

15926 Test Cases : TopBraid Guide

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TopBraid Free Edition

- Go to www.topquadrant.com and select “Download” at top of page
- When you reach the page where you can download choose “Product” where you can select “Free Edition” and then your “OS” (Linux, Mac, Windows) and “32-64 bit” (select 64 if you have a modern PC).
- After download, unarchive and run setup or install in an executable folder. Note that TopBraid is a Java application.

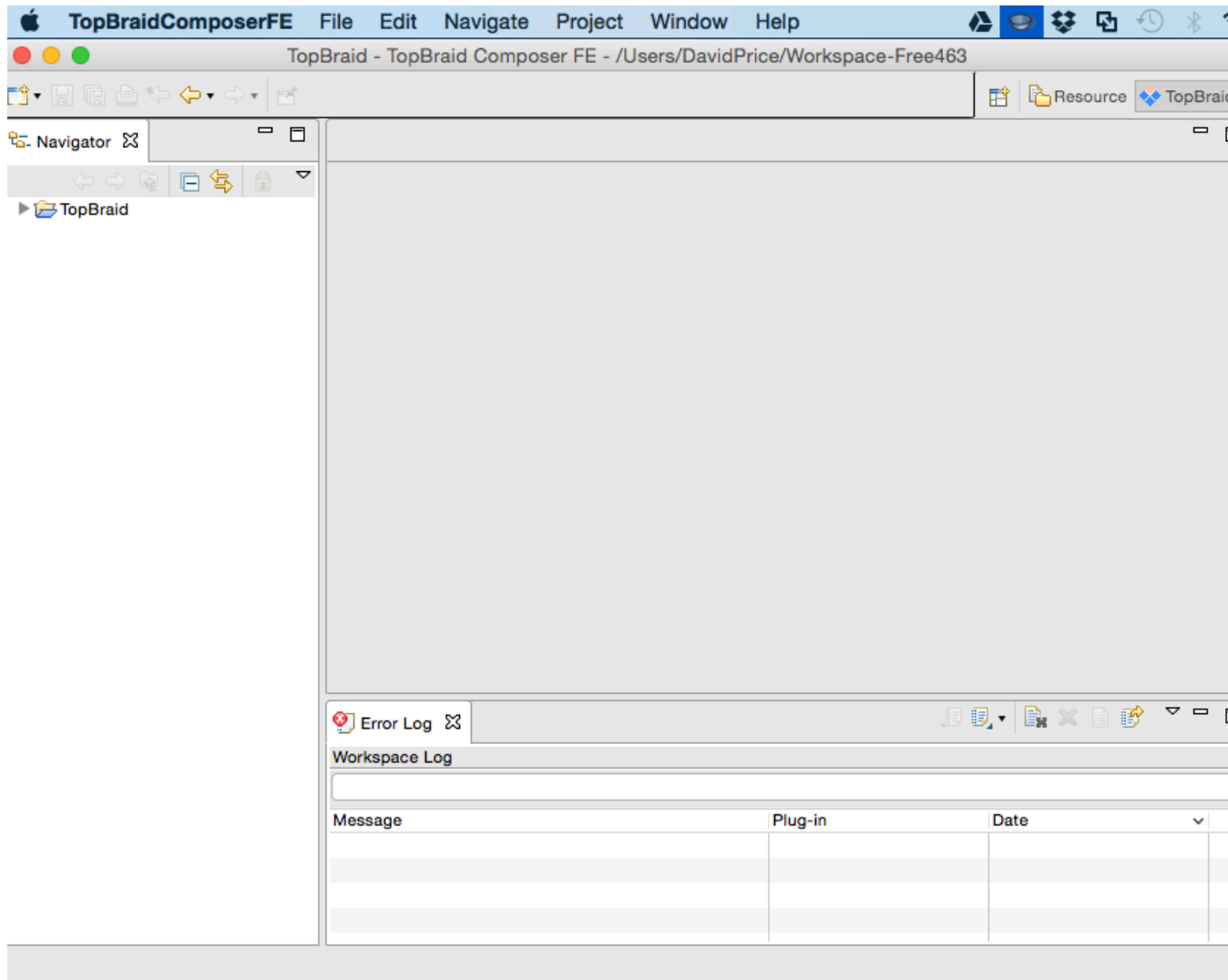
Installation

- After download, un-archive and install. Web page Installation Instructions :
 - Start by unzipping the download file to a folder. TopBraid Composer can be installed in any folder with write access. Installing into the Program Files folder is not recommended, as some versions of Windows restrict access to this folder. Double-click the executable file named "TopBraid Composer".
- There is Help at:
 - <http://www.topquadrant.com/knowledge-assets/product-documentation/#tbcdoc>
 - It is worth a few minutes looking at the “Getting Started Guide” if you are not familiar with eclipse-based tools.

Usage

- The following screenshots show how to get the 15926 test case project imported. They are taken from a Mac, so you may not see exactly the same user interface as shown in the screenshots.

First time opening TBC



Note : You can ask for Help

The screenshot displays the TopBraid Composer FE interface. The main window shows a 'Resource Form' for the resource 'atc00000:PossibleIndividual_2'. The form includes sections for 'Annotations', 'Other Properties', and 'Incoming References'. The 'Annotations' section shows an 'rdfs:comment' with the text 'EDRC Use Case 1 Section 6.1.1 Define Project Activity (ClassificationOfIndividual)'. The 'Other Properties' section shows an 'rdfs:label' with the text 'Define Project Activity' and an 'rdf:type' set to 'dm:Activity'. The 'Incoming References' section shows three references: 'tpl:hasClassified' pointing to 'atc00000:ClassificationOfIndividual_2', 'tpl:hasIdentified' pointing to 'atc00000:ClassifiedIdentificationOfIndividual_1', and 'tpl:hasReferred' pointing to 'atc00000:ReferenceToIndividualOnDocument_1'.

On the left side, there is a 'Navigator' panel showing a hierarchy of classes: 'rdfs:Resource (5361)', 'owl:AllDisjointClasses (2)', 'owl:Thing (2088)', and 'dm:Thing (8)'. The 'dm:Thing (8)' class is expanded, showing a list of subclasses including 'owl:EmptyList', 'owl:OWList', 'p7tm:Template (178)', 'p7tm:TemplateRole', 'p7tm:TemplateStatement (873)', and various 'tpl:ActivityCauses...' classes.

On the right side, a 'Help' menu is open, showing options such as 'Search', 'Help Contents', 'Search Dynamic Help', 'Key Assist...', 'Cheat Sheets...', 'Check for Updates', and 'Install New Software...'. The 'Help Contents' option is highlighted.

And it appears in your browser

The screenshot shows a web browser window with multiple tabs. The active tab is titled "Help - TopBraid Compos...". The address bar shows the URL "127.0.0.1:60528/help/index.jsp". The search bar contains the text "sampling technique". The browser's toolbar includes various navigation and utility icons. Below the toolbar, there is a search bar with the text "Search:" and a "Go" button. The main content area is divided into two sections. On the left, there is a "Contents" sidebar with a tree view of topics. The tree view is expanded to show the "TopBraid Composer" section, which includes sub-topics like "Getting Started", "User Interface Overview", "Editing Ontologies and RDF Data", "TopBraid Live Integration", "Application Development Tools", "Importing Data Sources", "Exporting Data Sources", "Working with Data Back Ends", "Working with XML and Table files", "Developing Web Data (Microdata, RDFa)", "RDF and TopBraid", "Enterprise Vocabulary Net (EVN)", "Extending TopBraid Suite", "Data Integration", "How to?", and "Reference". On the right, the main content area displays the "Using the help system" page. This page has a header with three question marks and a background image of a globe. The page content includes sections for "Using the help system", "Searching", "Synchronizing", "Capabilities", and "Keyword Index".

127.0.0.1:60528/help/index.jsp

Search: Go Scope: All topics

Contents

- TopBraid Composer
 - Getting Started
 - User Interface Overview
 - Editing Ontologies and RDF Data
 - TopBraid Live Integration
 - Application Development Tools
 - Importing Data Sources
 - Exporting Data Sources
 - Working with Data Back Ends
 - Working with XML and Table files
 - Developing Web Data (Microdata, RDFa)
 - RDF and TopBraid
 - Enterprise Vocabulary Net (EVN)
 - Extending TopBraid Suite
 - Data Integration
 - How to?
 - Reference

Using the help system

Browse topics in the **Contents** frame (📁) on the left. Click on a topic to have it displayed. Use the **Back** and **Forward** buttons to navigate within the history of viewed topics.

Searching

To quickly locate topics on a particular subject in the documentation, enter a query in the **Search** field. Use the **Search** frame (🔍) to display the Search view. You can narrow the **scope** of your search by selecting only the sections you are interested in.

Synchronizing

Clicking the **Show in Table of Contents** button (📁) will select that topic in the navigation tree. The **Link with Contents** button (🔗) keeps the navigation tree synchronized to the current topic.

