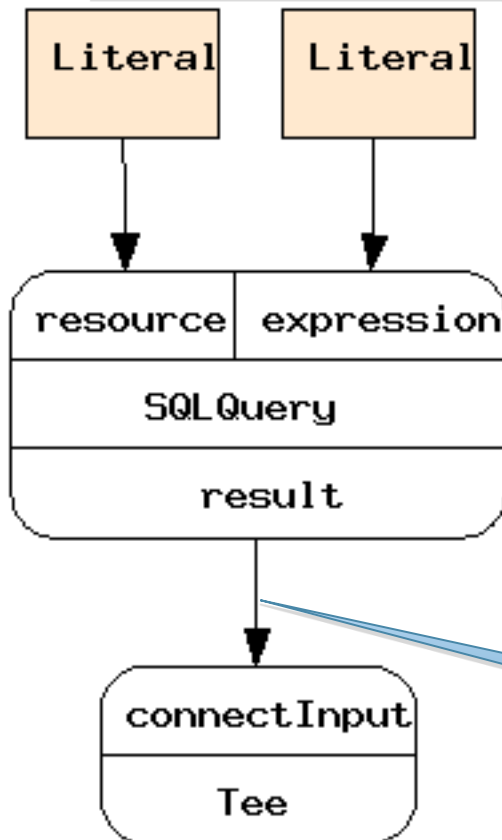
Introduction to ADMIRE - ADMIRE Framework



- Data-intensive distributed systems
- Connection point of complex application requests and complex enactment systems
 - Benefit: method development, engineering and evolution of supported practices can take place independently in each world
- Describes enactment requests for streaming-data workflows processes
- “Process-engineering time” – transform and optimize process in preparation for enactment period

DISPEL: Simple Example

Creating streams of literals



```
String sql1 = "SELECT * FROM some_table";  
String sql2 = "SELECT * FROM table2";  
String resource = "128.18.128.255";
```

```
SQLQuery query = new SQLQuery;  
|- sql1, sql2 -| => query.expression;  
|- resource -| => query.resource;
```

```
Tee tee = new Tee;  
query.result => tee.connectInput;
```

Creating connections

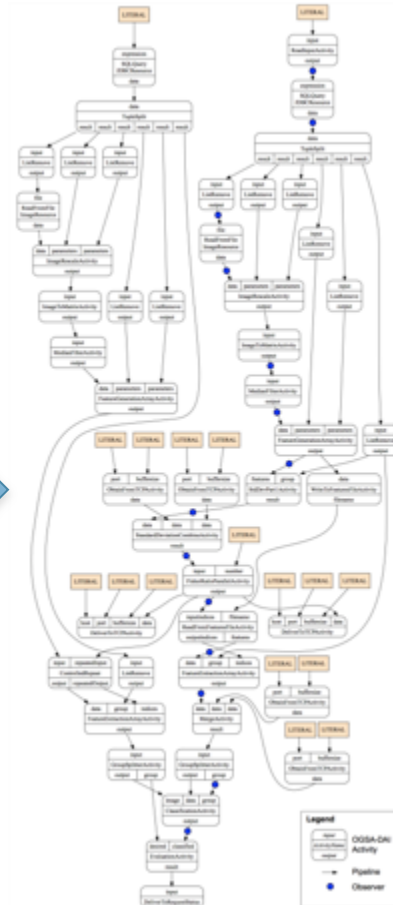
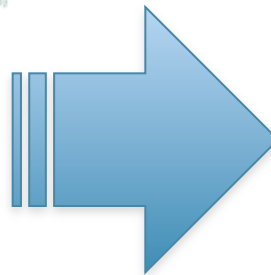
DISPEL – real use

```

// ***** TRAINING *****
// Select train Classification
gplittC.output => gplittC.group =>
// Evaluate the
EvaluatC.output => gplittC.group =>
classifier.output
return PE(<> =>
// Define input data
String expression =
"J", case when endr
limit 800";
PE(<> => <Connection
Eurepress q = new
// Display result
Results result = new
// "results" -> result
q.result => result
submit q;

// ***** TRAINING *****
// Generates training data
// and tests classifier
// It then returns the
function Eurepress(String
{
// ***** TRAINING *****
// Select training data
SQLQuery query = new
// "JDBResource" ->
// word -> query;
// Split dataset = new
Split splitDataset =
query.data => split
// Generate training
PE(<Connection data =>
GenFeatures genTrain
splitDataset.output[0]
// GenFeatures takes input data (tuple from SQL query),
// and outputs generated features and group of the images
function GenFeatures(String imageResource)
PE(<Connection data => <Connection features , group>
// Split the tuple (Filename, width, height, level, dbname, group)
TupleSplit tupleSplit = new TupleSplit;
// Remove list : from (Filename) to (Filename)
ListRemove nameList = new ListRemove;
tupleSplit.result[0] => nameList.input;
ListRemove widthList = new ListRemove;
tupleSplit.result[1] => widthList.input;
ListRemove heightList = new ListRemove;
tupleSplit.result[2] => heightList.input;
ListRemove levelList = new ListRemove;
tupleSplit.result[3] => levelList.input;
ListRemove dbnameList = new ListRemove;
tupleSplit.result[4] => dbnameList.input;
ListRemove groupList = new ListRemove;
tupleSplit.result[5] => groupList.input;
// Read image from file resource = PE3
ReadFromFile reader = new ReadFromFile;
nameList.output => reader.file;
// ImageResource -> reader.resource;
// Rescale the image according to pre-assigned width and height = PE4
ImageRescaleActivity scale = new ImageRescaleActivity;
reader.data => scale.data;
widthList.output => scale.parameters[0]; //width
heightList.output => scale.parameters[1]; //height
// Convert scaled image from BufferedImage object to matrix (double[])
ImageToMatrixActivity imgToMatrix = new ImageToMatrixActivity;
scale.output => imgToMatrix.input;
// ***** TESTING *****
// Filter images noise = PE5
MedianFilterActivity filter = new MedianFilterActivity;
imgToMatrix.output => filter.input;
// Generate features according to pre-defined level and dbname = PE6
FeatureGenerationArrayActivity fg = new FeatureGenerationArrayActivity;
filter.output => fg.data;
levelList.output => fg.parameters[0];
dbnameList.output => fg.parameters[1];
return PE(<Connection data => tupleSplit.data => <Connection features=fg.output ; Connection
group=groupList.output>);
// ***** TESTING *****
// Extract features
FeatureExtractionArray
repeater.output => fg
repeater.repeatedOut
teeGroup.output[1] =>
GroupSplitterActivity
fg.output => gplittC
// ***** TESTING *****
// Generate testing
GenFeatures genTest
splitDataset.output[1]
ControlledRepeat repe
genTestingData.feature
teeIndices.output[1]
// Extract features
FeatureExtractionArray
repeaterC.output =>
repeaterC.repeatedOut
group=groupList.output
genTestingData.group
GroupSplitterActivity gplittC = new GroupSplitterActivity;
fgC.output => gplittC.input;

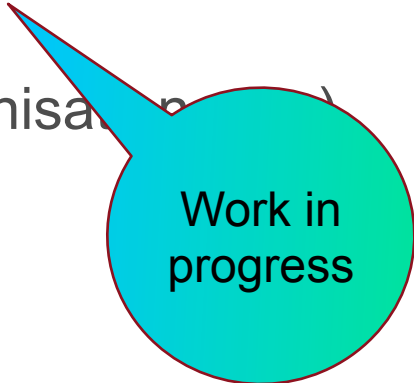
```



