

# Audit Trail Plugin

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## Usages

- The **Audit Trail Plugin** is triggered after an [audit trail event](#) to provide extra processing capabilities (e.g., capturing reporting data or user notification).
- Audit Trail Plugin can be set in [Plugin Default Properties - Audit Trail](#).
- A usable Audit Trail Plugin must extend [org.joget.plugin.base.DefaultAuditTrailPlugin](#) abstract class.

## Abstract Class

### org.joget.plugin.base.DefaultAuditTrailPlugin

- Under wflow-plugin-base module
- Extended [org.joget.plugin.base.ExtDefaultPlugin](#). Please refer to [Plugin Base Abstract Class and Interface](#).
- Implemented [org.joget.plugin.property.model.PropertyEditable](#). Please refer to [Plugin Base Abstract Class and Interface](#).
- A base abstract class to develop a Audit Trail Plugin.

### Method Detail

#### Abstract Methods

[execute](#)

```
public abstract java.lang.Object execute(java.util.Map props)
```

To execute the extra processing based on Audit Trail Event.

An [org.joget.apps.app.model.AuditTrail](#) object is passed as "auditTrail" property.

**Return** is not used for now.

## Sample Usage

```
public Object execute(Map props) {
    AuditTrail auditTrail = (AuditTrail) props.get("auditTrail");
    if (auditTrail != null && auditTrail.getClass().startsWith("org.joget.apps.form.dao.FormDataDaoImpl")) {
        String method = auditTrail.getMethod();

        if (method.equals("load")) {
            Class[] paramTypes = auditTrail.getParamTypes();
            Object[] params = auditTrail.getArgs();
            Object returnObject = auditTrail.getReturnObject();
            //do something
        }
    }
    return null;
}
```

## Audit Trail Event

Workflow Process Related Events

Please refer to [WorkflowManager](#) for extra information.

Class	Method	ParamTypes	Params (Args)	Return
org.joget.workflow.model.service.WorkflowManagerImpl	activityAbort	java.lang.String, java.lang.String	processId, activityDefId	void
org.joget.workflow.model.service.WorkflowManagerImpl	activityStart	java.lang.String, java.lang.String, boolean	processId, activityDefId, abortRunningActivities	boolean
org.joget.workflow.model.service.WorkflowManagerImpl	activityVariable	java.lang.String, java.lang.String, java.lang.Object	activityInstanceId, variableId, variableValue	void
org.joget.workflow.model.service.WorkflowManagerImpl	activityVariables	java.lang.String, java.util.Map	activityInstanceId, variables	void
org.joget.workflow.model.service.WorkflowManagerImpl	assignmentAbort	java.lang.String	activityId	void
org.joget.workflow.model.service.WorkflowManagerImpl	assignmentComplete	java.lang.String	activityId	void
org.joget.workflow.model.service.WorkflowManagerImpl	assignmentComplete	java.lang.String, java.util.Map	activityId, variableMap	void
org.joget.workflow.model.service.WorkflowManagerImpl	assignmentForceComplete	java.lang.String, java.lang.String, java.lang.String, java.lang.String	processDefId, processId, activityId, username	void
org.joget.workflow.model.service.WorkflowManagerImpl	assignmentReassign	java.lang.String, java.lang.String, java.lang.String, java.lang.String, java.lang.String	processDefId, processId, activityId, username, replaceUser	void
org.joget.workflow.model.service.WorkflowManagerImpl	assignmentReassignUser	java.lang.String	activityId	void
org.joget.workflow.model.service.WorkflowManagerImpl	assignmentVariable	java.lang.String, java.lang.String, java.lang.String	activityId, variableName, variableValue	void
org.joget.workflow.model.service.WorkflowManagerImpl	assignmentVariables	java.lang.String, java.util.Map<java.lang.String, java.lang.String>	activityId, variableMap	void
org.joget.workflow.model.service.WorkflowManagerImpl	processAbort	java.lang.String	processId	boolean
org.joget.workflow.model.service.WorkflowManagerImpl	processCompleted	java.lang.String	processId	void
org.joget.workflow.model.service.WorkflowManagerImpl	processCopyFromInstanceId	java.lang.String, java.lang.String, boolean	currentProcessId, newProcessDefId, abortCurrentProcess	org.joget.workflow.model.WorkflowProcessResult
org.joget.workflow.model.service.WorkflowManagerImpl	processCreateWithoutStart	java.lang.String	processDefId	java.lang.String
org.joget.workflow.model.service.WorkflowManagerImpl	processDeleteAndUnload	java.lang.String	packageId	void
org.joget.workflow.model.service.WorkflowManagerImpl	processDeleteAndUnloadVersion	java.lang.String, java.lang.String	packageId, version	void
org.joget.workflow.model.service.WorkflowManagerImpl	processStart	java.lang.String	processDefId	org.joget.workflow.model.WorkflowProcessResult
org.joget.workflow.model.service.WorkflowManagerImpl	processStart	java.lang.String, java.util.Map<java.lang.String, java.lang.String>	processDefId, variables	org.joget.workflow.model.WorkflowProcessResult
org.joget.workflow.model.service.WorkflowManagerImpl	processStart	java.lang.String, java.util.Map<java.lang.String, java.lang.String>, java.lang.String	processDefId, variables, startProcUsername	org.joget.workflow.model.WorkflowProcessResult
org.joget.workflow.model.service.WorkflowManagerImpl	processStart	java.lang.String, java.lang.String, java.util.Map<java.lang.String, java.lang.String>, java.lang.String, java.lang.String, boolean	processDefId, processId, variables, startProcUsername, parentProcessId, startManually	org.joget.workflow.model.WorkflowProcessResult
org.joget.workflow.model.service.WorkflowManagerImpl	processStartWithInstanceId	java.lang.String, java.lang.String, java.util.Map<java.lang.String, java.lang.String>	processDefId, processId, variables	org.joget.workflow.model.WorkflowProcessResult
org.joget.workflow.model.service.WorkflowManagerImpl	processStartWithLinking	java.lang.String, java.util.Map<java.lang.String, java.lang.String>, java.lang.String, java.lang.String	processDefId, variables, startProcUsername, parentProcessId	org.joget.workflow.model.WorkflowProcessResult
org.joget.workflow.model.service.WorkflowManagerImpl	processUpload	java.lang.String, byte[]	packageId, processDefinitionData	java.lang.String
org.joget.workflow.model.service.WorkflowManagerImpl	processUploadWithoutUpdateMapping	java.lang.String, byte[]	packageId, processDefinitionData	java.lang.String

