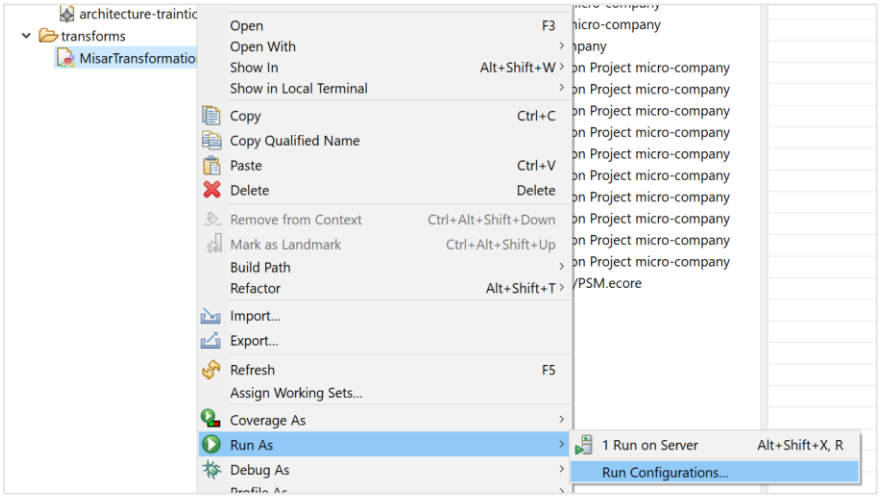
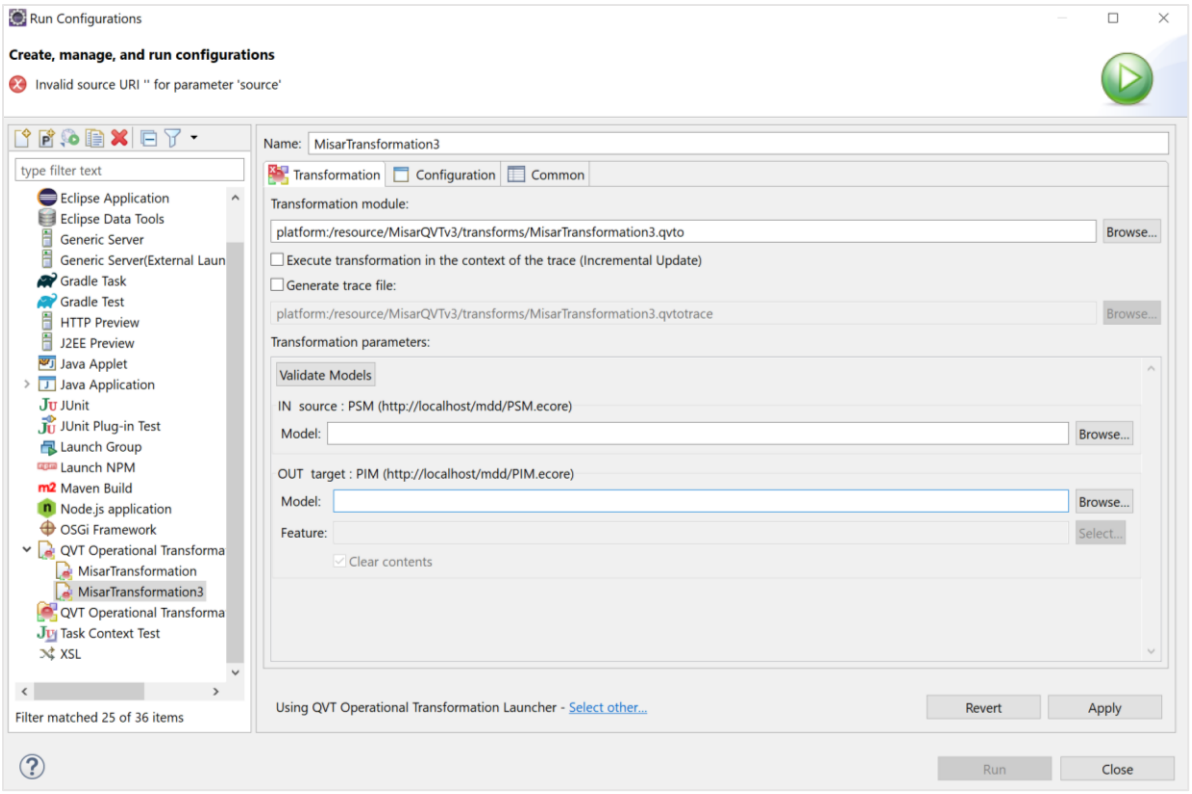
Manual For Recovering an Architectural Model in MiSAR

