25/03/2025 - TASKS

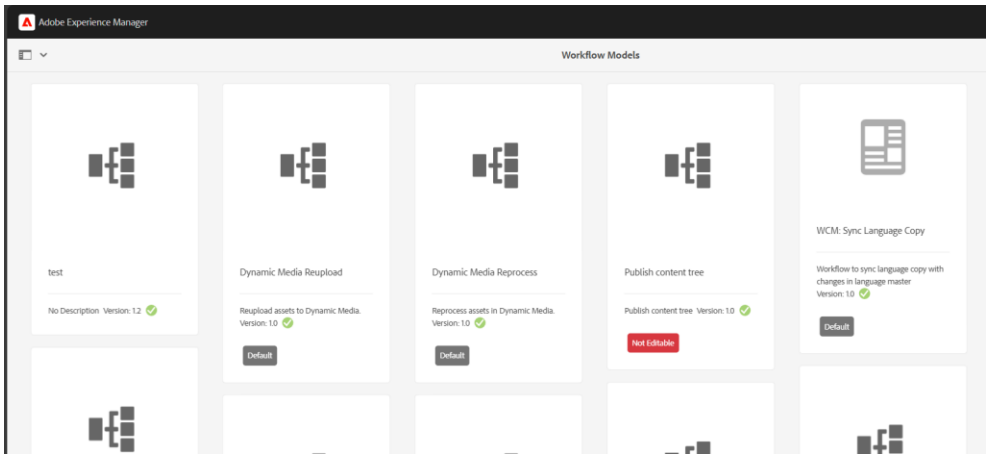
Table of Contents

---

1. Create Custom Workflow Model

Steps:

- **Navigate to the AEM Workflow Console.**
- **Click "Create" and define a new workflow model.**
- **Drag workflow components into the model.**
- **Configure transitions and conditions for each step.**
- **Save, activate, and validate functionality.**



---

2. Create Custom Workflow Process

Steps:

- **Develop a Java class implementing WorkflowProcess.**
- **Write logic inside the execute method.**
- **Register the class as an OSGi component.**
- **Deploy and test the workflow process.**

Example Code:

```
@Component(service = WorkflowProcess.class, property = {"process.label=Custom Workflow"})
public class CustomWorkflowProcess implements WorkflowProcess {
    @Override
    public void execute(WorkItem item, WorkflowSession session, MetaDataMap metaData) throws WorkflowException {
        String payload = (String) item.getWorkflowData().getPayload();
        System.out.println("Processing: " + payload);
    }
}
```

---

3. Create Event Handler

Steps:

- **Implement EventHandler interface in Java.**
- **Register event topics in the OSGi component.**
- **Define logic inside the handleEvent method.**
- **Deploy and validate event handling.**

Example Code:

```
@Component(immediate = true, service = EventHandler.class, property = {"event.topics=org/apache/sling/api/resource/Resource/ADDED"})
```

```
public class CustomEventHandler implements EventHandler {
    @Override
    public void handleEvent(Event event) {
        System.out.println("Event received: " + event.getTopic());
    }
}
```

---

4. Create Sling Job

Steps:

- **Implement JobConsumer to process Sling jobs.**
- **Register the job in the OSGi service properties.**
- **Deploy and monitor execution.**

Example Code:

```
@Component(service = JobConsumer.class, property = {JobConsumer.PROPERTY_TOPICS +
"=custom/job"})
public class CustomJobConsumer implements JobConsumer {
    @Override
    public JobResult process(Job job) {
        System.out.println("Processing job: " + job.getTopic());
        return JobResult.OK;
    }
}
```

---

5. Create Scheduler

Steps:

- **Develop a Runnable OSGi component.**

- **Configure scheduling parameters.**
- **Deploy and monitor task execution.**

Example Code:

```
@Designate(ocd = ScheduledTask.Config.class)
@Component(service = Runnable.class)
public class ScheduledTask implements Runnable {
   @Override
   public void run() {
      System.out.println("Scheduled task executed");
   }
}
```

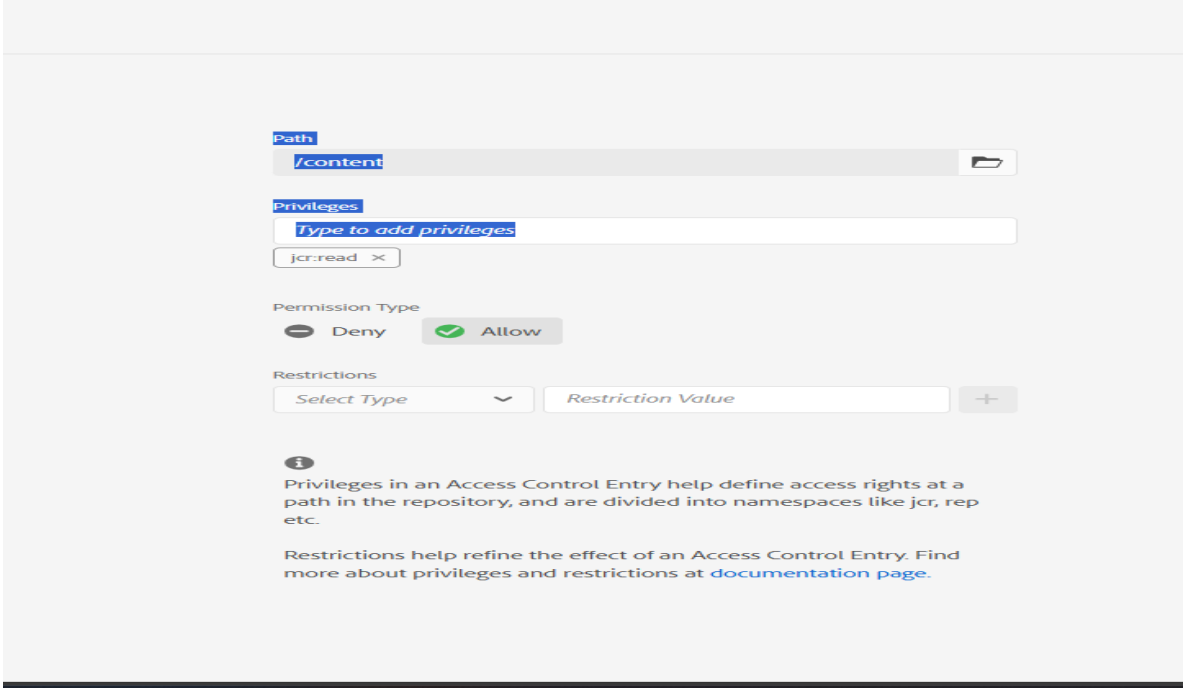
---

6. Create Users & Group with Permissions

Steps:

- **Open AEM User Management.**
- **Create new users and groups.**
- **Assign permissions to roles.**

- **Validate access control settings.**



---

7. Test and Troubleshoot Custom Workflow, Event Handler, Sling Job, and Scheduler

Testing Steps:

- **Trigger workflows manually.**
- **Monitor system logs.**
- **Debug issues and refine logic.**
- **Ensure expected execution of all components.**

---

8. Best Practices for Workflow and Event Handling in AEM

Guidelines:

- **Use asynchronous processing for performance.**
- **Secure event listeners and job execution.**
- **Optimize workflows for efficiency.**
- **Follow AEM coding standards and best practices.**