Jersey + Swagger

RESTful API in AEM

Goals and References

JAX-RS Server https://jax-rs-spec.java.net/
Jackson JSON-POJO mapper: https://github.com/FasterXML/jackson
Swagger yaml/json definition http://petstore.swagger.io/v2/swagger.json
Swagger UI visual forms http://petstore.swagger.io/

```java
@POST
@Path("/withdrawal")
@Consumes("text/plain")
@Produces("application/json")
public Money withdraw(
        @PathParam("card") String card,
        @QueryParam("pin") String pin,
        String amount) {
    return getMoney(card, pin, amount);
}
}
```

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Dependencies

```xml
<dependency>
   <groupId>com.eclipsesource.jaxrs</groupId>
   <artifactId>jersey-all</artifactId>
</dependency>

<dependency>
   <groupId>com.eclipsesource.jaxrs</groupId>
   <artifactId>publisher</artifactId>
</dependency>

<dependency>
   <groupId>com.fasterxml.jackson.jaxrs</groupId>
   <artifactId>jackson-jaxrs-json-provider</artifactId>
</dependency>

<dependency>
   <groupId>com.eclipsesource.jaxrs</groupId>
   <artifactId>swagger-all</artifactId>
</dependency>
```
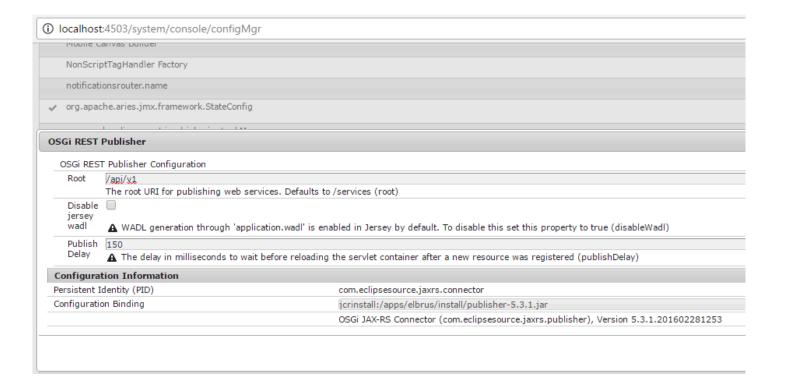
Bundles

```
<embedded>
   <groupId>com.eclipsesource.jaxrs</groupId>
   <artifactId>jersey-all</artifactId>
   <target>${install.path}</target>
</embedded>
<embedded>
   <groupId>com.eclipsesource.jaxrs</groupId>
   <artifactId>swagger-all</artifactId>
   <target>${install.path}</target>
</embedded>
<embedded>
   <groupId>com.eclipsesource.jaxrs</groupId>
   <artifactId>publisher</artifactId>
   <target>${install.path}</target>
</embedded>
```

Configuration

localhost:4503/system/console/configMgr

Mobile Canvas Builder

NonScriptTagHandler Factory

notificationsrouter.name

✓ org.apache.aries.jmx.framework.StateConfig

OSGi REST Publisher

OSGi REST Publisher Configuration

Root	/api/v1
	The root URI for publishing web services. Defaults to /services (root)
Disable jersey wadl	☐
	⚠ WADL generation through 'application.wadl' is enabled in Jersey by default. To disable this set this property to true (disableWadl)
Publish Delay	150
	⚠ The delay in milliseconds to wait before reloading the servlet container after a new resource was registered (publishDelay)

Configuration Information

Persistent Identity (PID)	com.eclipsesource.jaxrs.connector
Configuration Binding	jcrinstall:/apps/elbrus/install/publisher-5.3.1.jar
	OSGi JAX-RS Connector (com.eclipsesource.jaxrs.publisher), Version 5.3.1.201602281253

Jersey via Jackson

- Jackson JSON marshaller/parser.
- POJOs with optional annotations.
- Resource classes.

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JSON Provider

```java
@Component
@Service(Object.class)
@Property(name = "javax.ws.rs", boolValue = true)
@Consumes(MediaType.WILDCARD)
@Produces(MediaType.WILDCARD)
@Provider
public class JsonProvider extends JacksonJaxbJsonProvider {}
```

Data model

```java
public class Company {
    private final int id;
    @JsonProperty("company name")
    private final String name;

    public Company(int id, String name) {
        this.id = id;
        this.name = name;
    }
    public int getId() {       return id;    }
    public String getName() {      return name;    }
}
```

Resource class

```java
@Path("/company")
@Consumes(MediaType.APPLICATION_JSON)
@Produces(MediaType.APPLICATION_JSON)
public class CompanyResource {

  @GET
  public List<Company> list() {
     return service.selectNewCompanies();
  }

  @POST
  public int create(Company company) throws NotAuthorizedException {
     return service.createNewCompany(company);
  }
}
```

Swagger

- Resource and operations annotations.
- Model and properties annotations.
- JSON/YAML definition lister.
- Swagger UI.

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Resource and operation annotations

```java
@Api("Company resource")
public class CompanyResource {

    @GET
    @ApiOperation("Returns all companies")
    public List<Company> all() {
        return ImmutableList.of(new Company(1, "Axamit"),
                new Company(2, "Adobe"),
                new Company(3, "Oracle"));
    }
}
```

Model and properties annotations

```java
@ApiModel("Company model")
public class Company {
    @ApiModelProperty("Company ID")
    private final int id;
    @ApiModelProperty("Company Name")
    private final String name;

    public Company(int id, String name) {
        this.id = id;
        this.name = name;
    }

    public int getId() {      return id;    }
    public String getName() {      return name;    }
}
```

Definition lister

```
@Api("Swagger lister")
@SwaggerDefinition(basePath = "/api/v1")
@Component
@Service(Object.class)
@Path("/")
public class SwaggerResource extends ApiListingResource {}
```

Swagger UI

https://github.com/swagger-api/swagger-ui/tree/master/dist -> /etc/designs/elbrus/swagger/

Apache Sling Content Disposition Filter

Request filter adding Content Disposition attachment for certain paths/content types

Content Disposition Paths	
	⚠ These paths are checked by the filter. Each entry is of the form 'path [":" CSV of excluded content types]'. Invalid entries are logged and ignored. (sling.content.disposition.paths)
Content Disposition Excluded Paths	
	⚠ These paths are excluded by the filter. Each entry is of the form 'path'. (sling.content.disposition.excluded.paths)
Enable Content Disposition for all paths	☐
	This flag controls whether to enable Content Disposition for all paths, except for the excluded paths defined by sling.content.disposition.excluded.paths (sling.content.disposition.all.paths)

Configuration Information

Persistent Identity (PID)	org.apache.sling.security.impl.ContentDispositionFilter
Configuration Binding	launchpad:resources/install/5/org.apache.sling.security-1.0.18.jar
	Apache Sling Security (org.apache.sling.security), Version 1.0.18

Questions?

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