

glamoroustoolkit

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Consider how different objects looks quite similar in the inspector

Variable	Value
self	(-26, 19)
x	-26
y	19

Variable	Value
self	Path * 'feencom' / 'gtoolkit' / 'doc' / 'g'
1	feencom
2	gtoolkit
3	doc
4	gtoolkit.png

Variable	Value
self	BElement @ 418132480 (nil)
bounds	(0.0@0.0) corner: (0.0@0.0)
boundsCache	a BIBoundsCache
children	a BICollection [7 items] (BIBezierEle
constraints	a BILayoutCommonConstraints
errorHandler	a BICompositeErrorHandler
eventDispatche	Bubbling event dispatcher for BIElemer
flags	a BIElementFlags
layout	a BILayout
measuredBoun	(0.0@0.0) corner: (0.0@0.0)
parent	nil
spaceReference	a BILayoutSpaceReference
taskQueue	a BILayoutQueue(0)
theme	a BIElementInheritedTheme

Variable	Value
self	a GtGraphCircleNeighbourhood
circles	an Array [2 items] (a GtGraphCircle a Gt
neighbourCircle	a GtGraphCircle

Variable	Value
self	The moldable editor can embed grap
announcer	a BILayoutAnnouncer
attributeRuns	a BILayoutTree
rope	The moldable editor can embed graphi

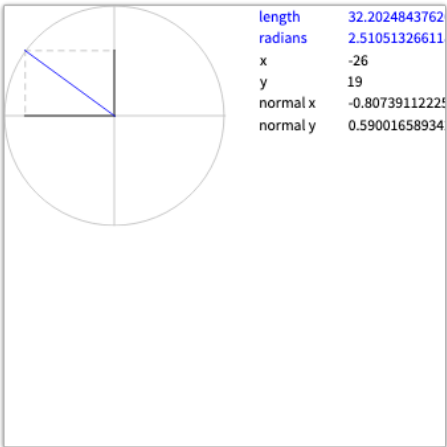
Variable	Value
self	Scaling by (2, 2, 1)
origin	a BILayoutTransformationCenterOrigin
scale	(2, 2, 1)

Variable	Value
self	a BILayoutScripter
element	GtExpandableMethodCoderElement @
eventHandler	Scripter event handler of BILayout
events	a BILayoutScripterEvents
maxPulseElaps	0:00:10:00
rootStep	Root
space	a BILayoutScripterSpace('Scripter')

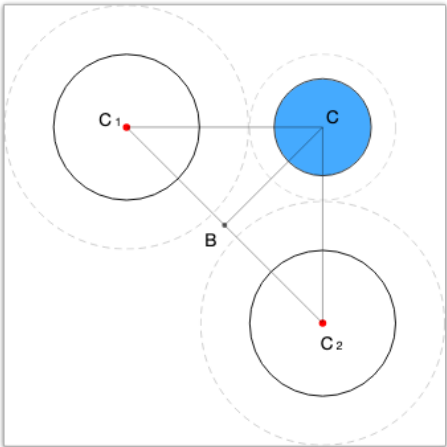
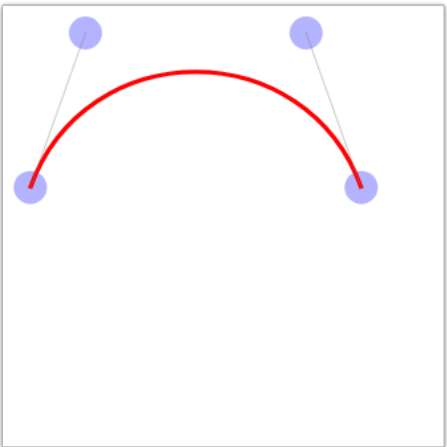
Variable	Value
self	a BILayoutFocusFinder
bestCandidateB	(175.89200019836426@35.6956787109:
direction	a BILayoutSearchDirectionDown
mustIncludeChi	false
reference	a BILayoutFocusFinderReferenceElement
rootElement	BElement @ 954267136 (nil)
temporaryBoun	(292.18800139427185@53.2935180664:

Variable	Value
self	BILayoutKeyboard @ 482004480 (nil)
bounds	(0.0@0.0) corner: (0.0@0.0)
boundsCache	a BILayoutBoundsCache
children	a BILayoutChildrenArray [64 items] (BILayme
constraints	a BILayoutCommonConstraints
errorHandler	a BILayoutCompositeErrorHandler
eventDispatche	Bubbling event dispatcher for BILayoutKey
flags	a BILayoutElementFlags
keymap	a Dictionary [64 items] (Key 0 code: (nil,
layout	a BILayoutFlowLayout
measuredBoun	(0.0@0.0) corner: (0.0@0.0)
parent	nil
spaceReference	a BILayoutSpaceReference
taskQueue	a BILayoutTaskQueue(0)
theme	a BILayoutInheritedTheme

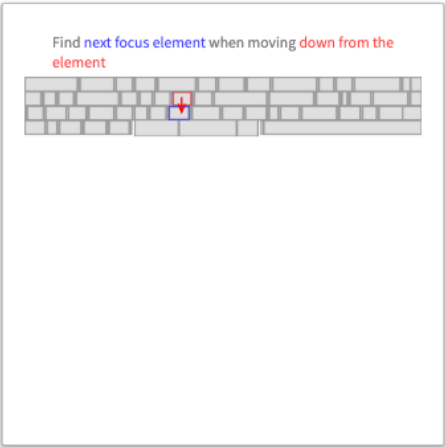
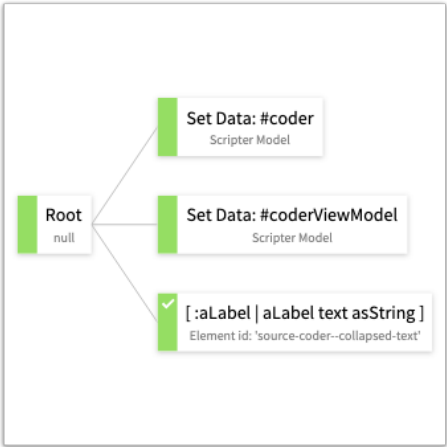
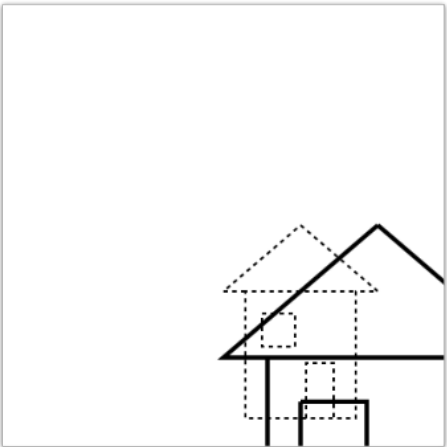
Yet, when we change the view the difference is obvious



Icon	Name	Actions
✓	//	
✓	Users/	
✓	andrei/	
✓	Documents/	
✓	Pharo/	
✓	images-manual/	
✓	gt-dev638/	
✓	glamoroustoolkit/	
✗	feenkcom	+ Make directory
✗	gtoolkit	
✗	doc	
✗	gtoolkit.png	



The **mol**dable editor
can embed graphical  elements.



Pager Flow

```
datasetLocation := FileLocator ▶ home ▶ / 'Downloads'.  
directory := datasetLocation / ▶ 'Geolife Trajectories 1.3-3'.●
```

```
localImporter := GtRmGeolifeLocalImporter ▶ new ▶  
  usersCount: ▶ 2.  
geoLife := localImporter importFromDirectory: ▶ directory.  
geoLife users ▶ .●
```

```
geoLife users ▶ items second  
  trajectoryNamed: '20081208142853.plt'●
```

```
geoLife users ▶ items second  
  trajectoryNamed: '20081203000505.plt'●
```

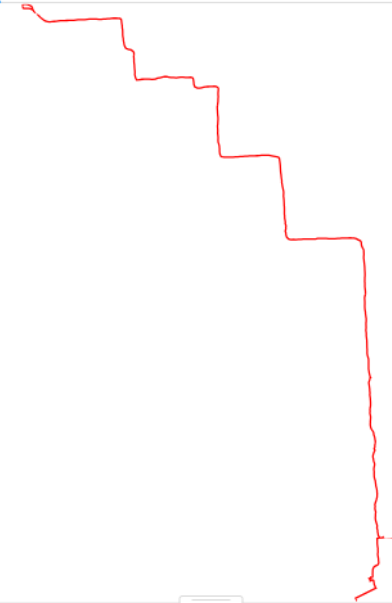
A trajectory is modeled by the class [GtRmGeoGpsTrajectory](#) ▶

