



Course Project – Query architecture

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Query architecture search for information from a data model.

RSS feed filter

Email finder

Semantics Web and Ontology

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Central notion is to apply criterion to some underlying data to select interesting information.

Yahoo Pipes



pipes™ Demo*

Layout Expand All Collapse All

Sources

- Fetch CSV +
- Feed Auto-Discover +
- Fetch Feed +
- Fetch Data +
- Fetch Page +
- Fetch Site Feed +
- Flickr +
- Google Base +
- Item Builder +
- Yahoo! Local +
- Yahoo! Search +

User inputs

Operators

- Url
- String
- Date
- Location
- Number
- Favorites
- My pipes
- Deprecated

```
graph TD; F1[Fetch Feed: http://www.osnews.com/files/rece] --> U[Union]; F2[Fetch Feed: http://rss.cnn.com/rss/cnn_topsto] --> U; U --> F[Filter: Permit, items that match all, of the following]; F --> PO[Pipe Output];
```

Yahoo Pipes



Demo

Click to add description

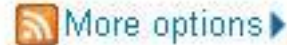
Pipe Web Address: http://pipes.yahoo.com/pipes/pipe.info?_id=40fee40783b1216813edd41736e469e6 (edit)

☆ Edit Source Delete Publish Clone

Use this Pipe



🔔 Get results by Email or Phone



List

2 items

Apple's 45nm Refresh: How Much of an Improvement?

AndandTech has thoroughly reviewed the new Penryn-based MacBooks and MacBook Pros and concludes: "The biggest improvement by far comes in the battery life department. Just as we had seen earlier, you can expect these new models to outlast their predecessors by a good 7 - 15%. The performance...

Ubuntu Mobile Takes on Apple Touch Interface

"Canonical today hoped to preempt all comers today with news of Ubuntu Mobile. Its first Linux variant aimed at handhelds, the software is tailored for the Mobile Internet Devices expected to launch in spring based on Intel's Silverthorne technology and is designed to recognize basic...



Library can be found at:

<http://developer.berlios.de/projects/eiffelrss/>



A code quality checking tool with seamlessly working style:

Coding – Metricing – Problem solving – Coding

Highly customizable:

Define your own metrics to match particular requires

Metric archive comparison:

Compare measurement of your software to others

Automatic metric quality checking:

Get warned when some quality criterion are not met

Metrics tool – Evaluate metric



Metric Evaluation Detailed Result Metric Definition Metric History Metric Archive

▶ Value: 10

Setup input domain:

- root_cluster
- base
- net
- time
- web

Select metric:



- Metrics
 - Class
 - Classes
 - Clients
 - Compiled classes
 - Deferred classes
 - Dependents
 - Descendants
 - Effective classes
 - Expanded classes
 - Frozen classes
 - Generic classes
 - Heirs
 - Indirect clients
 - Indirect heirs
 - Indirect parents
 - Indirect suppliers
 - Transient classes

Group





Metrics tool – Investigate result



Metric Evaluation Detailed Result Metric Definition Metric History Metric Archive

Metric name: Type: Unit: Value:  

Input domain:

root_cluster  base  net  time  web

Results:

Class	Location
<input checked="" type="radio"/> HTML_TABLE	web.table
<input checked="" type="radio"/> HTML_TABLE_CONSTANTS	web.table
<input checked="" type="radio"/> STDIN	web.stdio
<input checked="" type="radio"/> STDOUT	web.stdio
<input type="radio"/> SHARED_STDOUT	web.stdio
<input type="radio"/> SHARED_STDIN	web.stdio
<input checked="" type="radio"/> HTML_PAGE	web.html
<input type="radio"/> HTML_TEXT	web.html
<input type="radio"/> HTML_GENERATOR	web.html
<input type="radio"/> HTML_CONSTANTS	web.html
<input type="radio"/> HTML	web.html

Metrics tool – Define new metric



Metric Evaluation | Detailed Result | Metric Definition | Metric History | Metric Archive

Select metric:

Metrics

- Class
 - Classes
 - Clients
 - Compiled classes
 - Deferred classes
 - Dependents
 - Descendants
 - Effective classes
 - Expanded classes
 - Frozen classes
 - Generic classes
 - Heirs
 - Indirect clients
 - Indirect heirs
 - Indirect parents
 - Indirect suppliers
 - Invariant Equipped classes
 - Obsolete classes
 - Parents
 - Suppliers

Name: Unnamed class metric#3 Type: Basic Unit: Class

Description:

Definition:

Criterion	Properties
or	
is_obsolete	
not	

is_obsolete

- indexing_contain
- indexing_has_tag
- indirect_heir_is
- indirect_parent_is
- is_always_compiled
- is_compiled**
- is_deferred
- is_effective
- is_enum
- is_expanded
- is_external
- is_frozen
- is generic

