



Preserving the future

## **RODA 4**

Adding disposal schedule and holds feature inspired in MoReq2010 to a digital preservation repository

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DLM Forum 2021  
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## **RODA 4**

Developed between March 2020 and March 2021

**Disposal and retention** feature

@sponsored by **Swedish Customs (Tullverket)**

**Croatian translation** of all user interface

@contribution of **Ericsson Nikola Tesla**

## **Selection and Appraisal, Retention and destruction**

**Appraisal:** the process of evaluating records to determine which are to be retained as archives, which are to be kept for specified periods and which are to be destroyed.

**Selection:** process of deciding what will be added to a library's collection.

**Retention and destruction:** determining which records to retain and for how long, itself a multiple decision-making process inside whatever structure is relevant, be it a small group, a larger department, a whole organization or the more traditional archival approach involving retention beyond organizational boundaries.

## **Disposal schedule methodologies**

### **By Series**

Records are **organised in series** in the archival hierarchy, which define the **retention periods** for all records by inheritance.

### **By Classification** (metadata)

Records are **organised by classes defined in their metadata**. Records can belong to **multiple classes**. National “classification schemes” define the possible record classes and set the **relationship** between the **classes and the records disposal** action and retention period.

## **Disposal schedule (Moreq2010)**

A **record**, once it has been created in an MCRS, **can never be deleted in full**, as if it had never existed. This concept of accountability is important to good records management: although the complete record and its content no longer exist, there **remains a residual record** to show that it was once held by the MCRS. The residual record, which remains with the MCRS for the life of the system, **proves** not only that a record was once active but also, and possibly more importantly, that the **record was properly disposed of under an appropriate disposal schedule.**

It is the record's disposal schedule that **determines how long a record is retained** and **how it is subsequently disposed** of at the end of its retention period.

## Disposal schedule (Moreq2010)

<i>Field</i>	<i>Description</i>	<i>Mandatory</i>
Title	The identifying name or title of the disposal schedule	True
Description	Description of the disposal schedule	False
Mandate	Textual reference to a legal or other instrument that provides the authority for a disposal schedule	False
Scope Notes	Guidance to authorised users indicating how best to apply a particular entity and stating any organisational policies or constraints on its use	False
Disposal Action	Code describing the action to be taken on disposal of the record (Possible values: Retain permanently, Review, Destroy)	True
Retention trigger element identifier	The descriptive metadata field used to calculate the retention period	True (If Disposal action code is different from Retain permanently)
Retention period	Number of days, weeks, months or years specified for retaining a record after the retention period is triggered	True (If Disposal action code is different from Retain permanently)

## **Disposal actions**

Retain permanently

Review at the end of the retention period (partial support)

Destroy at the end of the retention period

**Not supported:** Transfer and full review workflow

## Retain permanently

All RODA methods that allow elimination or pruning of records are **disallowed**, even by users with administrative permissions.

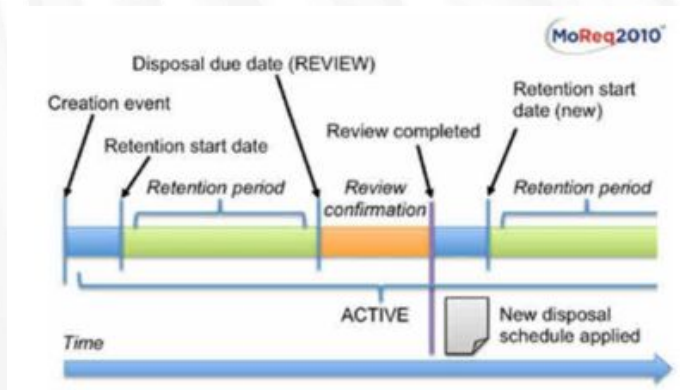
The disposal action must be changed to allow any information destruction.





## Review (partial support)

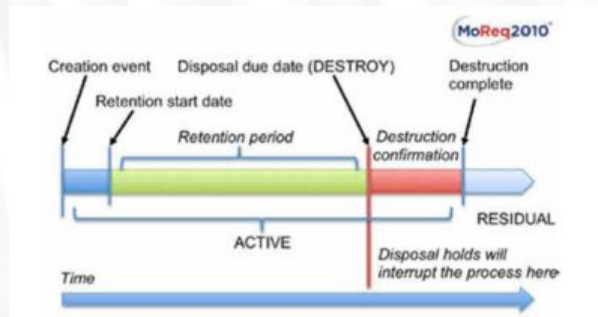
Records can be **marked to be reviewed** after a retention period, but the workflow for review confirmation is not supported. Records simply must be **assigned with a new disposal schedule** to get out of the review list, being it a destruction or retain permanently schedule, or a review schedule with a larger retention period.



## Destroy

Destruction requires an a **formal destruction confirmation** workflow, where a **printable report** is produced.

When destruction is executed, descriptive **metadata** can be **pruned** using XSLT, and all the **files** associated to the record are **destroyed** leaving the record in a **RESIDUAL** state.



## Disposal rules

Disposal rules are a set of **requirements** that **determine** the **disposal schedule** for each intellectual entity in this repository.