org.joget.workflow.model.service.WorkflowManagerImpl	processVariable	java.lang.String, java.lang.String, java.lang.Object	processInstanceId, variableId, variableValue	void
org.joget.workflow.model.service.WorkflowManagerImpl	processVariables	java.lang.String, java.util.Map	processInstanceId, variables	void
org.joget.workflow.model.service.WorkflowManagerImpl	reevaluateAssignmentsForActivity	java.lang.String	activityInstanceId	void
org.joget.workflow.model.service.WorkflowManagerImpl	reevaluateAssignmentsForProcess	java.lang.String	procInstanceId	void
org.joget.workflow.model.service.WorkflowManagerImpl	reevaluateAssignmentsForProcesses	java.lang.String[]	procInstanceIds	void
org.joget.workflow.model.service.WorkflowManagerImpl	reevaluateAssignmentsForUser	java.lang.String	username	void
org.joget.workflow.model.service.WorkflowManagerImpl	removeProcessInstance	java.lang.String	procInstanceId	void
org.joget.workflow.shark.WorkflowAssignmentManager	getDefaultAssignments	java.lang.String, java.lang.String, org.joget.workflow.model.WorkflowProcess	procInstanceId, activityInstanceId, processInstance	java.util.List<java.lang.String>
org.joget.workflow.shark.WorkflowToolActivityHandler	executeActivity	org.joget.workflow.model.WorkflowAssignment	workflowAssignment	void
org.joget.workflow.shark.WorkflowToolActivityHandler	executeTool	org.joget.workflow.model.WorkflowAssignment	workflowAssignment	void
org.joget.workflow.shark.WorkflowToolActivityHandler	executeToolCompleted	org.joget.workflow.model.WorkflowAssignment	workflowAssignment	void

## Form Related Events

Please refer to [FormDataDao](#) for extra Information.