Functionality: This manual gives guidelines to follow to create a MiSAR PIM instance from an existing microservice system. The MiSAR PIM instance generated is the recovered MiSAR architectural model in Ecore format.

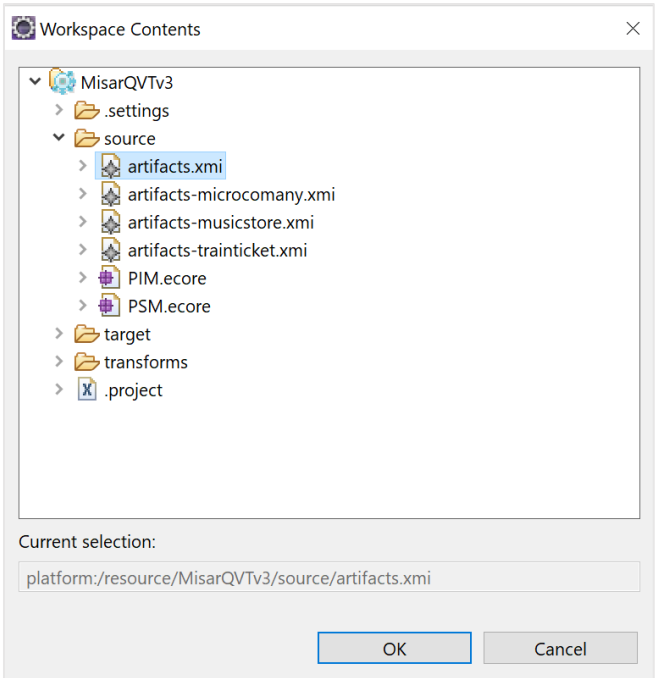
User Guidelines

1. Download the ***MiSARQVTv3.zip*** found at https://github.com/MicroServiceArchitectureRecovery/MiSAR-Parser-and-Model-Transformation/tree/main/QVT%20Operational and unzip it.
2. If not yet installed, install ***Eclipse QVT Operational*** project in ***Eclipse IDE*** by following the guidelines in Eclipse QVT Operational - installation.pdf
3. If not yet configured, configure ***QVT Settings*** in ***MiSARQVTv3*** project by following the guidelines in Eclipse QVT Operational - configuration.pdf
4. Now you can create a ***PSM instance***. Please follow the guidelines in MiSAR Parser - manual.pdf to create a PSM instance from an existing microservice project. This PSM instance will be necessary to be used to create the PIM architecture.
5. Right click **./transforms/*MisarTransformation3.qvto*** file then ***Run File*** -> ***Run Configurations…***

