Requirements for license management

- Check license on startup
- Support evaluation period
- Restrict functionality per product edition
- Use for headless/RCP/IDE products
- Node-locked
- Floating
Eclipse Passage: open source license management solution
Why Eclipse Passage?

- Open Source (EPL-2.0)
- Offers essential functionality
- Highly customizable
- Modular by design
- Native to Eclipse Platform
- Easy to integrate and operate
Eclipse Passage: example

- Eclipse SDK 4.19
- Eclipse Orbit 2021-09
- Eclipse Passage 2.1.1
<table>
<thead>
<tr>
<th>Name</th>
<th>Verdict</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eclipse Passage Example v.1.0.0.qualifier</td>
<td>Is not covered by a license (405)</td>
</tr>
</tbody>
</table>

Protected by Eclipse Passage. Please visit https://eclipse-passage.github.io/passage-docs/#support
Eclipse Passage: example

Creatures of frog shape
- Ed Bighead
- Jason Funderburker
- Kek of Egypt
- Kermit
- Michigan J. Robin

Creatures of prince shape
- Charming
- Harold
- Naveen

★ Turn to prince
GoodWitch is not properly payed
★ Turn to frog
Passage allows to use EvilWitch
Eclipse Passage: How?
Eclipse Passage: Requirements

MANIFEST.MF

22 Provide-Capability: licensing.feature;licensing.feature="org.eclipse.passage.example.product";name="Eclipse Passage Example";

OSGi Component

```java
package org.eclipse.passage.example.magic.service;

import org.osgi.service.component.annotations.Component;

@Component(property = {
    "licensing.feature.identifier=GoodWitch",
    "licensing.restriction.level=fatal"
})
public final class GoodWitch implements FrogToPrinceMagic {
}
```

```java
package org.eclipse.passage.example.magic.service;

import org.osgi.service.component.annotations.Component;

@Component(property = {
    "licensing.feature.identifier=EvilWitch",
    "licensing.feature.name=Evil Witch",
    "licensing.restriction.level=info",
    "licensing.feature.version=13.4.1",
    "licensing.feature.provider=Universe"
})
public final class EvilWitch implements PrinceToFrogMagic {
}
```
Eclipse Passage: Startup

Add-on

- org.eclipse.e4.core.commands.CommandServiceAddon
- org.eclipse.e4.ui.services.ContextServiceAddon
- org.eclipse.e4.ui.bindings.BindingServiceAddon
- org.eclipse.e4.ui.internal.workbench.addons.CommandProcessor
- org.eclipse.e4.ui.internal.workbench.addons.HandlerProcessor
- org.eclipse.e4.ui.internal.workbench.addons.ContextProcessor
- org.eclipse.e4.ui.workbench.swt.util.BindingProcessingAddon
- org.eclipse.passage.licente.e4.ui.addons.E4LicensingAddon
public boolean magicIsProperlyPayedFor() {
    return new EquinoxPassage().canUse(feature);
}
Eclipse Passage: Seal

```java
@Component
public final class DemoFrameworkSupplier implements FrameworkSupplier {

    private final Framework framework = new DefaultFramework(
            () -> FrameworkUtil.getBundle(DemoFrameworkSupplier.class));

    @Override
    public Optional<Framework> get() {
        return Optional.of(framework);
    }
}
```

```xml
<?xml version="1.0" encoding="UTF-8"?>
<scr:component xmlns:scr="http://www.osgi.org/xmlns/scr/v1.1.0" name="org.eclipse.passage.example.DemoFrameworkSupplier">
    <service>
        <provide interface="org.eclipse.passage.lic.api.FrameworkSupplier"/>
    </service>
    <implementation class="org.eclipse.passage.example.DemoFrameworkSupplier"/>
</scr:component>
```
Eclipse Passage: Use Cases

External Support System
- Process Support Ticket

Server App (LBC)
- Manage User Data
- Request Floating License

Access Cycle (LIC)
- Request Access
- Import License

Operator RCP (LOC)
- Issue License
- Manage Keys
- Define Product

IDE (LDC)
- Declare Constraints
- Implement Features
- Embed Keys

External Change Management
- Process Change Request
Eclipse Passage: Under the Hood
Eclipse Passage: Features
Eclipse Passage: Keys

- **ProductRefRO**
  - identifier: EString
  - version: EString

- **KeyPairRO**
  - algorithm: EString
  - key: EInt
  - pub: EString
  - scr: EString

[1..1] product
Eclipse Passage: Agreements

```
AgreementDescriptor

Agreement
- identifier : EString
- SPDX : EString
- name : EString
- file : EString
- mime : EString

AgreementGroupDescriptor

AgreementGroup
- identifier : EString
- name : EString
- description : EString
```

[0..*] agreements
Eclipse Passage: Users
Eclipse Passage: Licenses
Eclipse Passage: Access Cycle
Eclipse Passage: The Beginning
Project milestones

- 2018-06: idea
- 2018-09: prototype
- 2018-10: proposals
- 2018-12: provisioning
- 2019-01: contribution
- 2019-04: release 0.4.0
- 2019-06: part of SimRel
Eclipse Passage: Growing
The most wanted

- **2020-09: version 1.0.0**
  - stateless and “sealed”
- **2021-06: version 2.0.0**
  - floating license server
- **2021-09: version 2.1.0**
  - license agreement support
  - standalone Java apps
Eclipse Passage: What’s next?
What are we cooking?

- P2 installer integration
  - check before downloading
- Licensing Agent
  - Headless service to be queried
- Eclipse IDE integration
  - validate licensing metadata
- Formulate data-based checks
  - limit the size of user data
Non-Java

- Hardware key
- node.js
  - Theia
  - VS Code
- PostgreSQL extension?
- Rust?
- .NET?
Eclipse Passage: Support
Eclipse Passage: Community

  - Learn more
- [https://github.com/eclipse-passage/passage](https://github.com/eclipse-passage/passage)
  - Submit an issue
  - Contribute a PR
- [https://arsysop.slack.com/](https://arsysop.slack.com/)
  - Ask a question
Professional Support

- We respond fast
  - with exhaustive answers,
  - and code examples.
- We integrate Eclipse Passage into your product
  - customize it for your needs.
- We implement additional features
  - to Licensing Operator,
  - to Floating License Server.

support@arsysop.ru
ArSysOp Cordon

Evaluation:

Production:
Evaluate the Sessions

● Please help by leaving feedback on the sessions you attend!
● To rate a session, you must be registered for it in Swapcard BEFORE the talk starts.
● Swapcard will prompt you to leave feedback after the end of each session.
● You may also rate a talk by locating the session from the “Agenda” or “My Event” buttons on the Event Home page. Click on the session and look for the “Give your feedback” box.
Thank you!

Questions?

https://eclipse-passage.github.io/passage-docs/

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