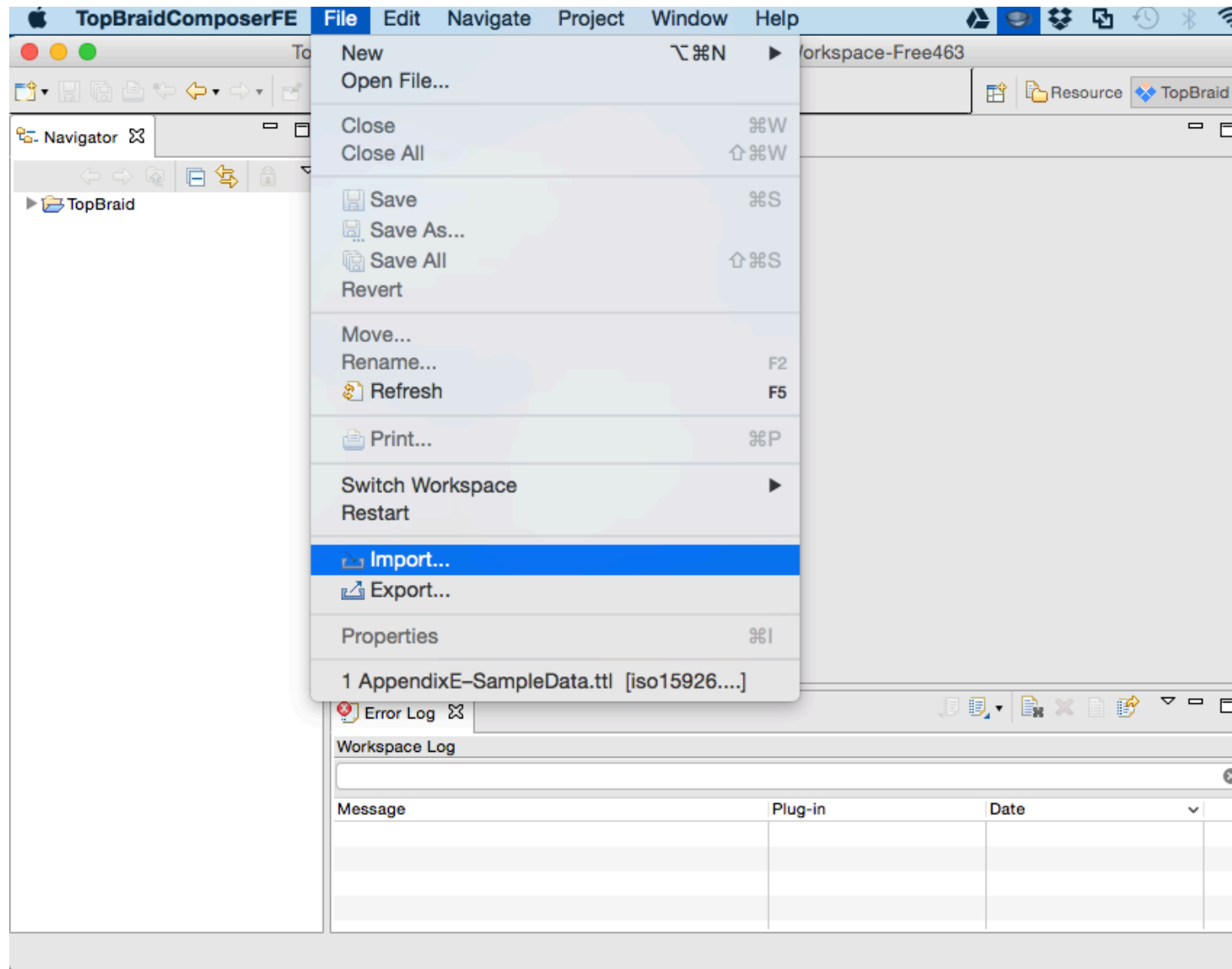
Capabilities

To show documentation about capabilities that are disabled in the application, select the **Show All Topics** button (🔍). This affects the table of contents and search results.

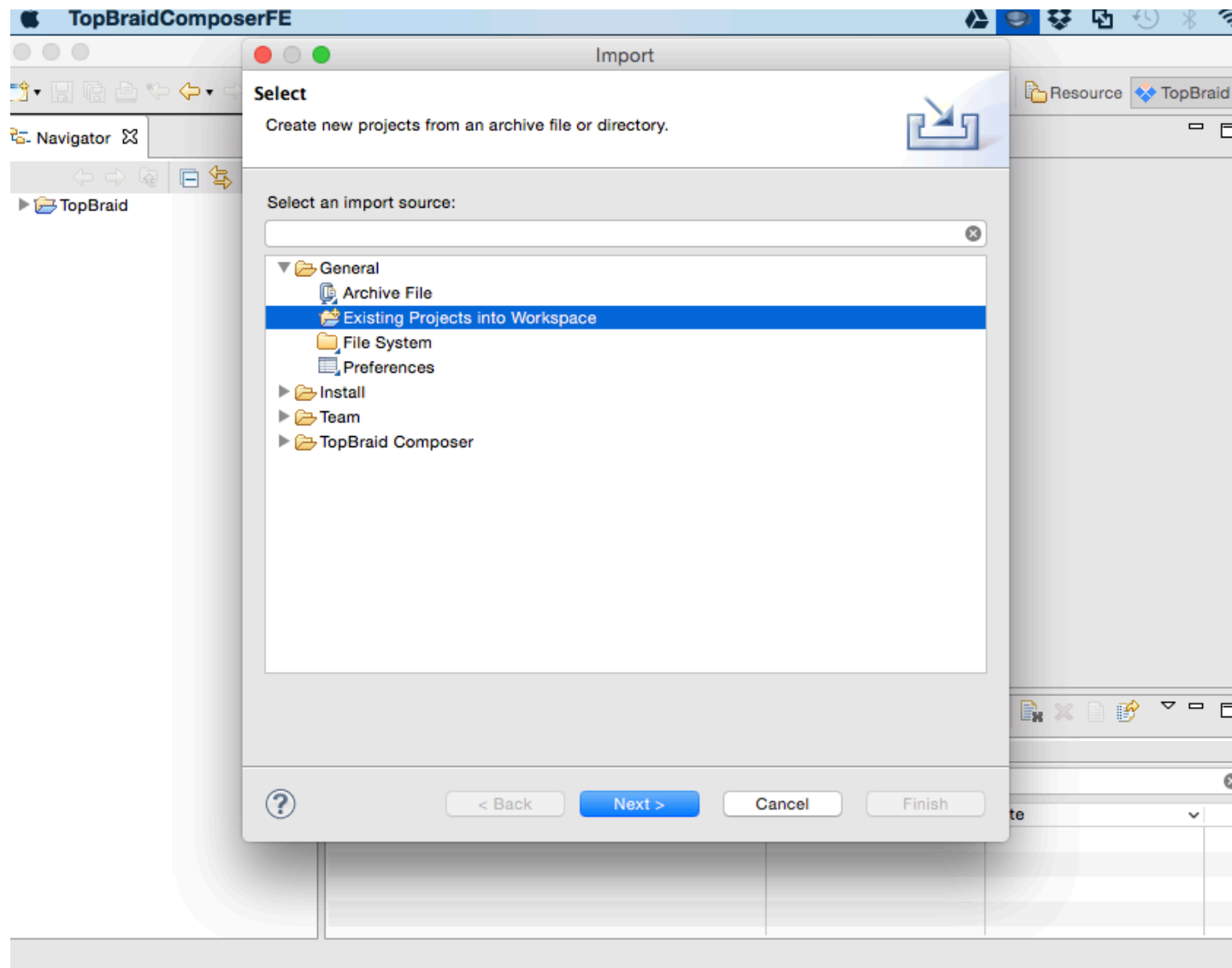
Keyword Index

To show an alphabetically sorted index of keywords select the **Index Frame** (📖). Not all products contain an index.