Class	Method	ParamTypes	Params (Args)	Return
org.joget.apps.form.dao.FormDataDaoImpl	count	org.joget.apps.form.model.Form, java.lang.String, java.lang.Object[]	form, condition, params	java.lang.Long
org.joget.apps.form.dao.FormDataDaoImpl	count	java.lang.String, java.lang.String, java.lang.String, java.lang.Object[]	formDefId, tableName, condition, params	java.lang.Long
org.joget.apps.form.dao.FormDataDaoImpl	delete	org.joget.apps.form.model.Form, java.lang.String[]	form, primaryKeyValues	void
org.joget.apps.form.dao.FormDataDaoImpl	delete	java.lang.String, java.lang.String, java.lang.String[]	formDefId, tableName, primaryKeyValues	void
org.joget.apps.form.dao.FormDataDaoImpl	delete	java.lang.String, java.lang.String, org.joget.apps.form.model.FormRowSet	formDefId, tableName, rows	void
org.joget.apps.form.dao.FormDataDaoImpl	find	org.joget.apps.form.model.Form, java.lang.String, java.lang.Object[], java.lang.String, java.lang.Boolean, java.lang.Integer, java.lang.Integer	form, condition, params, sort, desc, start, rows	org.joget.apps.form.model.FormRowSet
org.joget.apps.form.dao.FormDataDaoImpl	find	java.lang.String, java.lang.String, java.lang.String, java.lang.Object[], java.lang.String, java.lang.Boolean, java.lang.Integer, java.lang.Integer	formDefId, tableName, condition, params, sort, desc, start, rows	org.joget.apps.form.model.FormRowSet
org.joget.apps.form.dao.FormDataDaoImpl	findPrimaryKey	org.joget.apps.form.model.Form, java.lang.String, java.lang.String	form, fieldName, value	java.lang.String
org.joget.apps.form.dao.FormDataDaoImpl	findPrimaryKey	java.lang.String, java.lang.String, java.lang.String, java.lang.String	formDefId, tableName, fieldName, value	java.lang.String
org.joget.apps.form.dao.FormDataDaoImpl	load	org.joget.apps.form.model.Form, java.lang.String	form, primaryKey	org.joget.apps.form.model.FormRow
org.joget.apps.form.dao.FormDataDaoImpl	load	java.lang.String, java.lang.String, java.lang.String	formDefId, tableName, primaryKey	org.joget.apps.form.model.FormRow
org.joget.apps.form.dao.FormDataDaoImpl	loadWithoutTransaction	org.joget.apps.form.model.Form, java.lang.String	form, primaryKey	org.joget.apps.form.model.FormRow
org.joget.apps.form.dao.FormDataDaoImpl	loadWithoutTransaction	java.lang.String, java.lang.String, java.lang.String	formDefId, tableName, primaryKey	org.joget.apps.form.model.FormRow
org.joget.apps.form.dao.FormDataDaoImpl	saveOrUpdate	org.joget.apps.form.model.Form, org.joget.apps.form.model.FormRowSet	form, rowSet	void

org.joget.apps.form.dao. FormDataDaoImpl	saveOrUpdate	java.lang.String, java.lang.String, org.joget.apps.form.model.FormRowSet	formDefId, tableName, rowSet	void
org.joget.apps.form.dao. FormDataDaoImpl	updateSchema	org.joget.apps.form.model.Form, org.joget.apps.form.model.FormRowSet	form, rowSet	void
org.joget.apps.form.dao. FormDataDaoImpl	updateSchema	java.lang.String, java.lang.String, org.joget.apps.form.model.FormRowSet	formDefId, tableName, rowSet	void