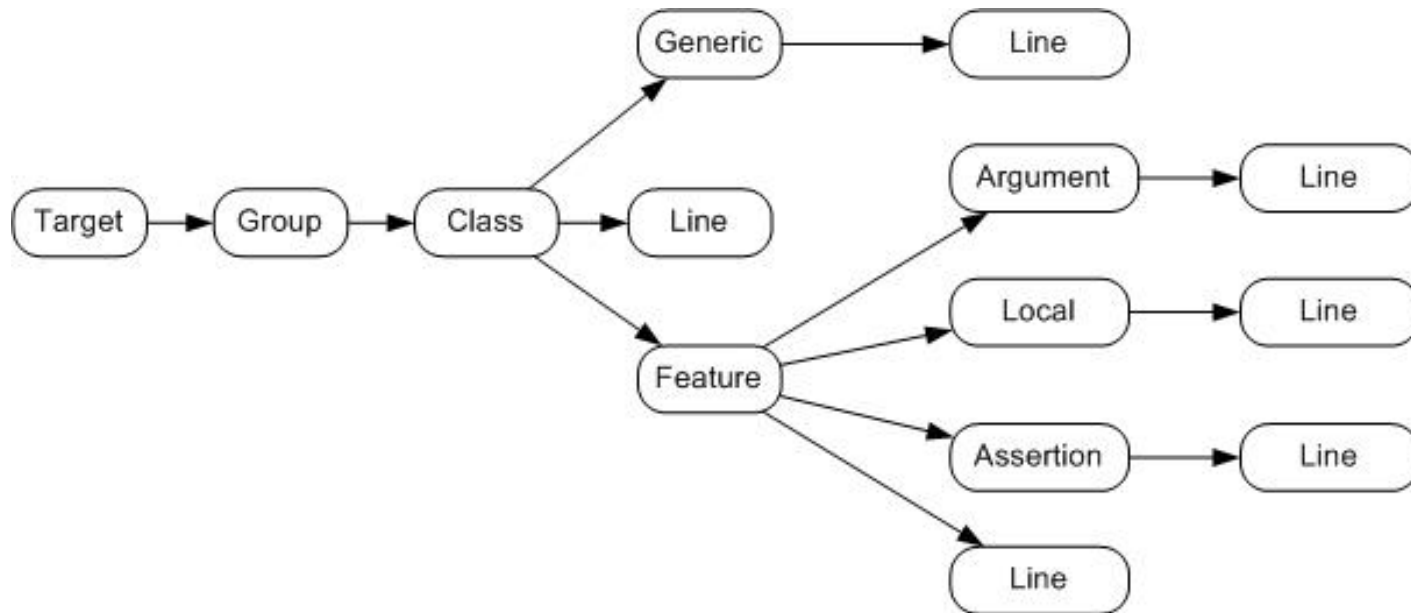
Express: is_obs

Sta

How Metrics tool works



Eiffel system hierarchy



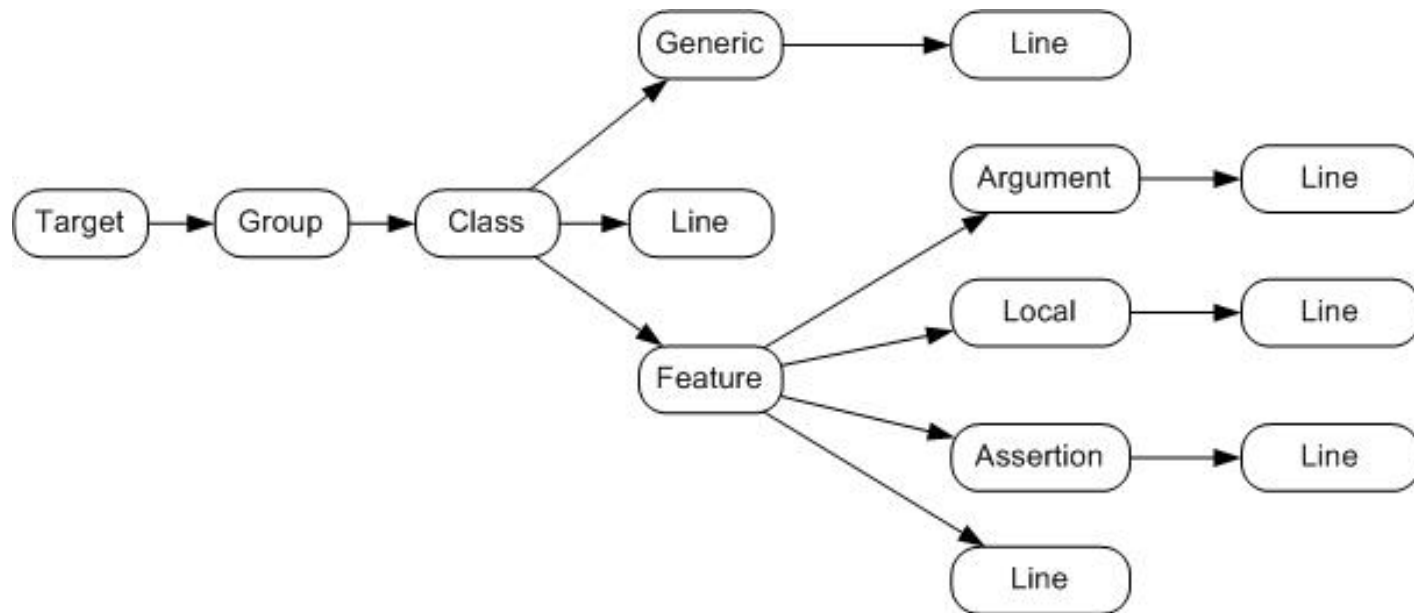
How Metrics tool works



Given a library, we want to find deferred features, we need:

First transform that library in to a set of feature

Then apply criterion “is_deferred” to that feature set



Possibly needed patterns



- Factory
- Visitor
- Composite
- Observer
- Decorator
- Iterator
- Adaptor
- ...

Possible project tasks



Bring the ability of adding new queryable elements

Enable query for new elements, such as

- AST nodes

- subversion histories

- ...

Or anything that you want to query for

Advertisement, or the truth



See architecture of an industrial mature compiler/IDE is organized

Separation different phases of compilation

Interfaces between GUI and compiler

Massive design pattern usage

Manipulate data structures while avoiding boring start-off work

AST nodes ready to use instead of parsing

Project configuration as basic data model

Inheritance, type information ready for query

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