More details about this demo at the book page [Geolife GPS trajectory dataset example](#)

▶ 1 explicit reference

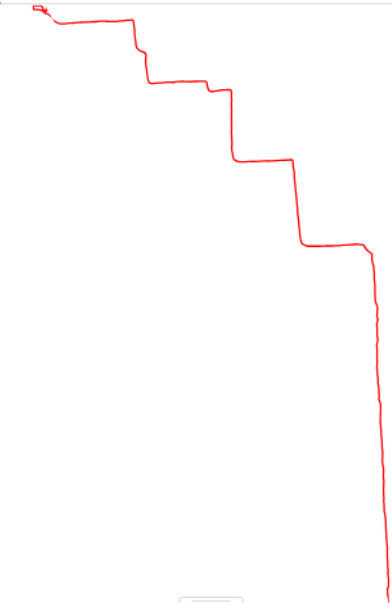
a GtRmGeoGpsTrajectory('20081208142853.plt'; 603 records)

Records OSM Path Shape Raw Print Meta



a GtRmGeoGpsTrajectory('20081203000505.plt'; 516 records)

Records OSM Path Shape Raw Print Meta



Caching attributes using incremental parsing

LeCodeSnippet>>#initialize ▶

```
GtTextualCoder ▶ useIncrementalParsing ▶ .  
GtPharoClassExpanderStyler ▶ usedVersion: ▶ 6
```

▶ 1 explicit reference

Class

LeCodeSnippet

Superclass: LeTextualSnippet Package: Lepiter-Core Tag: Model

Methods Definition Comment References References in snippets Advice definitions

Methods up to LeCodeSnippet Category All methods Instance slots All methods read/write

```
initialize ◀  
  super initialize ▶ .  
  
coder := self newCoder ◀  
  Lepiter-Core > LeCodeSnippet  
  newCoder ◀  
    ^ self subclassResponsibility ▶  
  
coder weak  
  when: GtCoderSourceCodeChanged ▶  
    send: #onCoderSourceModified: ▶  
    to: self;  
  when: GtCoderRenameTemporaryRequestedAnnouncement ▶  
    send: #onCoderRenameTemporaryRequested: ▶  
    to: self
```

initialization instance

initialization instance

api - testing instance

testing instance

as yet unclassified instance

initialization instance

private - event handling instance

private - event handling instance

printing instance

references instance

private - event handling instance

testing instance

printing instance

api - accessing instance

private - event handling instance

api - editing instance

api - editing instance

api - editing instance

api - editing instance

instance creation class

utils class

isCodeSnippet

isForLocalImage

markdownOn:level:

newCoder

onCoderRenameTemporaryRequested:

onCoderSourceModified:

printOn: ^

removeParameterFrom:using: ^

shouldAddTraceEventForChange:

shouldPerformLocalRefactoring

storeOn:

text

updateAfterChange:

updateFromCommandText:source:

updateFromTextEditCommand:source:

updateFromTextEditCommand:withText:source:

updateText:source:

code:

createTextAttributeWithValue:

a GtIncrementalParserFullUpdateAstComparison (Incremental AST comparison (#GtPharoMethodNode (reused)))

Code DiffExploreTreePrevious ASTUpdated ASTRawPrintMeta

Node	Type	Id
self	GtPharoMethodNode	15 (matched)
pattern	GtPharoMethodPatternNode	17 (new)
selectorParts		
variables		
body	GtPharoSequenceNode	14 (matched)
statements		
1	GtPharoReturnNode	13 (matched)
upArrow	token: "A"	
value	GtPharoCascadeNode	12 (matched)
receiver	GtPharoMessageSendNode	6 (matched)
messages		
1	GtPharoKeywordMessageNode	8 (matched)
2	GtPharoKeywordMessageNode	10 (matched)
3	GtPharoKeywordMessageNode	19 (new)
4	GtPharoUnaryMessageNode	11 (matched)
semicolons		

a GtIncrementalParserAstNodeComparison (#GtPharoKeywordMessageNode (reused))