- Introduction to ADMIRE
- **The ADMIRE Registry – What is it?**
- The ADMIRE Registry – How it works?
- The ADMIRE Registry – Who uses it?
- Future work

ADMIRE registry – What is it?

- The ADMIRE registry is in charge of registering Processing Element descriptions
- In the registry the description of a PE contains:
 - A unique name
 - A short definition of what they do
 - A precise description of their input and output streams
 - a structure of **Connections**
 - The (S&D)type propagation rules from inputs to outputs
 - A precise description of their properties that may permit or limit optimisation
 - Their known subtype hierarchy
 - Information about the PEs (author, organisation, ...)



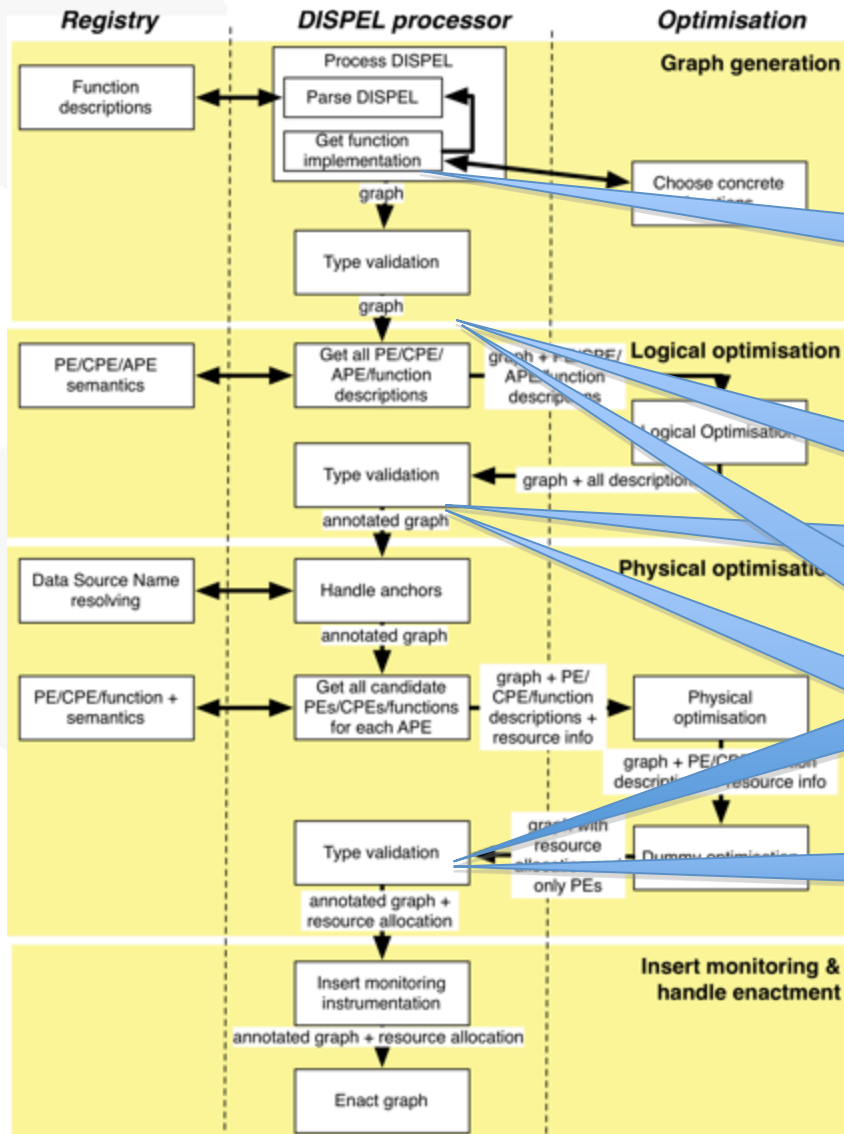
Work in progress

- Descriptions of PEs are stored in RDF (we are talking about data)
- The RDF graph reflects all the PE structure (in DISPEL)
 - Connections
 - STypes
 - DTypes
 - Annotation properties
 - Author
 - Description
 - Organisation
 - Version
 - Some modifiers
 - Propagation Rules are stored implicitly in the data model (see next slide)