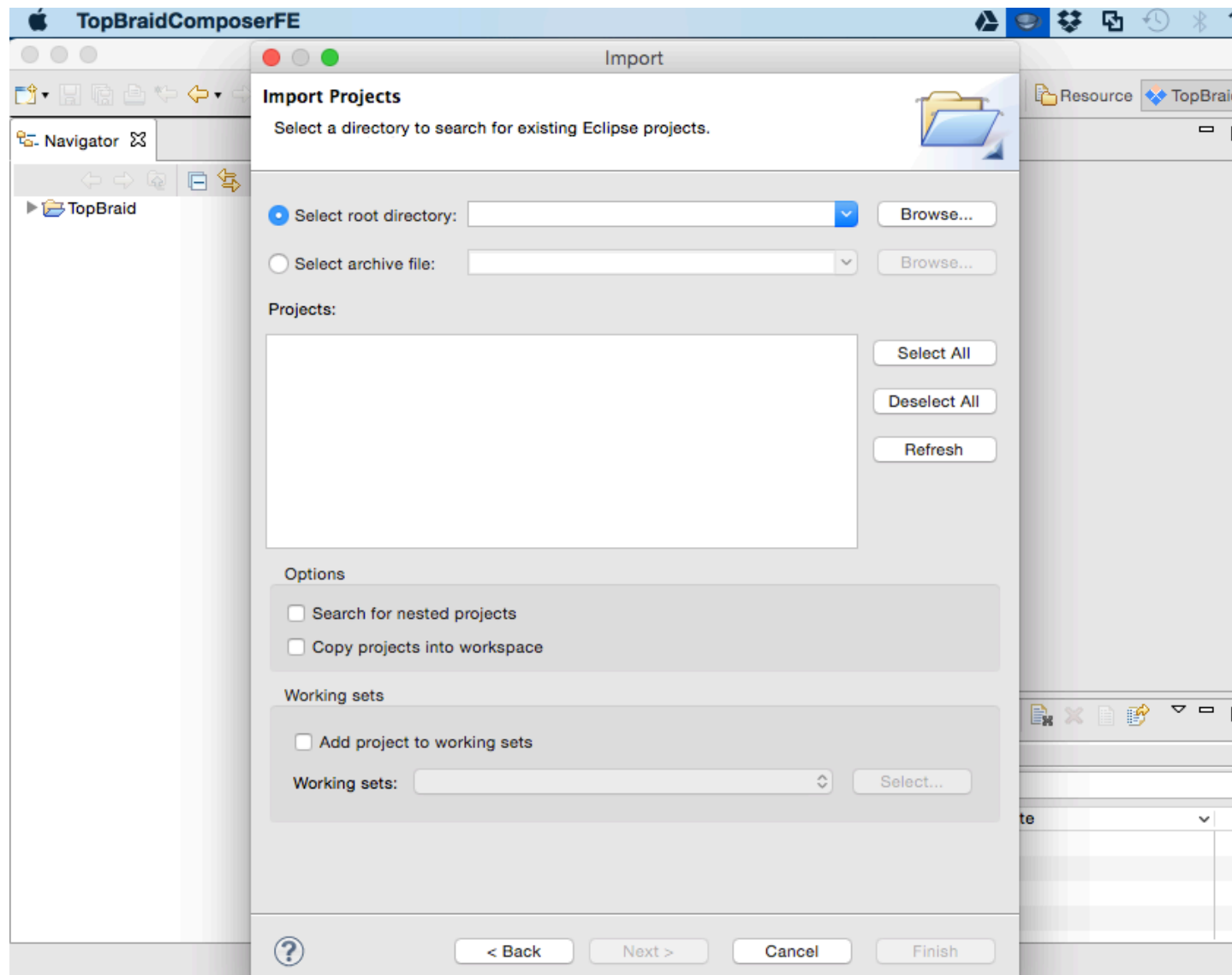
Choose File, then Import



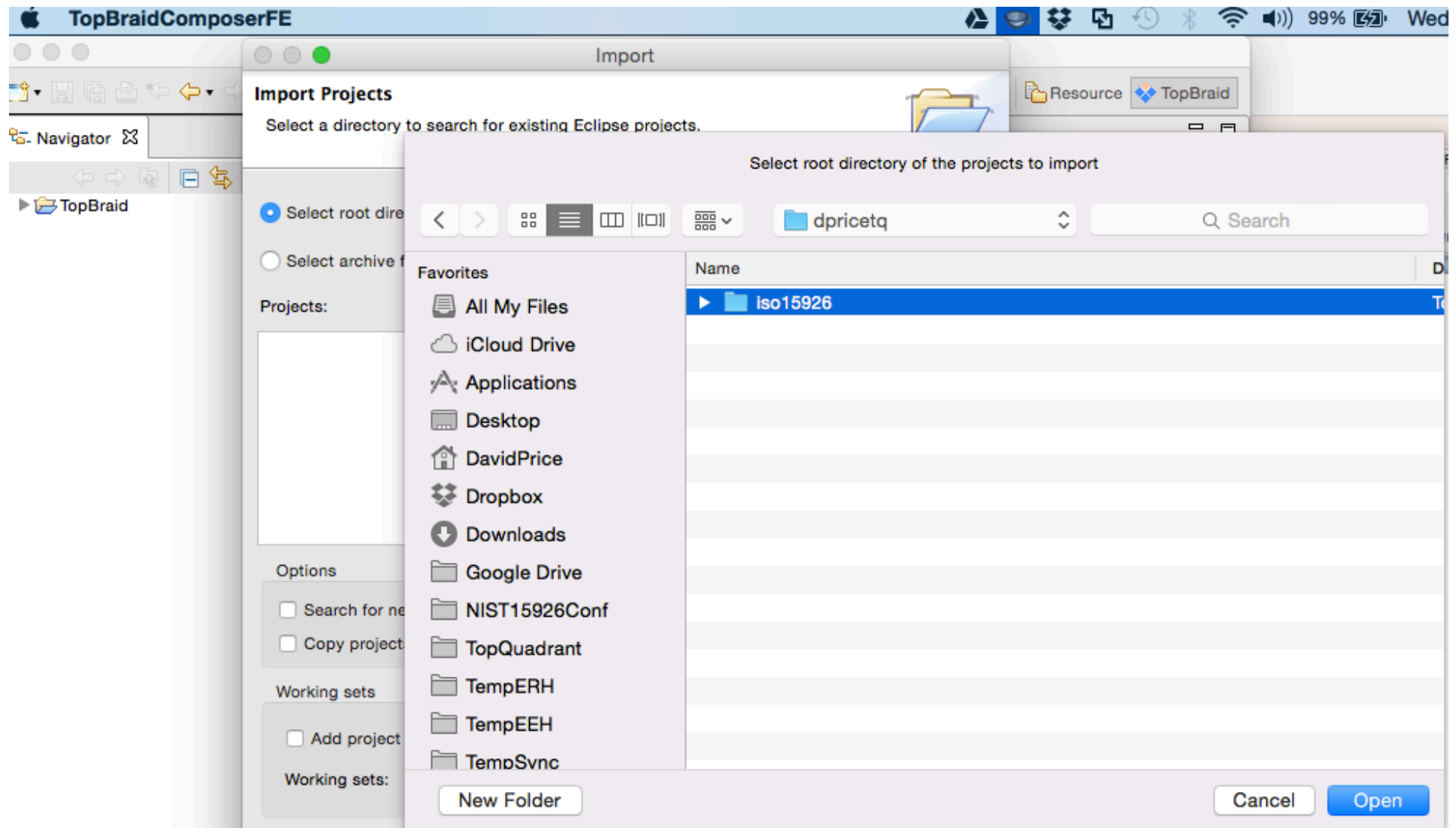
Existing Project into Workspace



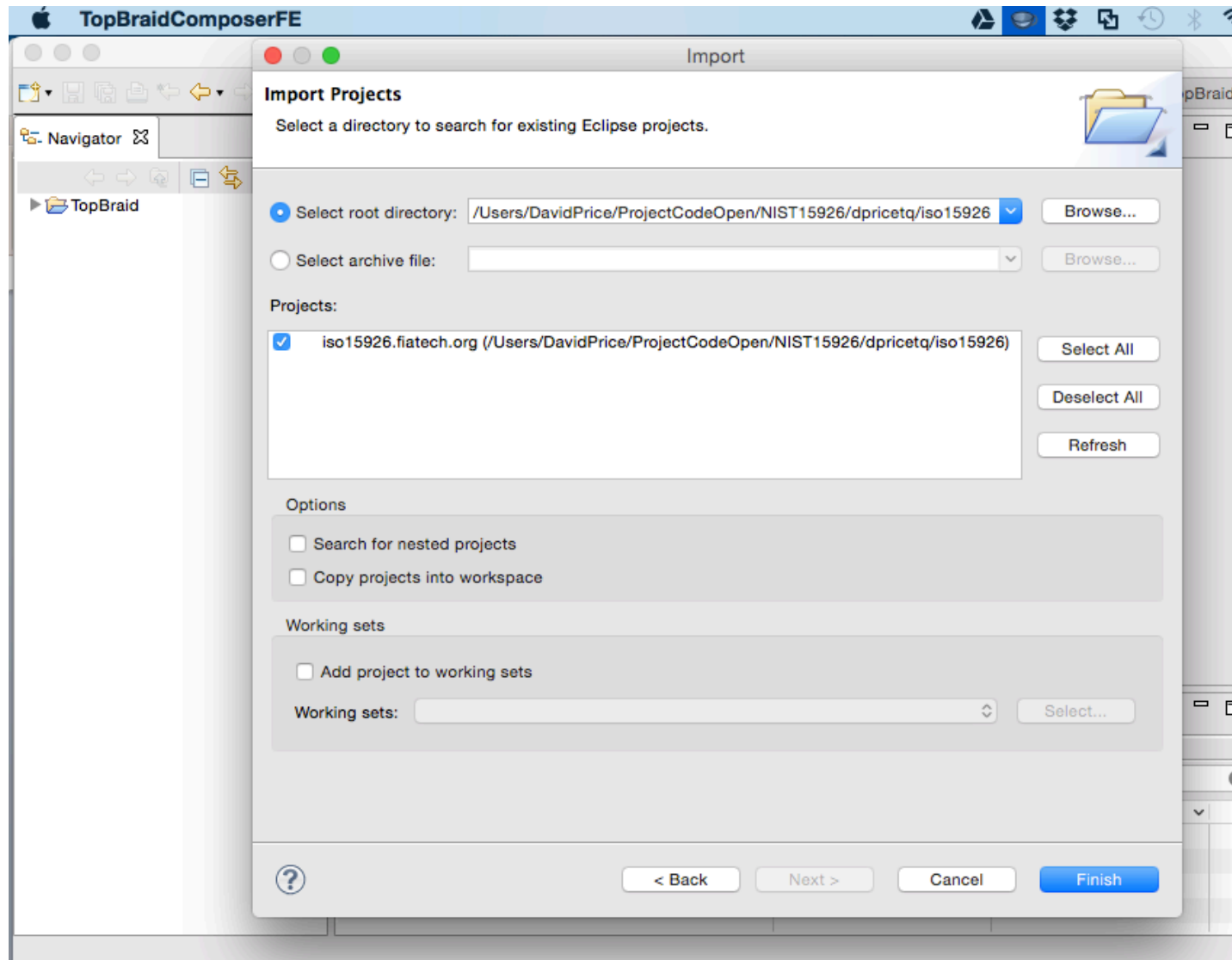
Choose Select root directory, and then choose Browse to find test cases on your computer