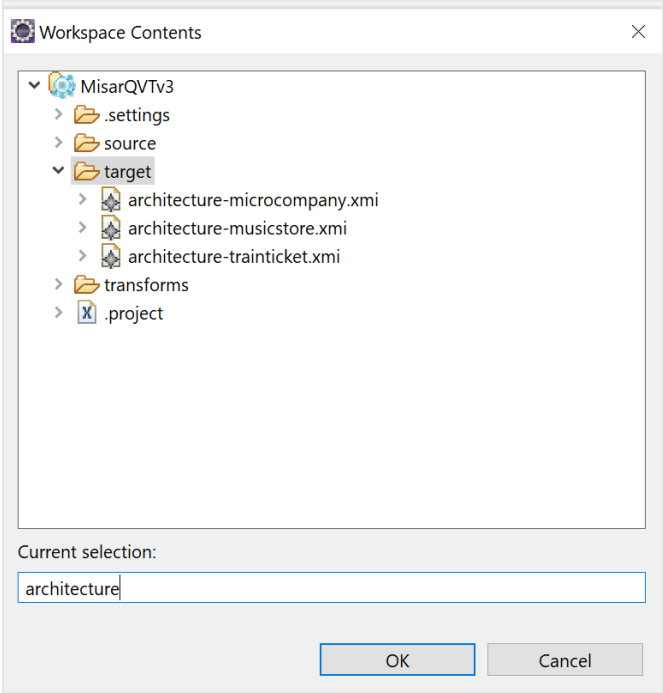




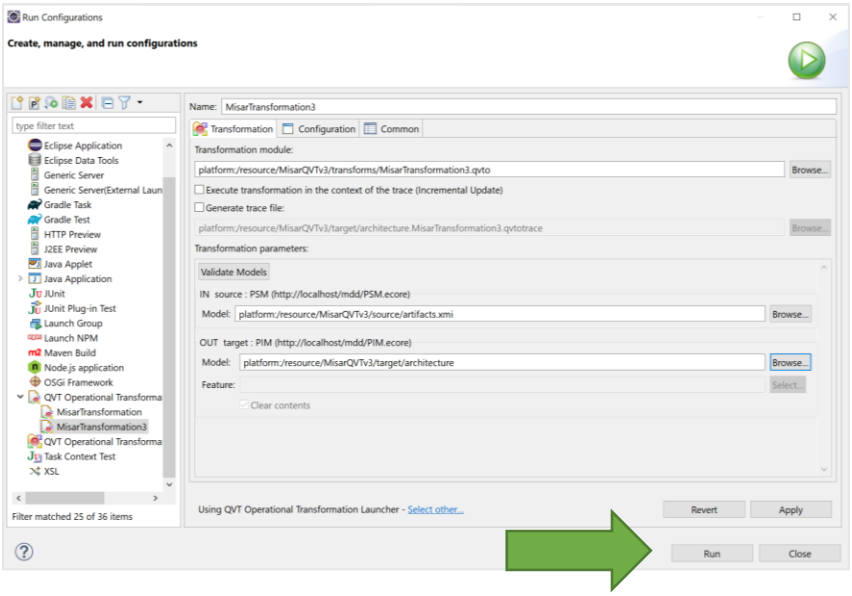
6. At ***IN source - PSM*** field, browse the PSM instance file to be transformed (e.g. ***artifacts.xmi***) then click on ***OK***



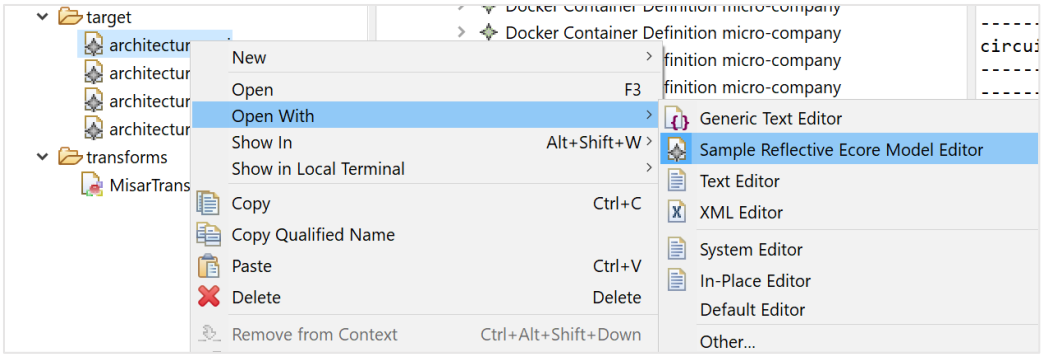
7. At ***OUT target - PIM*** field, browse to the folder where to save the output PIM instance file (e.g. ***./target/***) and type in the file name (e.g. ***architecture.xmi***) then click on ***OK***

