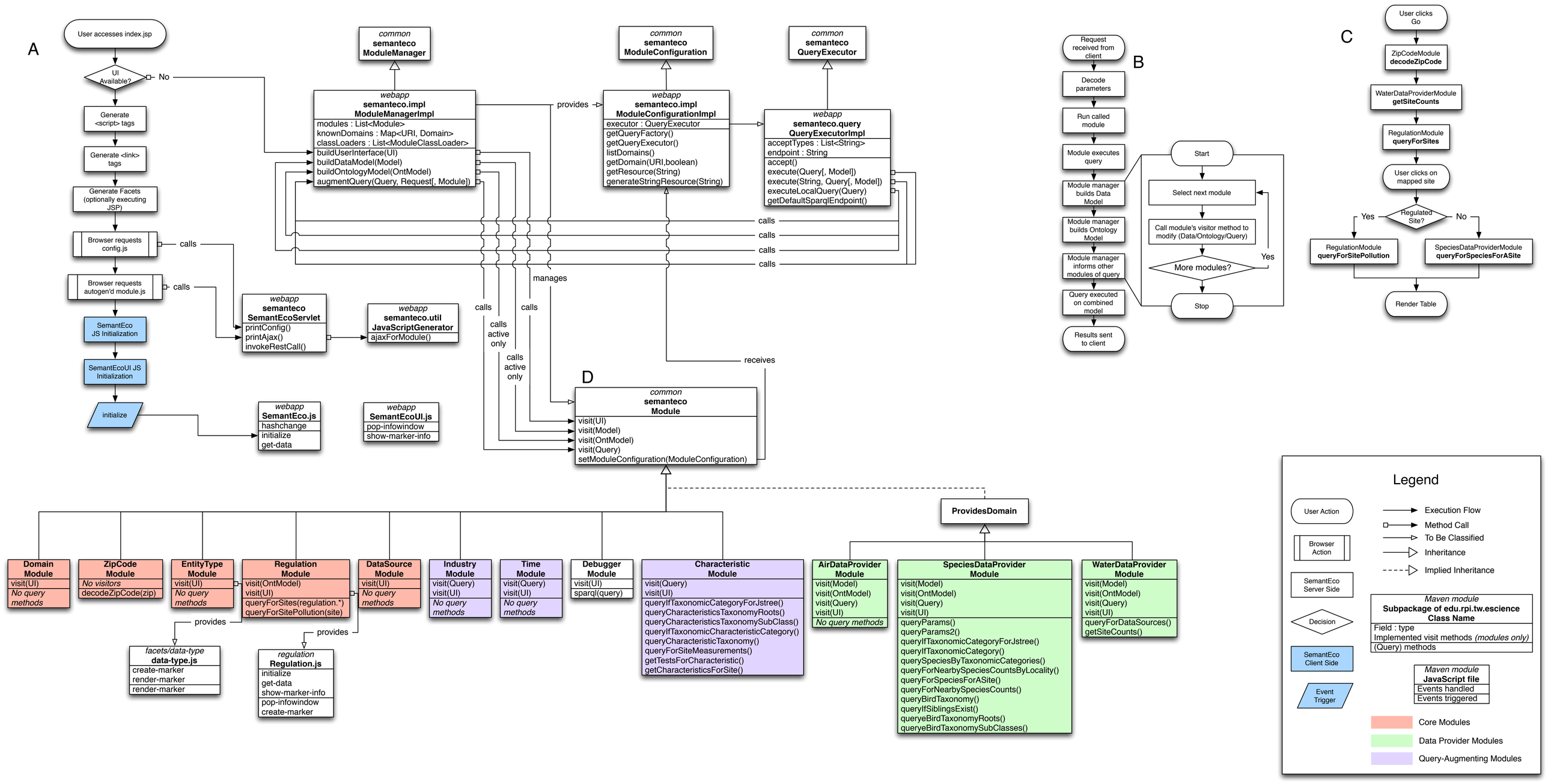
A
User accesses index.jsp
UI Available?