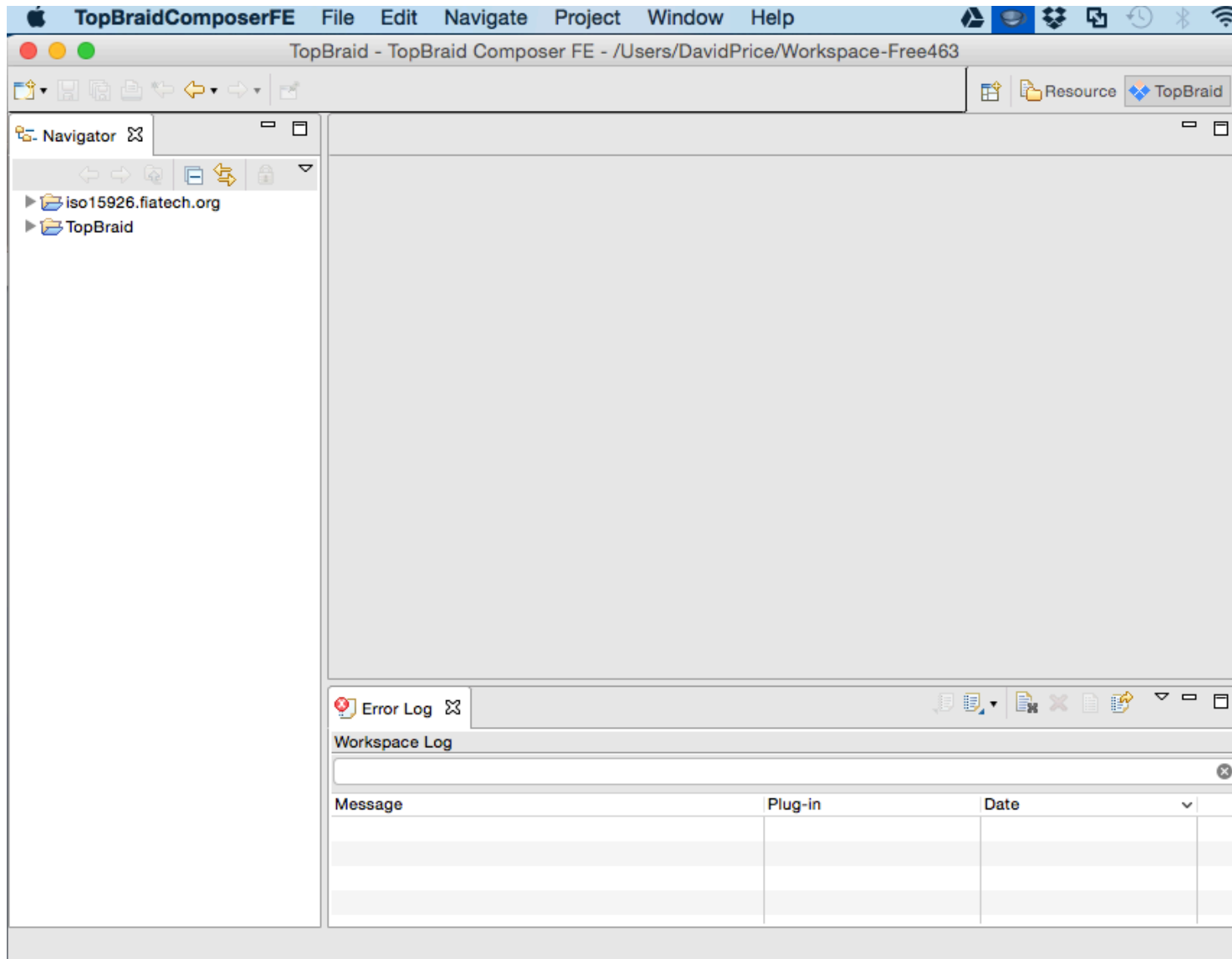
Navigate to find where you downloaded the test cases and choose Open



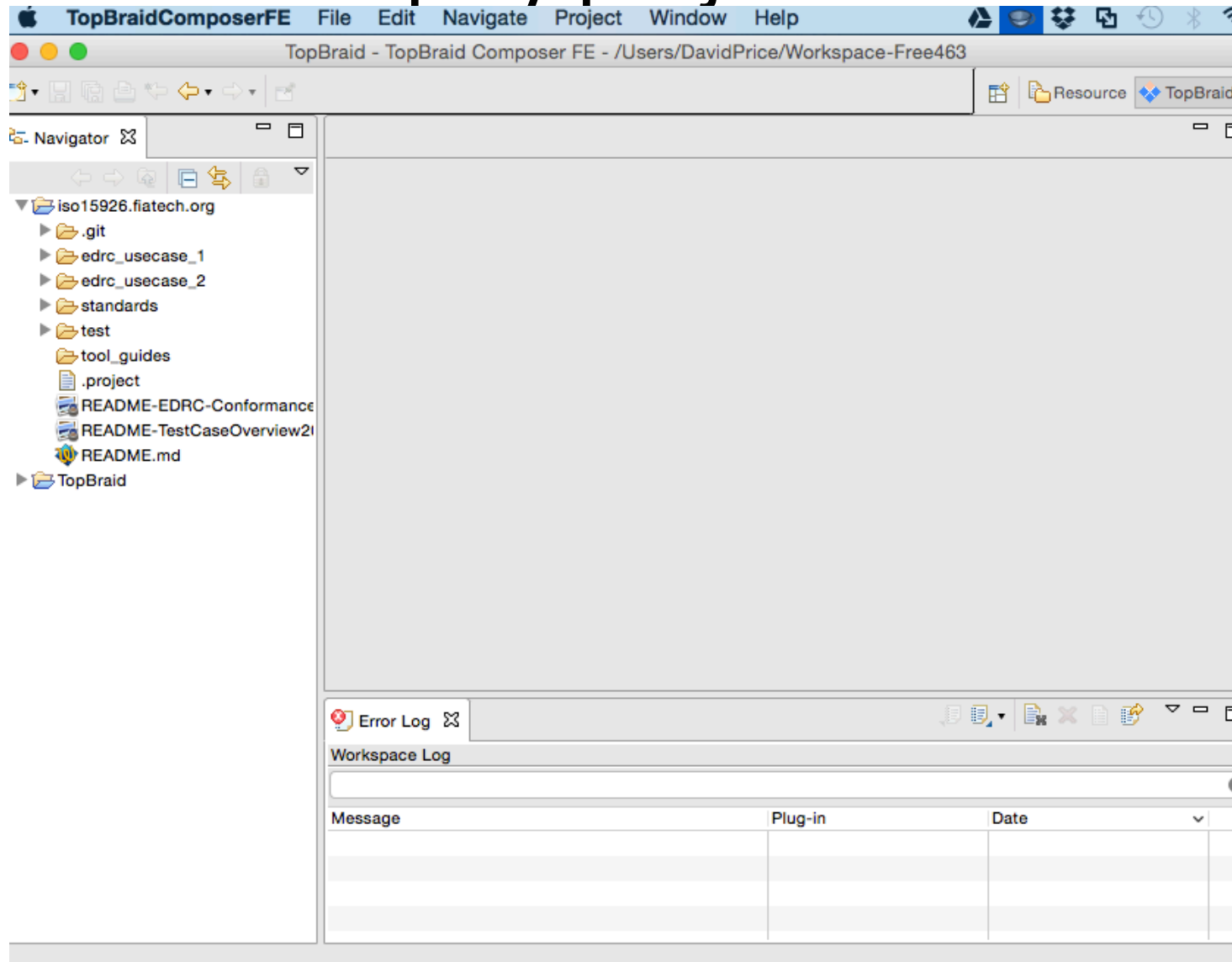
After Selecting root directory, you should see iso15926.fiatech.org Project, then select Finish



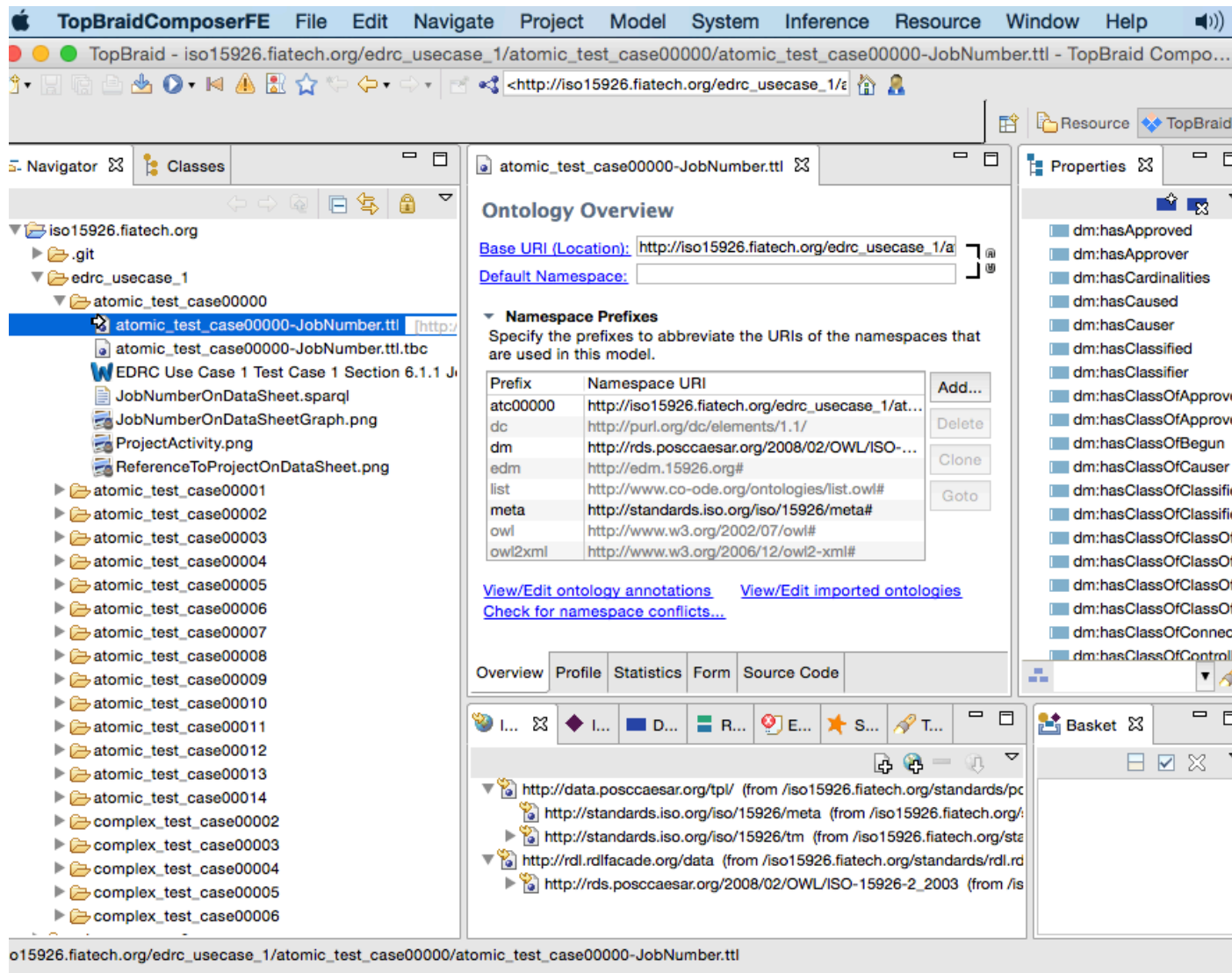
Import complete



Navigator pane, select little arrow to display project folders



Double-click to open a test case ttl file,
note that you can resize the panes



Select Classes pan and arrow to show classes under owl:Thing

The screenshot displays the TopBraidComposerFE application interface. The 'Classes' pan on the left shows a hierarchical tree of classes. The 'Ontology Overview' section in the center provides details about the ontology, including the Base URI, Default Namespace, and Namespace Prefixes. The 'Properties' pan on the right lists various properties.