The ADMIRE registry - A network of Ontologies

- For describing the data we use a network of ontologies (we are talking about the model)
- Data Mining Ontology (CRISP-DMI and DataMining)
 - It defines the vocabulary related to DMI, allowing end-users to understand the semantics of DMI process components.
- Platform and Operational Ontology (the conceptual level and the instances)
 - They define the terminology needed for describing processing elements of the platform (technology-independent, generic services, datasets, etc.).
- Domain Ontologies
 - They define the vocabulary and relations in the domain use cases

The ADMIRE registry - Language Processing



Language
Type Focus

Data
Mining
Ontology

Platform
Ontology

Structural
Type Focus

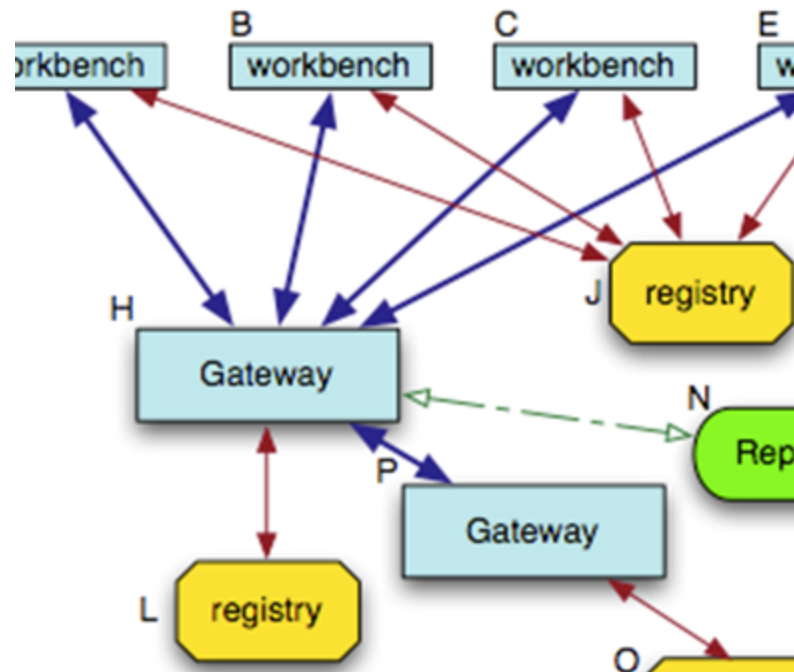
Domain Type
Focus

Domain
Ontologies

The ADMIRE Registry – An example

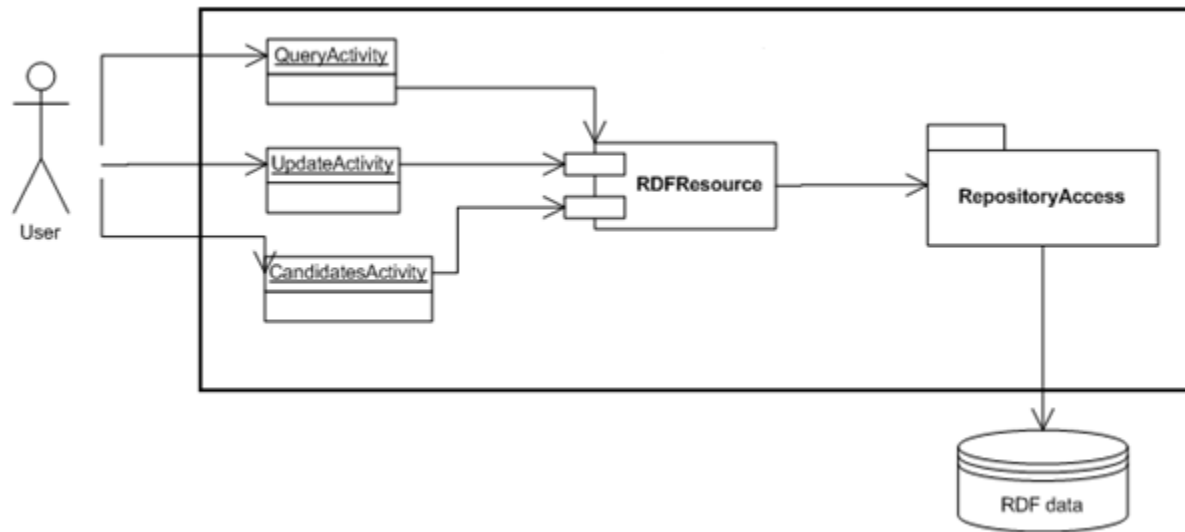
- Data
- Ontology

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ADMIRE Registry – How it works

- RDFResource: OGSA-DAI data resource with activities for PE query and update

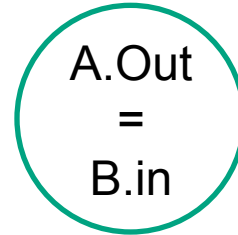


```
ProcessingElementDescriptor lookupProcessingElement(String name);
List<ProcessingElementDescriptor> lookupProcessingElementList();
List<String> lookupProcessingElementsName();
void registerProcessingElement(
    ProcessingElementDescriptor descriptor,
    String implementation)
    throws ProcessingElementAlreadyExistsException,
           RegistrationFailedException;
```