No
Generate <script> tags
Generate <link> tags
Generate Facets (optionally executing JSP)
Browser requests config.js
calls
Browser requests autogen'd module.js
calls
SemantEco JS Initialization
SemantEcoUI JS Initialization
initialize
webapp semanteco SemantEco.js
hashchange
initialize
get-data
webapp semanteco SemantEcoUI.js
pop-infowindow
show-marker-info
common semanteco ModuleManager
webapp semanteco.impl ModuleManagerImpl
modules : List<Module>
knownDomains : Map<URI, Domain>
classLoaders : List<ModuleClassLoader>
buildUserInterface(UI)
buildDataModel(Model)
buildOntologyModel(OntModel)
augmentQuery(Query, Request[, Module])
provides
common semanteco ModuleConfiguration
webapp semanteco.impl ModuleConfigurationImpl
executor : QueryExecutor
getQueryFactory()
getQueryExecutor()
listDomains()
getDomain(URI,boolean)
getResource(String)
generateStringResource(String)
common semanteco QueryExecutor
webapp semanteco.query QueryExecutorImpl
acceptTypes : List<String>
endpoint : String
accept()
execute(Query[, Model])
execute(String, Query[, Model])
executeLocalQuery(Query)
getDefaultSparqlEndpoint()
calls
calls
calls
calls
webapp semanteco SemantEcoServlet
printConfig()
printAjax()
invokeRestCall()
webapp semanteco.util JavaScriptGenerator
ajaxForModule()
calls
calls active only
calls
calls active only
manages
receives
D
common semanteco Module
visit(UI)
visit(Model)
visit(OntModel)
visit(Query)
setModuleConfiguration(ModuleConfiguration)
Domain Module
visit(UI)
No query methods
ZipCode Module
No visitors
decodeZipCode(zip)
EntityType Module
visit(UI)
No query methods
Regulation Module
visit(OntModel)
visit(UI)
queryForSites(regulation.*)
queryForSitePollution(site)
DataSource Module
visit(UI)
No query methods
Industry Module
visit(Query)
visit(UI)
No query methods
Time Module
visit(Query)
visit(UI)
No query methods
Debugger Module
visit(UI)
sparql(query)
Characteristic Module
visit(Query)
visit(UI)
queryIfTaxonomicCategoryForJstree()
queryCharacteristicsTaxonomyRoots()
queryCharacteristicsTaxonomySubClass()
queryIfTaxonomicCharacteristicCategory()
queryCharacteristicTaxonomy()
queryForSiteMeasurements()
getTestsForCharacteristic()
getCharacteristicsForSite()
provides
facets/data-type data-type.js
create-marker
render-marker
render-marker
provides
regulation Regulation.js
initialize
get-data
show-marker-info
pop-infowindow
create-marker
ProvidesDomain
AirDataProvider Module
visit(Model)
visit(OntModel)
visit(Query)
visit(UI)
No query methods
SpeciesDataProvider Module
visit(Model)
visit(OntModel)
visit(Query)
visit(UI)
queryParams()
queryParams2()
queryIfTaxonomicCategoryForJstree()
queryIfTaxonomicCategory()
querySpeciesByTaxonomicCategories()
queryForNearbySpeciesCountsByLocality()
queryForSpeciesForASite()
queryForNearbySpeciesCounts()
queryBirdTaxonomy()
queryIfSiblingsExist()
queryeBirdTaxonomyRoots()
queryeBirdTaxonomySubClasses()
WaterDataProvider Module
visit(Model)
visit(OntModel)
visit(Query)
visit(UI)
queryForDataSources()
getSiteCounts()
B
Request received from client
Decode parameters
Run called module
Module executes query
Module manager builds Data Model
Module manager builds Ontology Model
Module manager informs other modules of query
Query executed on combined model
Results sent to client
Start
Select next module
Call module's visitor method to modify (Data/Ontology/Query)
More modules?
Yes
Stop
C
User clicks Go
ZipCodeModule decodeZipCode
WaterDataProviderModule getSiteCounts
RegulationModule queryForSites
User clicks on mapped site
Regulated Site?
Yes
No
RegulationModule queryForSitePollution
SpeciesDataProviderModule queryForSpeciesForASite
Render Table
Legend
User Action
Browser Action
SemantEco Server Side
Decision
SemantEco Client Side
Event Trigger
Execution Flow
Method Call
To Be Classified
Inheritance
Implied Inheritance
Maven module
Subpackage of edu.rpi.tw.escience
Class Name
Field : type
Implemented visit methods (modules only)
(Query) methods
Maven module
JavaScript file
Events handled
Events triggered
Core Modules
Data Provider Modules
Query-Augmenting Modules