Classes

- ▼ rdfs:Resource (5361)
 - owl:AllDisjointClasses (2)
 - ▼ owl:Thing (2088)
 - dm:Thing (8)
 - owl:EmptyList
 - owl:OWList
 - p7tm:Template (178)
 - p7tm:TemplateRole
 - p7tm:TemplateStatement (873)
 - tpl:ActivityCausesBegunIndividual
 - tpl:ActivityCausesDeprecatedClass
 - tpl:ActivityCausesEffectiveClass
 - tpl:ActivityCausesEndedIndividual
 - tpl:ActivityCausesStatusedClass
 - tpl:ActivityCausesTwoRelatedBegunIndividuals
 - tpl:ActivityCausesTwoRelatedDeprecatedClasses
 - tpl:ActivityCausesTwoRelatedEffectiveClasses
 - tpl:ActivityCausesTwoRelatedEndedIndividuals
 - tpl:ActivityCausesTwoRelatedStatusedClasses
 - tpl:AggregateOfMonotypeIndividual
 - tpl:ApprovalWithStatusOfRelationshipByIndividual
 - tpl:ArrangementOfAnIndividual
 - tpl:AssemblyOfAnIndividual
 - tpl:BeginningOfIndividualAtClassifiedEvent
 - tpl:ClassificationOfClassOfIndividual (1)
 - tpl:ClassificationOfClassOfIndividualApplicableYesNo
 - tpl:ClassificationOfIndividual (1)
 - tpl:ClassificationOfIndividualWithBiologicalMatterType
 - tpl:ClassificationOfIndividualWithCompositeMaterial
 - tpl:ClassificationOfIndividualWithCompoundType

Ontology Overview

Base URI (Location): http://iso15926.fiotech.org/edrc_usecase_1/a

Default Namespace:

Namespace Prefixes

Specify the prefixes to abbreviate the URIs of the namespaces that are used in this model.

Prefix	Namespace URI
atc00000	http://iso15926.fiotech.org/edrc_usecase_1/a
dc	http://purl.org/dc/elements/1.1/
dm	http://rds.posccaesar.org/2008/02/OWL/ISO-15926-2_2003
edm	http://edm.15926.org#
list	http://www.co-ode.org/ontologies/list.owl#
meta	http://standards.iso.org/iso/15926/meta#
owl	http://www.w3.org/2002/07/owl#
owl2xml	http://www.w3.org/2006/12/owl2-xml#

[View/Edit ontology annotations](#) [View/Edit imported ontologies](#)
[Check for namespace conflicts...](#)

Properties

- dm:hasApproved
- dm:hasApprover
- dm:hasCardinalities
- dm:hasCaused
- dm:hasCauser
- dm:hasClassified
- dm:hasClassifier
- dm:hasClassOfApproved
- dm:hasClassOfApprover
- dm:hasClassOfBegun
- dm:hasClassOfCauser
- dm:hasClassOfClassified
- dm:hasClassOfClassifier
- dm:hasClassOfClassOfC
- dm:hasClassOfClassOfP
- dm:hasClassOfClassOfU
- dm:hasClassOfClassOfW
- dm:hasClassOfConnectic
- dm:hasClassOfController

Select and open a .sparql file

The screenshot displays the TopBraidComposerFE application interface. The main window shows the 'Ontology Overview' for the file 'atomic_test_case00000-JobNumber.ttl'. The 'Navigator' panel on the left shows a tree structure of files and folders. The 'Properties' panel on the right lists various ontology properties. The 'Overview' tab is selected at the bottom.

TopBraidComposerFE File Edit Navigate Project Model System Inference Resource Window Help

TopBraid - iso15926.fi.atech.org/edrc_usecase_1/atomic_test_case00000/atomic_test_case00000-JobNumber.ttl - TopBraid Compo...

<http://iso15926.fi.atech.org/edrc_usecase_1/

Resource TopBraid

Navigator Classes

iso15926.fi.atech.org

- .git
- edrc_usecase_1
 - atomic_test_case00000
 - atomic_test_case00000-JobNumber.ttl [http://iso15926.fi.atech.org/edrc_usecase_1/atomic_test_case00000-JobNumber.ttl]
 - atomic_test_case00000-JobNumber.ttl.tbc
 - EDRC Use Case 1 Test Case 1 Section 6.1.1 JobNumberOnDataSheet.sparql
 - JobNumberOnDataSheetGraph.png
 - ProjectActivity.png
 - ReferenceToProjectOnDataSheet.png
 - atomic_test_case00001
 - atomic_test_case00002
 - atomic_test_case00003
 - atomic_test_case00004
 - atomic_test_case00005
 - atomic_test_case00006
 - atomic_test_case00007
 - atomic_test_case00008
 - atomic_test_case00009
 - atomic_test_case00010
 - atomic_test_case00011
 - atomic_test_case00012
 - atomic_test_case00013
 - atomic_test_case00014
 - complex_test_case00002
 - complex_test_case00003
 - complex_test_case00004
 - complex_test_case00005
 - complex_test_case00006

atomic_test_case00000-JobNumber.ttl

Ontology Overview

Base URI (Location): http://iso15926.fi.atech.org/edrc_usecase_1/atomic_test_case00000-JobNumber.ttl

Default Namespace:

Namespace Prefixes

Specify the prefixes to abbreviate the URIs of the namespaces that are used in this model.

Prefix	Namespace URI
atc00000	http://iso15926.fi.atech.org/edrc_usecase_1/atomic_test_case00000-JobNumber.ttl
dc	http://purl.org/dc/elements/1.1/
dm	http://rds.posccaesar.org/2008/02/OWL/ISO-15926-2_2003
edm	http://edm.15926.org/
list	http://www.co-ode.org/ontologies/list.owl#
meta	http://standards.iso.org/iso/15926/meta#
owl	http://www.w3.org/2002/07/owl#
owl2xml	http://www.w3.org/2006/12/owl2-xml#

Add... Delete Clone Goto

[View/Edit ontology annotations](#) [View/Edit imported ontologies](#)

[Check for namespace conflicts...](#)

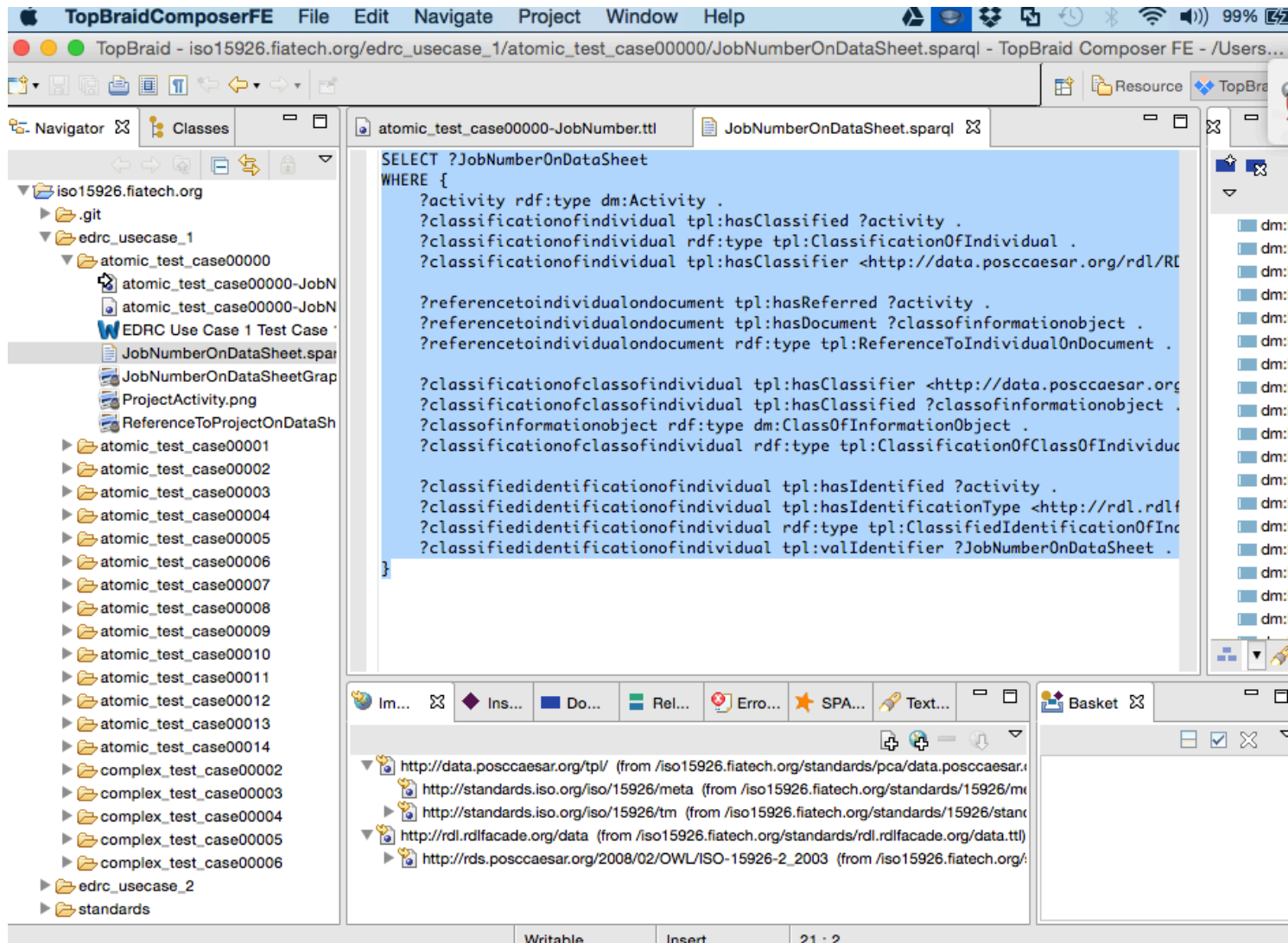
Overview Profile Statistics Form Source Code

I... I... D... R... E... S... T...