## Organization Chart Related Events

Class	Method	ParamTypes	Params (Args)	Return
org.joget.apps.app.web.SessionListener	logout	java.lang.String	username	boolean
org.joget.apps.workflow.security. WorkflowAuthenticationProvider	authenticate	java.lang.String	username	boolean
org.joget.apps.workflow.security. WorkflowHttpAuthProcessingFilter	authenticate	java.lang.String	username	boolean
org.joget.directory.dao.DepartmentDaoImpl	addDepartment	org.joget.directory.model.Department	department	java.lang.Boolean
org.joget.directory.dao.DepartmentDaoImpl	countDepartments	java.lang.String, java.lang.Object[]	condition, params	java.lang.Long
org.joget.directory.dao.DepartmentDaoImpl	deleteDepartment	java.lang.String	id	java.lang.Boolean
org.joget.directory.dao.DepartmentDaoImpl	findDepartments	java.lang.String, java.lang.Object[], java.lang.String, java.lang.Boolean, java.lang.Integer, java.lang.Integer	condition, params, sort, desc, start, rows	java.util.Collection<org.joget.directory.model.Department>
org.joget.directory.dao.DepartmentDaoImpl	updateDepartment	org.joget.directory.model.Department	department	java.lang.Boolean
org.joget.directory.dao.EmploymentDaoImpl	addEmployment	org.joget.directory.model.Employment	employment	java.lang.Boolean
org.joget.directory.dao.EmploymentDaoImpl	assignUserAsDepartmentHOD	java.lang.String, java.lang.String	userId, departmentId	java.lang.Boolean
org.joget.directory.dao.EmploymentDaoImpl	assignUserReportTo	java.lang.String, java.lang.String	userId, reportToUserId	java.lang.Boolean
org.joget.directory.dao.EmploymentDaoImpl	assignUserToDepartment	java.lang.String, java.lang.String	userId, departmentId	java.lang.Boolean
org.joget.directory.dao.EmploymentDaoImpl	assignUserToGrade	java.lang.String, java.lang.String	userId, gradeId	java.lang.Boolean
org.joget.directory.dao.EmploymentDaoImpl	assignUserToOrganization	java.lang.String, java.lang.String	userId, organizationId	java.lang.Boolean
org.joget.directory.dao.EmploymentDaoImpl	countEmployments	java.lang.String, java.lang.Object[]	condition, params	java.lang.Long
org.joget.directory.dao.EmploymentDaoImpl	deleteEmployment	java.lang.String	id	java.lang.Boolean
org.joget.directory.dao.EmploymentDaoImpl	findEmployments	java.lang.String, java.lang.Object[], java.lang.String, java.lang.Boolean, java.lang.Integer, java.lang.Integer	condition, params, sort, desc, start, rows	java.util.Collection<org.joget.directory.model.Employment>
org.joget.directory.dao.EmploymentDaoImpl	unassignUserAsDepartmentHOD	java.lang.String, java.lang.String	userId, departmentId	java.lang.Boolean
org.joget.directory.dao.EmploymentDaoImpl	updateEmployment	org.joget.directory.model.Employment	employment	java.lang.Boolean
org.joget.directory.dao.EmploymentDaoImpl	unassignUserFromDepartment	java.lang.String, java.lang.String	userId, departmentId	java.lang.Boolean
org.joget.directory.dao.EmploymentDaoImpl	unassignUserFromGrade	java.lang.String, java.lang.String	userId, gradeId	java.lang.Boolean
org.joget.directory.dao.EmploymentDaoImpl	unassignUserFromOrganization	java.lang.String, java.lang.String	userId, organizationId	java.lang.Boolean
org.joget.directory.dao.EmploymentDaoImpl	unassignUserReportTo	java.lang.String	userId	java.lang.Boolean
org.joget.directory.dao.EmploymentReportToDaoImpl	addEmploymentReportTo	org.joget.directory.model.EmploymentReportTo	reportTo	java.lang.Boolean
org.joget.directory.dao.EmploymentReportToDaoImpl	deleteEmploymentReportTo	java.lang.String	id	java.lang.Boolean
org.joget.directory.dao.EmploymentReportToDaoImpl	updateEmploymentReportTo	org.joget.directory.model.EmploymentReportTo	reportTo	java.lang.Boolean
org.joget.directory.dao.GradeDaoImpl	addGrade	org.joget.directory.model.Grade	grade	java.lang.Boolean
org.joget.directory.dao.GradeDaoImpl	countGrades	java.lang.String, java.lang.Object[]	condition, params	java.lang.Long
org.joget.directory.dao.GradeDaoImpl	deleteGrade	java.lang.String	id	java.lang.Boolean
org.joget.directory.dao.GradeDaoImpl	findGrades	java.lang.String, java.lang.Object[], java.lang.String, java.lang.Boolean, java.lang.Integer, java.lang.Integer	condition, params, sort, desc, start, rows	java.util.Collection<org.joget.directory.model.Grade>