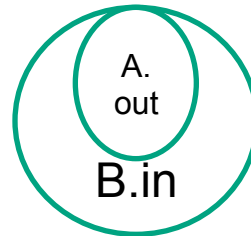

- Interfaces for
 - Registering and querying PEs:
 - Registering and querying STypes and DTypes
 - Registering and querying functions
 - Registering and querying annotations (author, etc.)
 - Registering and querying generic elements
 - Inference over the domain ontologies (Type checking)

- Basically an OGSA-DAI activity for updating the RDF database
- And a set of SPARQL queries to query the data
- Plus a connection to a Description Logic reasoner for type checking

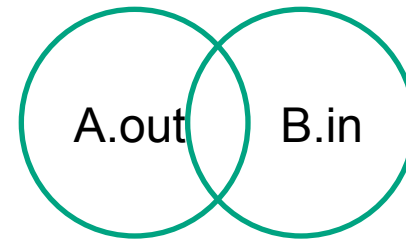
- a) $A.out = B.in$



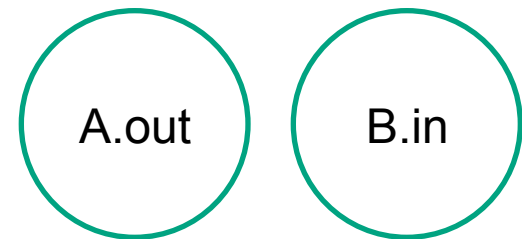
- b) $A.out \text{ in } B.in$

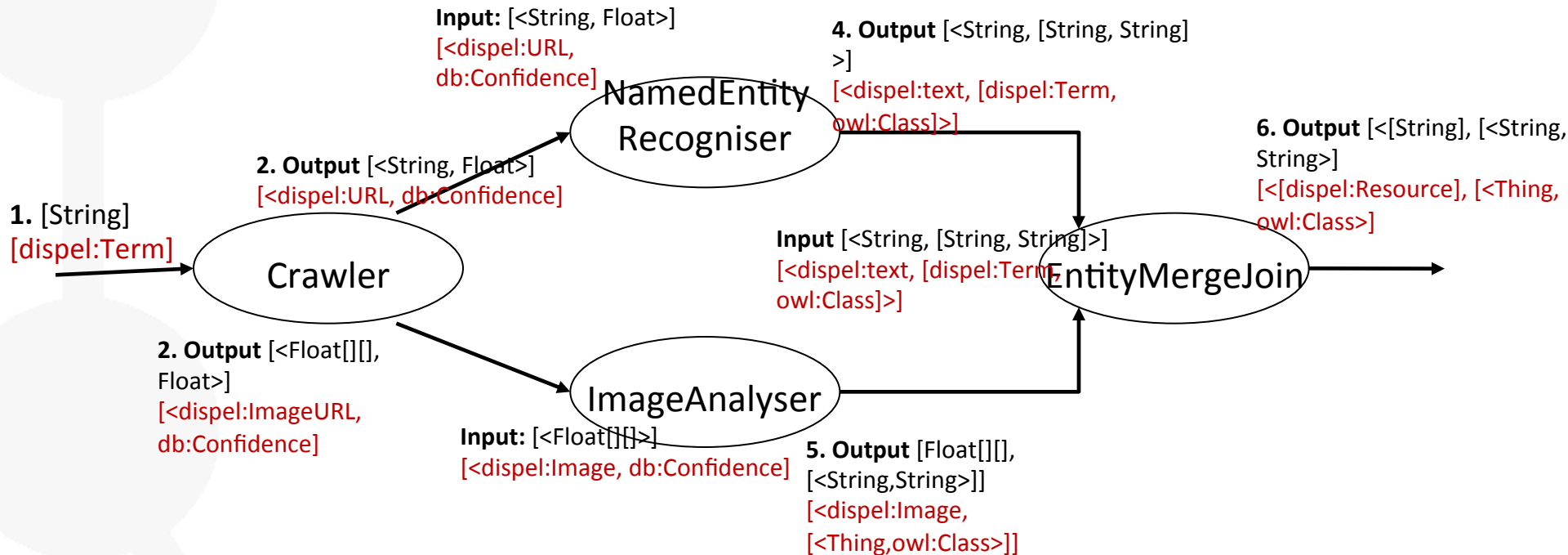


- c) $A.out$ not disjoint with $B.in$



- d) $A.out$ disjoint with $B.in$





1. Input: [US, politics, Obama]
2. Output: [<http://data.gob/term1.html, 0,96>, ...]
3. Output: [<http://images.google.com/img1.jpg, 0,97>, ...]
4. Output: [<http://data.gov/obama.html, [<Obama, person>, <white house, Organisation>, ...]>]
5. Output: [<http://images.google.com/obama1.jpg, [<obama, Person>, <WhiteHouse, Organisation>]>]
6. Output: [<http://data.gov/obama, http://images.google.com/obama1.jpg>],[<dbpedia:obama, dbpedia:Person>, <dbpedia:WhiteHouse, dbpedia:Organisation>]