Basket

so15926.fi.atech.org/edrc_usecase_1/atomic_test_case00000/JobNumberOnDataSheet.sparql

Select All (cntl-a) and Copy (cntl-c) in .sparql file



Select .ttl file and Paste (cntl-p) into SPARQL pane

The screenshot displays the TopBraid Composer FE interface. The left sidebar shows a file tree with the following structure:

- iso15926.fiotech.org
 - .git
 - edrc_usecase_1
 - atomic_test_case00000
 - atomic_test_case00000-JobNur
 - atomic_test_case00000-JobNur
 - EDRC Use Case 1 Test Case 1
 - JobNumberOnDataSheet.sparql
 - JobNumberOnDataSheetGraph.
 - ProjectActivity.png
 - ReferenceToProjectOnDataShee
 - atomic_test_case00001
 - atomic_test_case00002
 - atomic_test_case00003
 - atomic_test_case00004
 - atomic_test_case00005
 - atomic_test_case00006
 - atomic_test_case00007
 - atomic_test_case00008
 - atomic_test_case00009
 - atomic_test_case00010
 - atomic_test_case00011
 - atomic_test_case00012
 - atomic_test_case00013
 - atomic_test_case00014
 - complex_test_case00002
 - complex_test_case00003
 - complex_test_case00004
 - complex_test_case00005
 - complex_test_case00006
 - edrc_usecase_2
 - standards
 - test
 - tool_guides

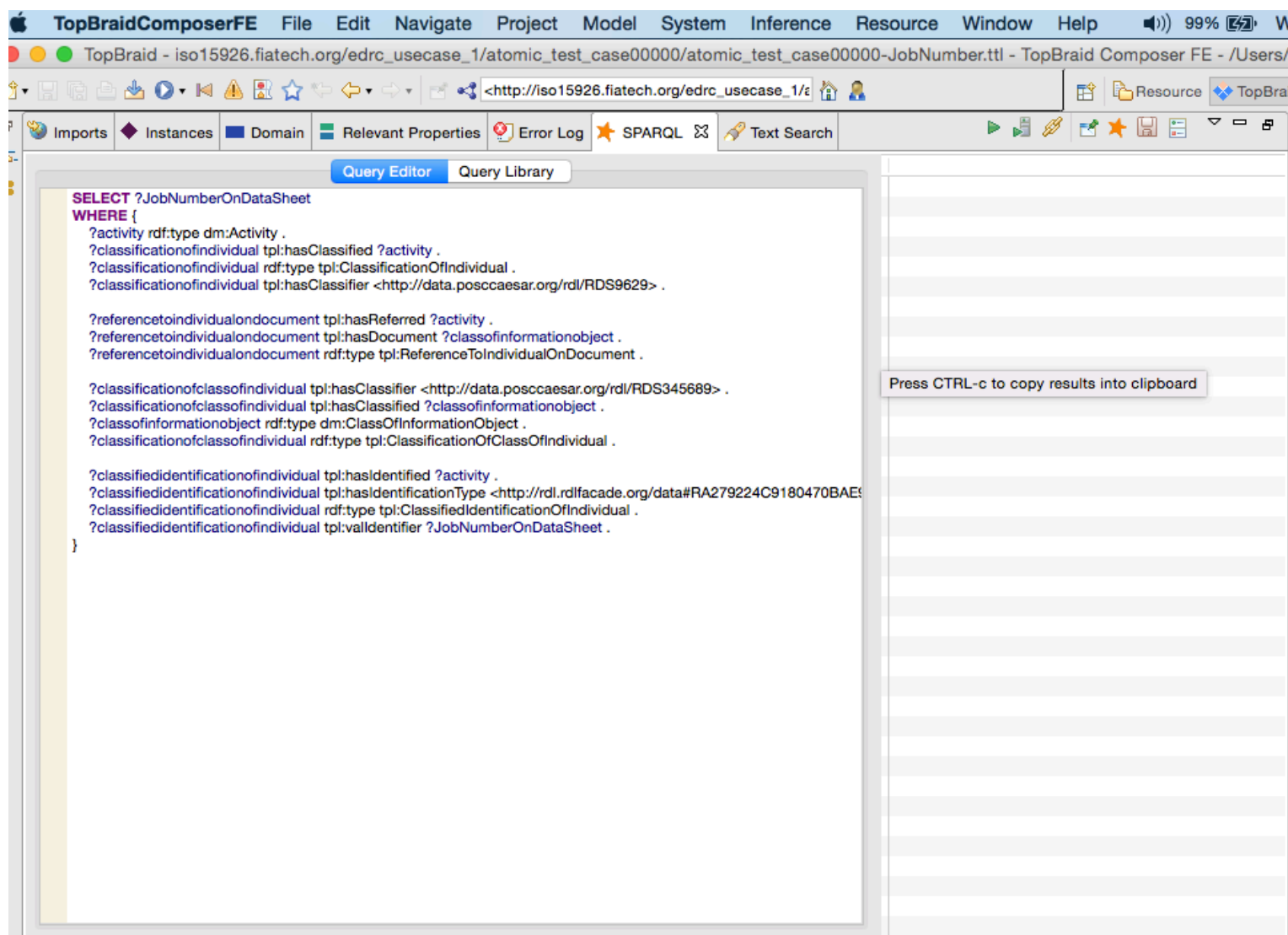
The main panel shows the 'Ontology Overview' for the file 'atomic_test_case00000-JobNumber.ttl'. The 'Base URI (Location)' is http://iso15926.fiotech.org/edrc_usecase_1/atomic_test_case00000-JobNumber. The 'Default Namespace' is empty. The 'Namespace Prefixes' table is as follows:

Prefix	Namespace URI
atc00000	http://iso15926.fiotech.org/edrc_usecase_1/atomic_test_case00000-JobNumber#
dc	http://purl.org/dc/elements/1.1/
dm	http://rds.posccaesar.org/2008/02/OWL/ISO-15926-2_2003#
edm	http://edm.15926.org#
list	http://www.co-ode.org/ontologies/list.owl#
meta	http://standards.iso.org/iso/15926/meta#
owl	http://www.w3.org/2002/07/owl#
owl2xml	http://www.w3.org/2006/12/owl2-xml#

Below the table are links for 'View/Edit ontology annotations', 'View/Edit imported ontologies', and 'Check for namespace conflicts...'. The bottom panel shows the 'Query Editor' with the following SPARQL query:

```
SELECT ?JobNumberOnDataSheet
WHERE {
  ?activity rdf:type dm:Activity .
  ?classificationofindividual tpi:hasClassified ?activity .
  ?classificationofindividual rdf:type tpi:ClassificationOfIndividual .
  ?classificationofindividual tpi:hasClassifier <http://data.posccaesar.org/rdl/RDS962>
```

Double-click a pane to make it full screen,
and again to return to smaller view



Press the Green Arrow to run the query and see results

The screenshot shows the TopBraidComposerFE application window. The title bar reads "TopBraidComposerFE" and the menu bar includes "File", "Edit", "Navigate", "Project", "Model", "System", "Inference", "Resource", "Window", and "Help". The address bar shows the URL "http://iso15926.fiotech.org/edrc_usecase_1/atomic_test_case00000/atomic_test_case00000-JobNumber". The toolbar contains icons for "Imports", "Instances", "Domain", "Relevant Properties", "Error Log", "SPARQL", and "Text Search". The "Query Editor" tab is active, displaying a SPARQL query. The query is as follows:

```
SELECT ?JobNumberOnDataSheet
WHERE {
  ?activity rdf:type dm:Activity .
  ?classificationofindividual tpl:hasClassified ?activity .
  ?classificationofindividual rdf:type tpl:ClassificationOfIndividual .
  ?classificationofindividual tpl:hasClassifier <http://data.posccaesar.org/rdl/RDS9629> .

  ?referencetoindividualondocument tpl:hasReferred ?activity .
  ?referencetoindividualondocument tpl:hasDocument ?classofinformationobject .
  ?referencetoindividualondocument rdf:type tpl:ReferenceToIndividualOnDocument .

  ?classificationofclassofindividual tpl:hasClassifier <http://data.posccaesar.org/rdl/RDS345689> .
  ?classificationofclassofindividual tpl:hasClassified ?classofinformationobject .
  ?classofinformationobject rdf:type dm:ClassOfInformationObject .
  ?classificationofclassofindividual rdf:type tpl:ClassificationOfClassOfIndividual .

  ?classifiedidentificationofindividual tpl:hasIdentified ?activity .
  ?classifiedidentificationofindividual tpl:hasIdentificationType <http://rdl.rdfacade.org/data#RA279224C9180470BAE> .
  ?classifiedidentificationofindividual rdf:type tpl:ClassifiedIdentificationOfIndividual .
  ?classifiedidentificationofindividual tpl:valIdentifier ?JobNumberOnDataSheet .
}
```

On the right side of the interface, the "Query results" panel is visible, showing a table with the following data:

[JobNumberOnDataSheet]
JN-1213A

Two callout boxes are present: one pointing to the green arrow icon in the toolbar labeled "Green Arrow", and another pointing to the "Query results" panel labeled "Query results".