org.joget.directory.dao.GradeDaoImpl	updateGrade	org.joget.directory.model.Grade	grade	java.lang.Boolean
org.joget.directory.dao.GroupDaoImpl	addGroup	org.joget.directory.model.Group	group	java.lang.Boolean
org.joget.directory.dao.GroupDaoImpl	countGroups	java.lang.String, java.lang.Object[]	condition, params	java.lang.Long
org.joget.directory.dao.GroupDaoImpl	deleteGroup	java.lang.String	id	java.lang.Boolean
org.joget.directory.dao.GroupDaoImpl	findGroups	java.lang.String, java.lang.Object[], java.lang.String, java.lang.Boolean, java.lang.Integer, java.lang.Integer	condition, params, sort, desc, start, rows	java.util.Collection<org.joget.directory.model.G roup>
org.joget.directory.dao.GroupDaoImpl	updateGroup	org.joget.directory.model.Group	group	java.lang.Boolean
org.joget.directory.dao.OrganizationDaoImpl	addOrganization	org.joget.directory.model.Organization	organization	java.lang.Boolean
org.joget.directory.dao.OrganizationDaoImpl	countOrganizations	java.lang.String, java.lang.Object[]	condition, params	java.lang.Long
org.joget.directory.dao.OrganizationDaoImpl	deleteOrganization	java.lang.String	id	java.lang.Boolean
org.joget.directory.dao.OrganizationDaoImpl	findOrganizations	java.lang.String, java.lang.Object[], java.lang.String, java.lang.Boolean, java.lang.Integer, java.lang.Integer	condition, params, sort, desc, start, rows	java.util.Collection<org.joget.directory.model.O rganization>
org.joget.directory.dao.OrganizationDaoImpl	updateOrganization	org.joget.directory.model.Organization	organization	java.lang.Boolean
org.joget.directory.dao.RoleDaoImpl	addRole	org.joget.directory.model.Role	role	java.lang.Boolean
org.joget.directory.dao.RoleDaoImpl	countRoles	java.lang.String, java.lang.Object[]	condition, params	java.lang.Long
org.joget.directory.dao.RoleDaoImpl	deleteRole	java.lang.String	id	java.lang.Boolean
org.joget.directory.dao.RoleDaoImpl	findRoles	java.lang.String, java.lang.Object[], java.lang.String, java.lang.Boolean, java.lang.Integer, java.lang.Integer	condition, params, sort, desc, start, rows	java.util.Collection<org.joget.directory.model.L Role>
org.joget.directory.dao.RoleDaoImpl	updateRole	org.joget.directory.model.Role	role	java.lang.Boolean
org.joget.directory.dao.UserDaoImpl	addUser	org.joget.directory.model.User	user	java.lang.Boolean
org.joget.directory.dao.UserDaoImpl	assignUserToGroup	java.lang.String, java.lang.String	username, groupId	java.lang.Boolean
org.joget.directory.dao.UserDaoImpl	countUsers	java.lang.String, java.lang.Object[]		java.lang.Long
org.joget.directory.dao.UserDaoImpl	deleteUser	java.lang.String	username	java.lang.Boolean
org.joget.directory.dao.UserDaoImpl	findUsers	java.lang.String, java.lang.Object[], java.lang.String, java.lang.Boolean, java.lang.Integer, java.lang.Integer		java.util.Collection<org.joget.directory.model.U ser>
org.joget.directory.dao.UserDaoImpl	unassignUserFromGroup	java.lang.String, java.lang.String	username, groupId	java.lang.Boolean
org.joget.directory.dao.UserDaoImpl	updateUser	org.joget.directory.model.User	user	java.lang.Boolean
org.joget.directory.dao.UserDaoImpl	updateUserEmploymentinfo	java.lang.String, org.joget.directory.model.Employment	username, info	java.lang.Boolean

## Plugin Properties Options

- Please refer to [Plugin Properties Options](#) for more information.

## Tutorials

- [Guideline for developing a plugin](#)
- [How to develop a Slack Notification plugin](#)

## Related Community Plugins

- **Process Data Collector**  
org.joget.apps.app.lib.ProcessDataCollectorAuditTrail (wflow-core)
- **User Notification**  
org.joget.apps.app.lib.UserNotificationAuditTrail (wflow-core)