ExploreTreeRawPrintMeta

```
with: a with: b with: c
^ OrderedCollection new
  add: a;
  add: b;
  add: c;
  yourself
```

Node	Type	Id
self	GtPharoKeyworc	8 (matched)
selectorParts		
values		

Basic LLM agents in GT

Rewrite rules - first try

Rewrite rules - explanation & custom response

```
agent := GtLAgent ▶ new ▶  
  markdownResponse ▶;  
  addResponseFormatForMagritte: GtLRewriteRule ▶ named: ▶ 'RewriteRule';  
  tools: ▶ GtLTools ▶ leSearch ▶  
    , GtLTools ▶ gtSearch ▶;  
  gtPageExplanation: ▶ 'Rewriting Pharo code by example' ▶;  
  sendMarkdown: ▶ 'Provide the rewrite rule for removing all `self halt`  
statements from methods. Explore also the documentation and code before  
answering' ▶
```

▶ 1 explicit reference

Chat

Live Messages Object storage Instructions Summarizers

You

▶ Provide the rewrite rule for removing all `self halt` ...

GPT 5.4

▶ lookupClass(RBParseTreeRewriter) + 5 other tools

Rewrite Markdown Response models Output formats

Search in: All Methods + for: Full methods

| `@temps` | `@.before. self halt. `@.after

▶i

Replace with:

| `@temps` | `@.before. `@.after

▶i

✓ GPT 5.4

a GtRmGeoUser('000'; 171 trajectories)			
Overview	Trajectories	Records	Raw Print Meta
Filename	Records		Distance (km)
20081118162008.plt	7		0.01
20090520010901.plt	185		2.47
20090415000406.plt	145		2.45
20081201111827.plt	183		1.39
20081028003826.plt	1477		7.02
20090616054128.plt	3608		46.82
20090422023859.plt	1103		13.26
20090515014004.plt	978		7.87
20090520210235.plt	79		1.19
20090331003904.plt	1450		10.05
20090427215826.plt	186		1.88
20081123102153.plt	21		0.51
20081024020959.plt	244		1.12
20081214011036.plt	146		2.20
20090428051631.plt	460		4.23
20081203151206.plt	279		2.83
20081023025304.plt	908		14.21
20090607163831.plt	109		1.27
20081113034608.plt	494		12.18
20081027115449.plt	50		1.16
20090425005731.plt	3321		94.83
20090508015405.plt	133		1.67
20090423181101.plt	222		2.17
20090519174038.plt	114		1.23
20081120035736.plt	55		1.04
20090602185307.plt	538		2.65
20090628005229.plt	5848		154.07
20081119112035.plt	419		6.06
20090426175513.plt	152		2.05
20090609002030.plt	3716		33.93
20081118095005.plt	32		0.72
20090528012338.plt	3330		37.54
20090620024527.plt	682		13.10
20090410021935.plt	1886		60.82
20090419175500.plt	285		2.41
20090412073303.plt	1754		59.91
20090627101821.plt	1803		6.79
20090405051938.plt	4004		39.31
20090517054624.plt	1011		12.13

Chat

Live

Messages

Object storage

Instructions

Summarizers

You

Markdown

Input models

Output formats

Message JSON

Message Data

Data View

Ir

What is the filename of the trajectory with the longest distance? How long is it? How many points?

GPT 5.4

getObjectStorageValue(21nnoycp6sg0ls516ctvqmc...

getObjectStorageSlotValue(21nnoycp6sg0ls516ctv...

lookupClass(GtRmGeoGpsTrajectory)

lookupClass(GtRmGeoGpsTrajectoriesGroup)

smalltalkCodeEvaluation(an Array [1 item] (a GtLsm...

Markdown

Response models

Output formats

The trajectory with the longest distance is **20090625041631.plt**.

- Distance: **784856.5154169608**

- Points: **2003**

GPT 5.4

Custom extensions

#gtView gtPragmas ▶

▶ 1 explicit reference

a GtSearchPragmasFilter (#gtView pragmas)

Results Metrics By Package By Class By Method Raw Print Meta

Metric	Value
Number of methods	5081
Lines of code	60872
Lines per method	11.980318834875025

The whole system is touched by custom views that are then complemented by examples.