Select a Class and see list of Instances in pane below

Class

Instances Pane

The screenshot displays the TopBraid Composer FE interface. The left pane shows a tree of classes, with 'dm:Thing (8)' selected. The main pane shows the 'Class Form' for 'dm:Thing', including annotations and class axioms. The bottom pane shows the 'Instances' tab, which lists instances of the selected class.

[Resource]	rdf:type	rdfs:label	rdfs:comment
atc00000:ClassOfIndividual_1	dm:ClassOfInformationObject	Define Document (Classification...	EDRC Use Case 1 Section 6.1.1...
atc00000:PossibleIndividual_2	dm:Activity	Define Project Activity	EDRC Use Case 1 Section 6.1.1...
rdlfacade:CYCLE_PER_DAY	dm:Scale	Cycle Per Day Scale	EDRC Use Case 1 Section 7.2.14...
rdlfacade:Classification_1	dm:Classification	Cycle Per Day a FREQUENCY S...	EDRC Use Case 1 Section 7.2.14...
rdlfacade:PROCESS_VARIATI...	dm:ClassOfClassOfDescription	PROCESS VARIATIONS DESCRIP...	EDRC Use Case 1 Section 7.2.10...
rdlfacade:RA279224C918047...	dm:ClassOfClassOfIdentification	PROJECT IDENTIFICATION CODE	EDRC Use Case 1 Section 6.1.1...
rdlfacade:REVISION_CODE_...	dm:ClassOfClassOfIdentification	REVISION CODE ASSIGNMENT...	EDRC Use Case 1 Section 6.1.3...
rdlfacade:STARTING_CONDI...	dm:ClassOfClassOfDescription	STARTING CONDITIONS DESCR...	EDRC Use Case 1 Section 7.2.11...

Double click on an instance to view

The screenshot displays the TopBraid Composer FE interface. The top menu bar includes File, Edit, Navigate, Project, Model, System, Inference, Resource, Window, and Help. The address bar shows the URL: TopBraid - iso15926.fi.atech.org/edrc_usecase_1/atomic_test_case00000/atomic_test_case00000-JobNumber.ttl - TopBraid Composer FE - /Users. The breadcrumb navigation shows: atc00000:PossibleIndividual_2. The left sidebar contains a Navigator and a Classes tree. The main area is titled 'Resource Form' and shows details for 'atc00000:PossibleIndividual_2'. The 'Annotations' section includes 'rdfs:comment' (EDRC Use Case 1 Section 6.1.1 Define Project Activity (ClassificationOfIndividual)) and 'rdfs:label' (Define Project Activity). The 'Other Properties' section shows 'rdf:type' as 'dm:Activity'. The 'Incoming References' section lists three references: 'tpl:hasClassified' (atc00000:ClassificationOfIndividual_2), 'tpl:hasIdentified' (atc00000:ClassifiedIdentificationOfIndividual_1), and 'tpl:hasReferred' (atc00000:ReferenceToIndividualOnDocument_1). The bottom of the interface features a table with columns: [Resource], rdf:type, rdfs:label, and rdfs:comment. The table lists several instances, including 'atc00000:ClassOfInformationObject', 'atc00000:PossibleIndividual_2', 'rdlfacade:CYCLE_PER_DAY', and 'rdlfacade:Classification_1'.

Classes

- rdfs:Resource (5361)
- owl:AllDisjointClasses (2)
- owl:Thing (2088)
- dm:Thing (8)
- owl:EmptyList
- owl:OWList
- p7tm:Template (178)
- p7tm:TemplateRole
- p7tm:TemplateStatement (873)
- tpl:ActivityCausesBeganIndividual
- tpl:ActivityCausesDeprecatedClass
- tpl:ActivityCausesEffectiveClass
- tpl:ActivityCausesEndedIndividual
- tpl:ActivityCausesStatusedClass
- tpl:ActivityCausesTwoRelatedBeganIndividual
- tpl:ActivityCausesTwoRelatedDeprecatedClass
- tpl:ActivityCausesTwoRelatedEffectiveClasses
- tpl:ActivityCausesTwoRelatedEndedIndividual
- tpl:ActivityCausesTwoRelatedStatusedClasses
- tpl:AggregateOfMonotypeIndividual
- tpl:ApprovalWithStatusOfRelationshipByIndividual
- tpl:ArrangementOfAnIndividual
- tpl:AssemblyOfAnIndividual
- tpl:BeginningOfIndividualAtClassifiedEvent
- tpl:ClassificationOfClassOfIndividual (1)
- tpl:ClassificationOfClassOfIndividualApplicable
- tpl:ClassificationOfIndividual (1)
- tpl:ClassificationOfIndividualWithBiologicalMaterial
- tpl:ClassificationOfIndividualWithCompositeMaterial

Resource Form

Name: atc00000:PossibleIndividual_2

Annotations

rdfs:comment
EDRC Use Case 1 Section 6.1.1 Define Project Activity (ClassificationOfIndividual)

rdfs:label
Define Project Activity

Other Properties

rdf:type
dm:Activity

Incoming References

← tpl:hasClassified
atc00000:ClassificationOfIndividual_2

← tpl:hasIdentified
atc00000:ClassifiedIdentificationOfIndividual_1

← tpl:hasReferred
atc00000:ReferenceToIndividualOnDocument_1

Form Source Code

Imports **Instances** **Domain** **Relevant Properties** **Error Log** **SPARQL** **Text Search**

[Resource]	rdf:type	rdfs:label	rdfs:comment
atc00000:ClassOfIndividual_1	dm:ClassOfInformationObject	Define Document (Classification...	EDRC Use Case 1
atc00000:PossibleIndividual_2	dm:Activity	Define Project Activity	EDRC Use Case 1
rdlfacade:CYCLE_PER_DAY	dm:Scale	Cycle Per Day Scale	EDRC Use Case 1
rdlfacade:Classification_1	dm:Classification	Cycle Per Day a FREQUENCY S...	EDRC Use Case 1

Can follow links, hold down cntl and URIs become active

The screenshot displays the TopBraid Composer FE interface. The browser window title is "TopBraid - iso15926.fiatech.org/edrc_usecase_1/atomic_test_case00000/atomic_test_case00000-JobNumber.ttl - TopBraid Comp". The address bar shows the URI "atc00000:PossibleIndividual_2". The interface includes a menu bar (File, Edit, Navigate, Project, Model, System, Inference, Resource, Window, Help) and a toolbar. A left sidebar contains a "Navigator" pane with a tree view of classes:

- rdfs:Resource (5361)
 - owl:AllDisjointClasses (2)
 - owl:Thing (2088)
 - dm:Thing (8)
 - owl:EmptyList
 - owl:OWList
 - p7tm:Template (178)
 - p7tm:TemplateRole
 - p7tm:TemplateStatement (873)
 - tpl:ActivityCausesBeganIndividual
 - tpl:ActivityCausesDeprecatedClass
 - tpl:ActivityCausesEffectiveClass
 - tpl:ActivityCausesEndedIndividual
 - tpl:ActivityCausesStatusedClass
 - tpl:ActivityCausesTwoRelatedBeganIndividual
 - tpl:ActivityCausesTwoRelatedDeprecatedClas
 - tpl:ActivityCausesTwoRelatedEffectiveClasses
 - tpl:ActivityCausesTwoRelatedEndedIndividual
 - tpl:ActivityCausesTwoRelatedStatusedClasse
 - tpl:AggregateOfMonotypeIndividual
 - tpl:ApprovalWithStatusOfRelationshipByIndivi

The main area shows the "Resource Form" for "atc00000:PossibleIndividual_2". It includes sections for "Annotations", "Other Properties", and "Incoming References". A tooltip is visible over the "Incoming References" section, indicating that holding down the Ctrl key makes the URIs active for navigation.