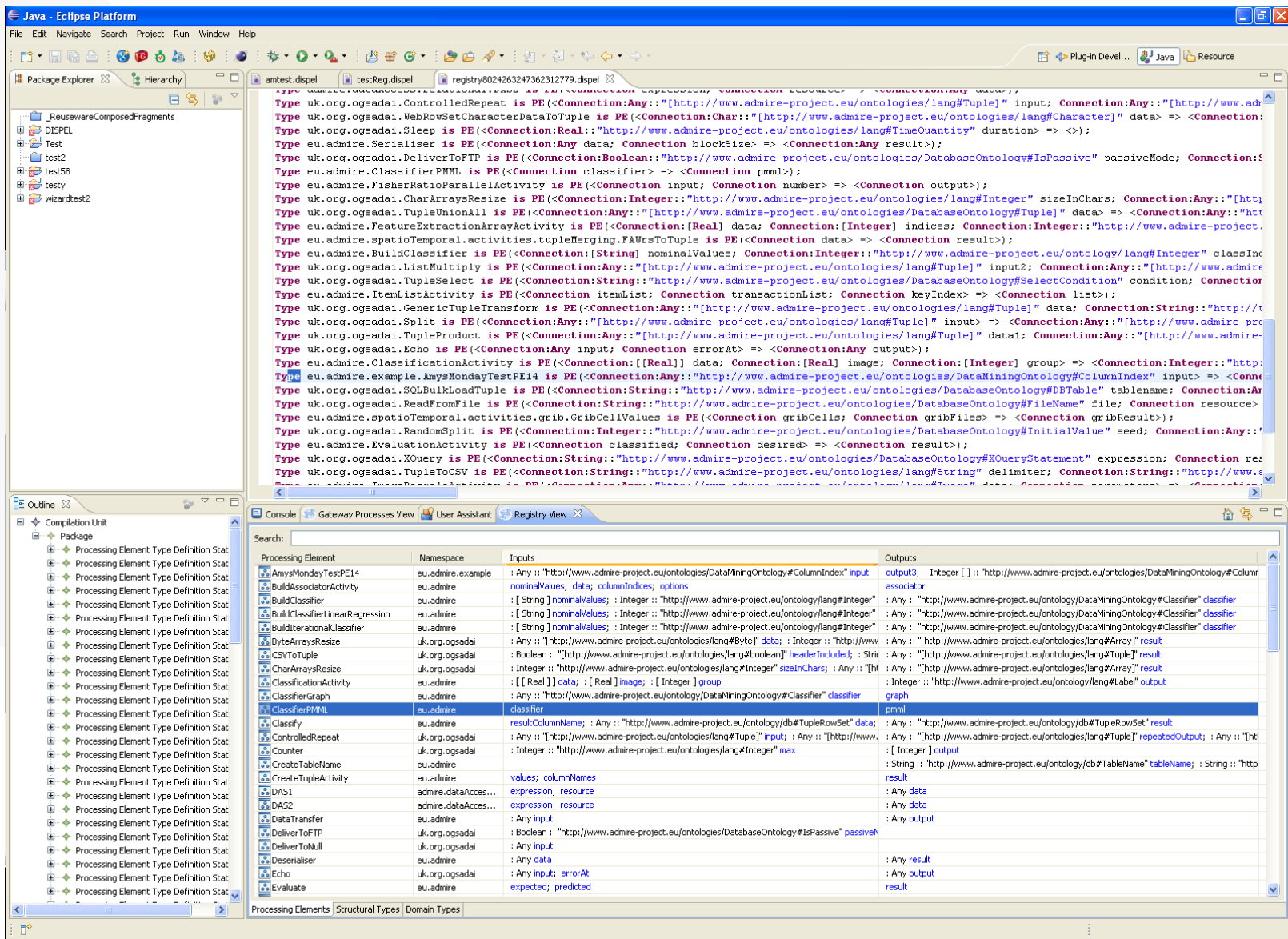
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- The ADMIRE gateway
 - The ADMIRE gateway receives the DISPEL code and is in charge of compiling and executing it
 - In compile time the ADMIRE gateway contacts the registry importing all PEs used in that DISPEL code
 - The gateway checks
 - SType compatibility
 - DType compatibility checking and propagation
 - The Gateway submits the DISPEL code

The ADMIRE Registry – Who uses it?

- The process designer
 - It is the user interface of ADMIRE
 - Graphical interface for designing DMI processes
 - Registry view:
 - Lists the PEs available with all their information

The ADMIRE Registry – Who uses it?



The screenshot displays the Eclipse IDE interface, showing the ADMIRE Registry. The top editor displays a list of processing elements (PEs) with their namespaces and inputs/outputs. The bottom editor shows a detailed view of the 'AmysMondayTestPE14' processing element, including its namespace, inputs, and outputs.

Processing Element Details:

Processing Element	Namespace	Inputs	Outputs
AmysMondayTestPE14	eu.admire.example	: Any :: "http://www.admire-project.eu/ontologies/DataMiningOntology#ColumnIndex" input	output3; : Integer [] :: "http://www.admire-project.eu/ontologies/DataMiningOntology#ColumnIndex"
BuildAssociatorActivity	eu.admire	nominalValues; data; columnIndices; options	associator
BuildClassifier	eu.admire	: [String] nominalValues; : Integer :: "http://www.admire-project.eu/ontology/lang#Integer"	: Any :: "http://www.admire-project.eu/ontology/DataMiningOntology#Classifier" classifier
BuildClassifierLinearRegression	eu.admire	: [String] nominalValues; : Integer :: "http://www.admire-project.eu/ontology/lang#Integer"	: Any :: "http://www.admire-project.eu/ontology/DataMiningOntology#Classifier" classifier
BuildIterationalClassifier	eu.admire	: [String] nominalValues; : Integer :: "http://www.admire-project.eu/ontology/lang#Integer"	: Any :: "http://www.admire-project.eu/ontology/DataMiningOntology#Classifier" classifier
ByteArraysResize	uk.org.ogsadai	: Any :: "http://www.admire-project.eu/ontologies/lang#Byte" data; : Integer :: "http://www.admire-project.eu/ontologies/lang#Integer"	: Any :: "http://www.admire-project.eu/ontologies/lang#Array" result
CSVToTuple	uk.org.ogsadai	: Any :: "http://www.admire-project.eu/ontologies/lang#Boolean" headerIncluded; : String	: Any :: "http://www.admire-project.eu/ontologies/lang#Array" result
CharArraysResize	uk.org.ogsadai	: Integer :: "http://www.admire-project.eu/ontologies/lang#Integer" sizeInChars; : Any :: "http://www.admire-project.eu/ontologies/lang#Array" result	: Any :: "http://www.admire-project.eu/ontologies/lang#Array" result
ClassificationActivity	eu.admire	: [[Real]] data; : [Real] image; : Integer group	: Integer :: "http://www.admire-project.eu/ontology/lang#Label" output
ClassifierGraph	eu.admire	: Any :: "http://www.admire-project.eu/ontology/DataMiningOntology#Classifier" classifier	graph
ClassifierPMML	eu.admire	classifier	pmml
Classify	eu.admire	resultColumnName; : Any :: "http://www.admire-project.eu/ontology/db#TupleRowSet" data	: Any :: "http://www.admire-project.eu/ontology/db#TupleRowSet" result
ControlledRepeat	uk.org.ogsadai	: Any :: "http://www.admire-project.eu/ontologies/lang#Tuple" input; : Any :: "http://www.admire-project.eu/ontologies/lang#Tuple" repeatedOutput; : Any :: "http://www.admire-project.eu/ontologies/lang#Integer" max	: [Integer] output
Counter	uk.org.ogsadai	: Integer :: "http://www.admire-project.eu/ontologies/lang#Integer" max	: String :: "http://www.admire-project.eu/ontology/db#TableName" tableName; : String :: "http://www.admire-project.eu/ontology/db#TableName" tableName
CreateTableName	eu.admire	values; columnNames	result
CreateTupleActivity	eu.admire	expression; resource	: Any data
DAS1	admire.dataAccess...	expression; resource	: Any data
DAS2	admire.dataAccess...	expression; resource	: Any output
DataTransfer	eu.admire	: Any input	: Any output
DeliverToFTP	uk.org.ogsadai	: Boolean :: "http://www.admire-project.eu/ontologies/DatabaseOntology#IsPassive" passive	
DeliverToNull	uk.org.ogsadai	: Any input	
Deserialiser	eu.admire	: Any data	: Any result
Echo	uk.org.ogsadai	: Any input; errorAt	: Any output
Evaluate	eu.admire	expected; predicted	result

The ADMIRE Registry – Who uses it?