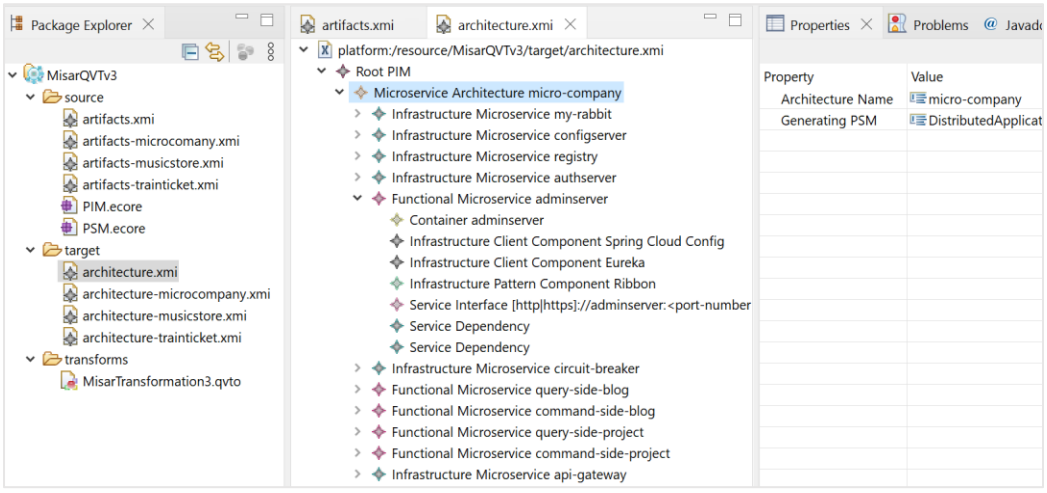


8. Click **Run**



9. To open the PIM instance file in tree-view, right click the ***architecture.xmi*** file then ***Open With*** -> ***Sample Reflective Ecore Model Editor***


target
architectur
architectur
architectur
architectur
transforms
MisarTrans
Docker Container Definition micro-company
finition micro-company
finition micro-company
New
Open F3
Open With
Show In Alt+Shift+W
Show in Local Terminal
Copy Ctrl+C
Copy Qualified Name
Paste Ctrl+V
Delete Delete
Remove from Context Ctrl+Alt+Shift+Down
Generic Text Editor
Sample Reflective Ecore Model Editor
Text Editor
XML Editor
System Editor
In-Place Editor
Default Editor
Other...


Package Explorer
MisarQVTv3
source
artifacts.xmi
artifacts-microcomany.xmi
artifacts-musicstore.xmi
artifacts-trainticket.xmi
PIM.ecore
PSM.ecore
target
architecture.xmi
architecture-microcompany.xmi
architecture-musicstore.xmi
architecture-trainticket.xmi
transforms
MisarTransformation3.qvto
artifacts.xmi
architecture.xmi
platform:/resource/MisarQVTv3/target/architecture.xmi
Root PIM
Microservice Architecture micro-company
Infrastructure Microservice my-rabbit
Infrastructure Microservice configserver
Infrastructure Microservice registry
Infrastructure Microservice authserver
Functional Microservice adminserver
Container adminserver
Infrastructure Client Component Spring Cloud Config
Infrastructure Client Component Eureka
Infrastructure Pattern Component Ribbon
Service Interface [http|https]://adminserver:<port-number
Service Dependency
Service Dependency
Infrastructure Microservice circuit-breaker
Functional Microservice query-side-blog
Functional Microservice command-side-blog
Functional Microservice query-side-project
Functional Microservice command-side-project
Infrastructure Microservice api-gateway
Properties
Problems
Property
Value
Architecture Name
micro-company
Generating PSM
DistributedApplicat