Resource Form

Name: atc00000:PossibleIndividual_2

Annotations

- rdfs:comment: EDRC Use Case 1 Section 6.1.1 Define Project Activity (ClassificationOfIndividual)
- rdfs:label: Define Project Activity

Other Properties

- rdf:type: dm:Activity

Incoming References

- tpl:hasClassified: atc00000:ClassificationOfIndividual_2
- tpl:hasIdentified: atc00000:ClassifiedIdentifi (Type: tpl:ClassificationOfIndividual, Label: Define Project Activity, (Hold CTRL to navigate))
- tpl:hasReferred: atc00000:ReferenceToIndividualOnDocument_1

Can also open linked instances in sub-form (hover over diamond for + and -)

The screenshot displays the TopBraidComposerFE application window. The title bar indicates the file path: `TopBraid - iso15926.fi.atech.org/edrc_usecase_1/atomic_test_case00000/atomic_test_case00000-JobNumber.ttl - TopBraid Composer FE - /U`. The address bar shows the URI: `atc00000:PossibleIndividual_2`. The interface is divided into three main sections:

- Navigator:** A tree view on the left showing the ontology structure. It includes categories like `rdfs:Resource` (5361), `owl:AllDisjointClasses` (2), `owl:Thing` (2088), and `dm:Thing` (8). Under `dm:Thing`, there are several subclasses, including `owl:EmptyList`, `owl:OWList`, `p7tm:Template` (178), `p7tm:TemplateRole`, and `p7tm:TemplateStatement` (873). The `p7tm:TemplateStatement` category is expanded, showing various template statements like `tpl:ActivityCausesBeganIndividual`, `tpl:ActivityCausesDeprecatedClass`, `tpl:ActivityCausesEffectiveClass`, `tpl:ActivityCausesEndedIndividual`, `tpl:ActivityCausesStatusedClass`, `tpl:ActivityCausesTwoRelatedBeganIndividual`, `tpl:ActivityCausesTwoRelatedDeprecatedClass`, `tpl:ActivityCausesTwoRelatedEffectiveClasses`, `tpl:ActivityCausesTwoRelatedEndedIndividual`, `tpl:ActivityCausesTwoRelatedStatusedClass`, `tpl:AggregateOfMonotypeIndividual`, `tpl:ApprovalWithStatusOfRelationshipByIndivi`, `tpl:ArrangementOfAnIndividual`, `tpl:AssemblyOfAnIndividual`, `tpl:BeginningOfIndividualAtClassifiedEvent`, `tpl:ClassificationOfClassOfIndividual` (1), `tpl:ClassificationOfClassOfIndividualApplicabl`, `tpl:ClassificationOfIndividual` (1), `tpl:ClassificationOfIndividualWithBiologicalMa`, and `tpl:ClassificationOfIndividualWithCompositeM`.
- Resource Form:** The main area on the right displays the details for the selected resource. It includes fields for `Name` (set to `atc00000:PossibleIndividual_2`), `Annotations` (including `rdfs:comment` and `rdfs:label`), `Other Properties` (including `rdf:type` set to `dm:Activity`), and `Incoming References`. The `Incoming References` section shows a reference from `tpl:hasClassified` to `atc00000:ClassificationOfIndividual_2`, which is further detailed with its own `rdfs:label`, `rdf:type`, `tpl:hasClassified`, `tpl:hasClassifier`, and `rdfs:comment`.
- JobNumberOnDataSheet.sparql:** A tab at the top right showing the SPARQL query used to retrieve the data.

W3C RDF Shape Constraint Language (SHACL)

- RDF Data Shapes Working Group
 - http://www.w3.org/2014/data-shapes/wiki/Main_Page
- Editor draft
 - <https://w3c.github.io/data-shapes/shacl/>
- Tutorial
 - <http://www.topquadrant.com/technology/shacl/tutorial/>

Review TopBraid 5.0 experimental SHACL support : shacl_job_number.ttl

The screenshot displays the TopBraidComposerFE interface. The top menu bar includes File, Edit, Navigate, Model, System, Inference, Resource, Window, and Help. The title bar shows the file path: TopBraid - iso15926.fi.atech.org/test/constraints/shacl_job_number.ttl - TopBraid Composer FE - /Users/DavidPrice/Workspace500Free-SmallProjects. The main window is divided into three panes. The left pane, titled 'Navigator', shows a tree of classes and instances, with 'dm:Activity' selected. The middle pane, titled 'Classes', shows a list of classes and instances, with 'dm:Activity' selected. The right pane, titled 'shacl_job_number.ttl', shows the SHACL constraints for 'dm:Activity'. The constraints are defined in a SPARQL query and include a 'Check full path Activity to Datasheet' constraint. The query is as follows:

```
sh:sparql
# Check full path Activity to Datasheet
SELECT ?this
WHERE {
  ?classificationofindividual tpi:hasClassified ?this .
  ?classificationofindividual a tpi:ClassificationOfIndividual .
  ?classificationofindividual tpi:hasClassifier <http://data.posccaesar.org/rdl/RDS9629> .
  ?classifiedidentificationofindividual tpi:hasIdentified ?this .
  ?classifiedidentificationofindividual tpi:hasIdentificationType rdlfacade:RA279224C9180470BAE922CFCBA21A78F .
  ?classifiedidentificationofindividual a tpi:ClassifiedIdentificationOfIndividual .
  ?classifiedidentificationofindividual tpi:valIdentifier ?JobNumberOnDataSheet .
  NOT EXISTS {
    ?referencetoindividualondocument tpi:hasReferred ?this .
    ?referencetoindividualondocument tpi:hasDocument ?classofinformationobject .
    ?referencetoindividualondocument a tpi:ReferenceToIndividualOnDocument .
    ?classificationofclassofindividual tpi:hasClassifier <http://data.posccaesar.org/rdl/RDS250334> .
    ?classificationofclassofindividual tpi:hasClassified ?classofinformationobject .
    ?classofinformationobject a dm:ClassOfInformationObject .
    ?classificationofclassofindividual a tpi:ClassificationOfClassOfIndividual .
  } .
}
```

The right pane also shows a 'Check full path Activity to Datasheet' constraint and a message: 'Activity representing Project (RDS9629) with Project Identification Code (PROJECT_IDENTIFICATION_CODE) not on a Data Sheet (RDS250334)'.

Run SHACL over negative test case :

TEST_atomic_test_case00000-JobNumberNegative-shacl.ttl

The screenshot displays the TopBraid Composer FE interface. The left sidebar shows a project tree with folders like 'iso15926.fiotech.org', 'standards', 'test', and 'negative'. The file 'TEST_atomic_test_case00000-JobNumberNegative-shacl.ttl' is selected under the 'negative' folder. The main panel shows the 'Ontology Overview' for this file. A callout box labeled 'SHACL pane' points to the 'SHA...' button in the bottom toolbar. The 'Namespace Prefixes' table lists various prefixes and their URIs.

Ontology Overview

Base URI (Location): http://iso15926.fiotech.org/test/execution/TEST_atomic_test_case00000-JobNumberNegative-shacl.ttl

Default Namespace:

Namespace Prefixes

Specify the prefixes of the namespaces that are used in this model.

Prefix	URI
atc0000	http://iso15926.fiotech.org/edrc_usecase_1/atomic_test_case00000-Jo...
dc	http://purl.org/dc/terms/1.1/
dm	http://rds.posccaesar.org/2008/02/OWL/ISO-15926-2_2003#
edm	http://edm.15926.org/
list	http://www.co-ode.org/ontologies/list.owl#
meta	http://standards.iso.org/iso/15926-2/meta#
owl	http://www.w3.org/2002/07/owl#
owl2xml	http://www.w3.org/2006/12/owl2-xml#

[View/Edit ontology annotations](#) [View/Edit supported ontologies](#)
[Check for namespace conflicts...](#)

SHACL pane

Overview Profile Statistics Form Source Code

Imp... Inst... Dom... Rele... Erro... SPA... Text... SHA...

http://iso15926.fiotech.org/edrc_usecase_1/atomic_test_case00000-JobNumberNegative (owl:imports from...)
http://data.posccaesar.org/tp/ (owl:imports from /iso15926.fiotech.org/standards/pca/data.posccaesar.o...)
http://rdl.rdlfacade.org/data (owl:imports from /iso15926.fiotech.org/standards/rdl.rdlfacade.org/data.ttl)
http://iso15926.fiotech.org/test/constraints/shacl job number (owl:imports from /iso15926.fiotech.org/test/c...

Run SHACL example over negative test case

The screenshot displays the TopBraid Composer FE interface. The main window shows the 'Resource Form' for the resource 'atc00000:PossibleIndividual_2'. The 'Annotations' section lists 'EDRC Use Case 1 Section 6.1.1 Define Project Activity (ClassificationOfIndividual)' and 'Define Project Activity'. The 'Other Properties' section shows 'dm:Activity'. The 'Properties' panel on the right lists various properties like 'dm:hasApproved', 'dm:hasApprover', etc. A callout box points to the 'Green Arrow Button' in the bottom right corner, stating 'Green Arrow Button means Go'. Another callout box points to the 'SHACL Constraint Violations (experimental)' tab, stating 'Constraint Violations reported here'. The bottom status bar indicates 'Constraint checking took 4921 ms to find 1 violations'.

TopBraidComposerFE File Edit Navigate Model System Inference Resource Window Help 99% Tue 11 Aug 15:51 David Price

TopBraid - iso15926.fi.atech.org/test/execution/TEST_atomic_test_case00000-JobNumberNegative-shacl.ttl - TopBraid Composer FE - /Users/DavidPrice/Workspace500Free-SmallProjects

atc00000:PossibleIndividual_2

Resource Form

Name: atc00000:PossibleIndividual_2

Annotations

rdfs:comment

EDRC Use Case 1 Section 6.1.1 Define Project Activity (ClassificationOfIndividual)

rdfs:label

Define Project Activity

Other Properties

dm:hasRecordCreator

dm:hasRecordLogically

dm:hasWhyDeleted

rdf:type

dm:Activity

Form Source Code

Properties

dm:hasApproved

dm:hasApprover

dm:hasCardinalities

dm:hasCaused

dm:hasCauser

dm:hasClassified

dm:hasClassifier

dm:hasClassOfApproved

dm:hasClassOfApprover

dm:hasClassOfBegun

dm:hasClassOfCauser

dm:hasClassOfClassified

dm:hasClassOfClassifier

dm:hasClassOfClassOfControlled

dm:hasClassOfClassOfPart

dm:hasClassOfClassOfUsed

dm:hasClassOfClassOfWhole

dm:hasClassOfConnection

dm:hasClassOfControlled

dm:hasClassOfDimension

dm:hasClassOfEnd1

dm:hasClassOfEnd2

Imports Instances Domain Relevant Properties Error Log SPARQL Text Search SHACL Constraint Violations (experimental)

Message Root Subject Predicate Object

Activity representing Project (RDS9629... atc00000:PossibleIndi...

Constraint checking took 4921 ms to find 1 violations

Green Arrow Button means Go

Constraint Violations reported here

Performs constraint checking for all resources in the model, including classes

The End