Processing Element	Namespace	Inputs	Outputs
AmysMondayTestPE14	eu.admire.example	: Any :: "http://www.admire-project.eu/ontologies/DataMiningOntology#ColumnIndex" input	output3; : Integer [] :: "http://www.admire-project.eu/ontologies/DataMiningOntology#ColumnIndex2" output2; : Real output1
BuildAssociatorActivity	eu.admire	nominalValues; data; columnIndices; options	associator
BuildClassifier	eu.admire	: [String] nominalValues; : Integer :: "http://www.admire-project.eu/ontology/lang#Integer" classIndex	: Any :: "http://www.admire-project.eu/ontology/DataMiningOntology#Classifier" classifier
BuildClassifierLinearRegression	eu.admire	: [String] nominalValues; : Integer :: "http://www.admire-project.eu/ontology/lang#Integer" classIndex	: Any :: "http://www.admire-project.eu/ontology/DataMiningOntology#Classifier" classifier
BuildIterationalClassifier	eu.admire	: [String] nominalValues; : Integer :: "http://www.admire-project.eu/ontology/lang#Integer" classIndex	outputFrequency; : Any :: "http://www.admire-project.eu/ontology/db#TupleRowSet" data; algorithmClass; : [Any] options; : [String] columnInd
ByteArraysResize	uk.org.ogsadai	: Any :: "http://www.admire-project.eu/ontologies/lang#Byte" data; : Integer :: "http://www.admire-p	: Any :: "http://www.admire-project.eu/ontologies/lang#Array" result
CSVToTuple	uk.org.ogsadai	: Boolean :: "http://www.admire-project.eu/ontologies/lang#Boolean" headerIncluded; : String :: "http	: Any :: "http://www.admire-project.eu/ontologies/lang#Tuple" result
CharArraysResize	uk.org.ogsadai	: Integer :: "http://www.admire-project.eu/ontologies/lang#Integer" sizeInChars; : Any :: "http://www	: Any :: "http://www.admire-project.eu/ontologies/lang#Array" result
ClassificationActivity	eu.admire	: [[Real]] data; : [Real] image; : [Integer] group	: Integer :: "http://www.admire-project.eu/ontology/lang#Label" output
ClassifierGraph	eu.admire	: Any :: "http://www.admire-project.eu/ontology/DataMiningOntology#Classifier" classifier	graph
ClassifierPMMI	eu.admire	classifier	pmmi
Classify	eu.admire	resultColumnName; : Any :: "http://www.admire-project.eu/ontology/db#TupleRowSet" data; : Any :: "I	: Any :: "http://www.admire-project.eu/ontology/db#TupleRowSet" result
ControlledRepeat	uk.org.ogsadai	: Any :: "http://www.admire-project.eu/ontologies/lang#Tuple" input; : Any :: "http://www.admire-pr	: Any :: "http://www.admire-project.eu/ontologies/lang#Tuple" repeatedOutput; : Any :: "http://www.admire-project.eu/ontologies/lang
Counter	uk.org.ogsadai	: Integer :: "http://www.admire-project.eu/ontologies/lang#Integer" max	: [Integer] output
CreateTableName	eu.admire	values; columnNames	: String :: "http://www.admire-project.eu/ontology/db#TableName" tableName; : String :: "http://www.admire-project.eu/ontology/db#5
CreateTupleActivity	eu.admire	expression; resource	result
DAS1	admire.dataAcces...	expression; resource	: Any data
DAS2	admire.dataAcces...	expression; resource	: Any data
DataTransfer	eu.admire	: Any input	: Any output
DeliverToFTP	uk.org.ogsadai	: Boolean :: "http://www.admire-project.eu/ontologies/DatabaseOntology#IsPassive" passiveMode; : St	
DeliverToNull	uk.org.ogsadai	: Any input	
Deserialiser	eu.admire	: Any data	: Any result
Echo	uk.org.ogsadai	: Any input; errorAt	: Any output
Evaluate	eu.admire	expected; predicted	result
EvaluationActivity	eu.admire	classified; desired	result
ExpressionBuilder	eu.admire	dblevel; limit; filepath; height; width; dname; featurename	expression
ExternalInput	eu.admire	gateway; resultName	output
ExternalOutput	eu.admire	input; gateway; resultName	
FAWrtsToTuple	eu.admire.spatioT...	data	result
FeatureExtractionArrayActivity	eu.admire	: [Real] data; : [Integer] indices; : Integer :: "http://www.admire-project.eu/ontology/lang#Label" gn	: [Real] output
FeatureGenerationArrayActivity	eu.admire	: [[Real]] data; : < Integer level; String function > parameters	: [Real] output
FisherRatioParallelActivity	eu.admire	input; number	output
GenericScript	uk.org.ogsadai	: String :: "http://www.admire-project.eu/ontologies/lang#ScriptingLanguage" language; : String :: "http	
GenericTupleJoin	uk.org.ogsadai	: Any data1; : Any data2; : String :: "http://www.admire-project.eu/ontologies/lang#ScriptingLanguage"	: Any :: "http://www.admire-project.eu/ontologies/lang#Tuple" result
GenericTupleTransform	uk.org.ogsadai	: Any :: "http://www.admire-project.eu/ontologies/lang#Tuple" data; : String :: "http://www.admire-pr	: Any :: "http://www.admire-project.eu/ontologies/lang#Tuple" result
GetFileNames	eu.admire.spatioT...	start; end; step	output
GribCellValues	eu.admire.spatioT...	gribCells; gribFiles	gribResult
GroupBy	uk.org.ogsadai	: String :: "http://www.admire-project.eu/ontologies/DatabaseOntology#ColumnName" resultColumnName	: Any :: "http://www.admire-project.eu/ontologies/lang#Tuple" result
GroupSplitterActivity	eu.admire	input	output
HashCode	uk.org.ogsadai	: Any input	: String :: "http://www.admire-project.eu/ontologies/lang#HashCode" output
ImageRescaleActivity	eu.admire	: Any :: "http://www.admire-project.eu/ontology/lang#Image" data; parameters	: Any :: "http://www.admire-project.eu/ontology/lang#Image" output
ImageToMatrixActivity	eu.admire	: Any :: "http://www.admire-project.eu/ontology/lang#Image" input	: Any :: "http://www.admire-project.eu/ontology/lang#Image" output
ItemListActivity	eu.admire	itemList; transactionList; keyIndex	list
ListControlledRepeat	uk.org.ogsadai	: Any :: "http://www.admire-project.eu/ontologies/lang#Tuple" input; : Integer :: "http://www.admire-	: Any :: "http://www.admire-project.eu/ontologies/lang#Tuple" repeatedOutput; : Any :: "http://www.admire-project.eu/ontologies/lang
ListMultiply	uk.org.ogsadai	: Any :: "http://www.admire-project.eu/ontologies/lang#Tuple" input2; : Any :: "http://www.admire-pi	: Any :: "http://www.admire-project.eu/ontologies/lang#Tuple" output2; : Any :: "http://www.admire-project.eu/ontologies/lang#Tupk
ListRandomSplit	uk.org.ogsadai	: Integer :: "http://www.admire-project.eu/ontologies/lang#InitialValue" seed; : Integer :: "http://www.i	: Any :: "http://www.admire-project.eu/ontologies/lang#Tuple" data
ListRemove	uk.org.ogsadai	: Any :: "http://www.admire-project.eu/ontologies/lang#Tuple" input; : Integer :: "http://www.admire-	output
MedianFilterActivity	eu.admire	: [[Integer]] input	: [[Integer]] output
MultiClassify	eu.admire	: [Integer] priorities; : Any :: "http://www.admire-project.eu/ontology/db#TupleRowSet" data; : [Any	: Any :: "http://www.admire-project.eu/ontology/db#TupleRowSet" result
ObtainFromFTP	uk.org.ogsadai	: Boolean :: "http://www.admire-project.eu/ontologies/DatabaseOntology#IsPassive" passiveMode; : St	: Any :: "http://www.admire-project.eu/ontologies/DatabaseOntology#Filename" data
OrderedTuplesMerge	eu.admire.spatioT...	tuple2; tuple1; tuple2pos; tuple1pos	result
RandomNumbers	eu.admire	expression; createResult; min; max; tableName; seed; size	expression; numbers; insertExpression
RandomSplit	uk.org.ogsadai	: Integer :: "http://www.admire-project.eu/ontologies/DatabaseOntology#InitialValue" seed; : Any :: "Th	: Any :: "http://www.admire-project.eu/ontologies/lang#Tuple" data
ReadData	eu.admire.spatioT...	files; lon; lat	output
ReadFromDataSink	uk.org.ogsadai	resource	: Any :: "http://www.admire-project.eu/ontologies/lang#Tuple" output

Who uses the registry? - ADMIRE myExperiment

- Collaborative portal for ADMIRE
- Users can create their PEs, store them in the registry and share them within the community
- myExperiment based
- Basically it show all the information in the registry in a web-based portal

Who uses the registry? - ADMIRE myExperiment



Advanced Data Mining and Integration Research for Europe

Admire makes it easy to **find**, **use** and **share** scientific processing elements and other Research Objects, and to build communities.

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Who uses the registry? - ADMIRE myExperiment

The screenshot displays the ADMIRE myExperiment web interface. At the top, there is a navigation bar with tabs: Home, Users, Groups, Processing Elements, Types, Files, and Packs. Below this is a search bar with a dropdown menu set to 'All' and a 'Search' button. A green message box states 'Logged in successfully. Welcome to Admire!'. Below this, a yellow box indicates 'Admire currently has 2 members, 0 groups, 13 processing elements, 0 files and 0 packs'.

The main content area is divided into several sections:

- Site Announcements:** Shows 'None' with a '[See All]' link.
- My News:** Shows 'No news'.
- Updated Items:** A list of processing elements with a mouse cursor hovering over the title. The items are:
 - Processing Element: graph by Fauzan (about one day ago)
 - Processing Element: uk.org.ogsadai.ObtainFromFTP by Fauzan (about one day ago)
 - Processing Element: eu.admire.spatioTemporal.activities.tupleMerging.OrderedTuplesMerge by Fauzan (about one day ago)
 - Processing Element: uk.org.ogsadai.TupleToWebRowSetCharArrays by Fauzan (about one day ago)
 - Processing Element: eu.admire.buildclassifier by Fauzan (about one day ago)
 - Processing Element: uk.org.ogsadai.TupleSelect by Fauzan (about one day ago)
- Latest Groups:** Shows 'None'.
- Latest Tags:** Shows tags like 'another' and 'echo' with associated processing elements and their creation dates.

The right sidebar contains a 'New/Upload' section with a 'Proc. Element' dropdown and a 'GO' button. Below this is a user profile section for 'Admire' with a silhouette icon and links to 'My Profile', 'My Messages', 'My Memberships', 'My History', and 'My News'. At the bottom of the sidebar, there is a 'My Stuff' section showing '0 Friends', '0 Groups', and '3 Processingelements', followed by a 'Processingelements' list with items like 'eu.admire.Externa...', 'eu.admire.Serialiser', and 'uk.org.ogsadai Echo'.

Who uses the registry? - ADMIRE myExperiment

The screenshot displays the ADMIRE myExperiment website interface. At the top, there is a navigation bar with tabs: Home, Users, Groups, Processing Elements (selected), Types, Files, and Packs. Below this is a search bar with a dropdown menu set to 'All' and a 'Search' button. The main content area is titled 'Home » Processing Elements'. It features three buttons: 'Upload New Processing Element', 'View All Processing Elements', and 'Show Processing Elements from Registry'. Below these buttons, there is a section for 'Top 2 tags for Processingelements' with the tags 'another' and 'echo'. A filter bar shows 'Latest' selected, with options for 'Last Updated' and 'Most Viewed'. The main list of processing elements shows two items, both uploaded by 'Fauzan' on 20/01/11 at 11:59:29. The first item is 'graph (v1)' with a rating of 0.0/5 and no reviews. The second item is 'uk.org.ogsadai.ObtainFromFTP (v1)' with a rating of 0.0/5 and no reviews. Both items have a license of 'Creative Commons Attribution-Share Alike 3.0 Unported License' and no description. The right sidebar contains a 'New/Upload' section with a 'Proc. Element' dropdown and a 'GO' button. Below this is a user profile for 'Admire' with a list of links: 'My Profile [edit]', 'My Messages', 'My Memberships', 'My History', and 'My News'. The 'My Stuff' section shows '0 Friends', '0 Groups', and '3 Processingelements'. The 'Processingelements' section lists three items: 'eu.admire.Externa...', 'eu.admire.Serialiser', and 'uk.org.ogsadai.Echo'.

Home » Processing Elements

[Upload New Processing Element](#) [View All Processing Elements](#) [Show Processing Elements from Registry](#)

Top 2 tags for Processingelements [\[See All Tags\]](#)

another | echo

Latest Last Updated Most Viewed

Original Uploader **graph (v1)** [View](#) [Download \(v1\)](#)

Created: 20/01/11 @ 11:59:29
License: Creative Commons Attribution-Share Alike 3.0 Unported License
No description

Rating: 0.0 / 5 (0 ratings) | **Versions:** 1 | **Reviews:** 0 | **Comments:** 0 | **Citations:** 0
Viewed: 0 times | **Downloaded:** 0 times
This Processing element has no tags!

Original Uploader **uk.org.ogsadai.ObtainFromFTP (v1)** [View](#) [Download \(v1\)](#)

Created: 20/01/11 @ 11:59:29
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No description

New/Upload

Proc. Element

Admire

[My Profile \[edit\]](#)
[My Messages](#)
[My Memberships](#)
[My History](#)
[My News](#)

My Stuff

0 Friends | 0 Groups | 3 Processingelements

Processingelements

- eu.admire.Externa...
- eu.admire.Serialiser
- uk.org.ogsadai.Echo

- Introduction to ADMIRE
- The ADMIRE Registry – What is it?
- The ADMIRE Registry – How it works?
- The ADMIRE Registry – Who uses it?
- **Future work**

- Type checking
 - Currently basic type checking
 - In the life time of ADMIRE basic type checking and propagation
 - Reasoning needs large amounts of computational resources
 - Large amount of domain ontologies to reason with them
 - Compatibilities issues between ontologies, modules, imports of ontologies, etc.
 - All in a distributed fashion
 - Extend the current

- Distributed registry
 - All sources are distributed
 - Many registries may exist in time and work already done
 - Provide a single point of accessing all the possible registries
- Standards
 - SPARQL 1.1
 - Extend the registry for using SPARQL 1.1 Update and Fed extension
 - WS-DAI-RDF
 - Provide common methods to access the RDF data in the registry



ADMIRE Registry

15th April, 2011, Informatics Forum, Edinburgh

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