<i>Field</i>	<i>Description</i>	<i>Mandatory</i>
Order	Priority order which the rules will be applied in the ingest process or apply process	True
Title	The identifying name or title of the disposal rule	True
Description	Description of the disposal rule	False
Schedule	Disposal schedule that will be associated to a record	True
Selection method	Condition that will trigger the disposal rule (Possible values: Child of, metadata field)	True

## Disposal holds

**Disposal holds** are legal or other administrative orders that **interrupts** the normal **disposal** process and **prevents** the **destruction** of an intellectual entity while the disposal hold is in place.

<i>Field</i>	<i>Description</i>	<i>Mandatory</i>
Title	The identifying name or title of the disposal hold	True
Description	Description of the disposal hold	False
Mandate	Textual reference to a legal or other instrument that provides the authority for a disposal hold	False
Scope Notes	Guidance to authorised users indicating how best to apply a particular entity and stating any organisational policies or constraints on its use	False

## **Disposal confirmation**

Workflow to administratively **confirm** the **destruction** of records.

A **report aggregates** all necessary **metadata** from the records to be destroyed in **printable format**. This report must be **formally accepted** and the destruction **explicitly requested**.

After destruction, the records of a whole **disposal confirmation** report can be **restored** or **permanently destroyed**.

This is an extension to the MoReq2010 defined procedure.

## **Disposal Bin - Safety net against involuntary destructions**

At the request of the Swedish Customs, a **safety net** that allows to **recover records** that were **improperly destroyed** was created.

After the destruction of records referred in a disposal confirmation report, they can be **restored** to the **previous state**. The destroyed records are kept in a **logically separated storage, inaccessible for any RODA method** except for the restore or permanent destruction.

**Permanent destruction** can also be **setup** to be **automatic after a period of time**.

The background consists of numerous vertical lines of varying lengths and thicknesses, creating a dense, textured effect. The color palette is primarily dark red and black, with some lighter red tones. The lines are oriented vertically, with some appearing to converge towards the top of the frame, giving a sense of depth and movement. The overall aesthetic is modern and minimalist.

# Walkthrough

## Disposal policies

In this page you can consult the different disposal policies that are associated with this repository. Information about the disposal schedules, disposal holds and disposal rules created for the propose of manage the life cycles of intellectual entities.

### Disposal schedules

Disposal schedules set the minimum requirements for the maintenance, retention or destruction actions to be taken in the existing or future intellectual entities in this repository. A intellectual entity may only be destroyed as part of a disposal process governed by the disposal schedule assigned to that entity. It is the intellectual entity's disposal schedule that determines how long a record is retained and how it is subsequently disposed of at the end of its retention period.

Title	Mandate	Period	Action	State
Disposal schedule test	Some description about the mandate	10 years	Destroy	Active

### Disposal rules

Disposal rules are a set of requirements that determine the disposal schedule for each intellectual entity in this repository. The disposal rules can be applied at any time in order to maintain the repository consistency. Disposal rules can also be applied during the ingest process. Disposal rules have a priority property in which they are executed. If a record is not covered by any of the rules, it will not be associated to a disposal schedule.

#	Title	Selection method	Condition	Schedule
1	Disposal rule number 1	Child of	Letters	Disposal schedule test

### Disposal holds

Disposal holds are legal or other administrative orders that interrupts the normal disposal process and prevents the destruction of an intellectual entity while the disposal hold is in place. Where the disposal hold is associated with an individual record, it prevents the destruction of that record while the disposal hold remains active. Once the disposal hold is lifted, the record disposal process continues.

Title	Mandate	State
Disposal hold demonstration	Some context about the mandate	Active

### Actions

#### Disposal schedules

[CREATE DISPOSAL S...](#)

#### Disposal rules

[CREATE DISPOSAL R...](#)
[PRIORITIZE RULES](#)
[APPLY RULES](#)

#### Disposal holds

[CREATE DISPOSAL H...](#)



## Create disposal schedule

Title \*

Disposal schedule test

Description

Some description about the disposal schedule

Mandate

Some description about the mandate

Scope notes

Action \*

Destroy

Retention trigger element identifier \*

Date

Retention period \*

10

Years

(\*) Required fields

Actions

SAVE

CANCEL



## Create disposal rule

Title \*

Disposal rule number 1

Description

Some description about disposal rule number 1

Schedule \*

Disposal schedule test

Selection method \*

Child of

Select parent

 Letters



(\*) Required fields

Actions

SAVE

CANCEL

org.roda.core.plugins.plugins.ingest.VerifyUserAuthorizationPlugin (1.0)

Start datetime

2021-10-11 10:40:08 UTC

End datetime

2021-10-11 10:40:08 UTC

Outcome

Success

Outcome details

Done with checking user authorization for AIP 0159c733-1a0d-40db-ae2c-e3a8afd239be

## 7. Disposal schedule association via disposal rule

Optional

Agent

org.roda.core.plugins.plugins.internal.disposal.rules.ApplyDisposalRulesPlugin (1.0)

Start datetime

2021-10-11 10:40:08 UTC

End datetime

2021-10-11 10:40:08 UTC

Outcome

Success

Outcome details

Disposal schedule 'Disposal schedule test' was successfully associated to AIP '0159c733-1a0d-40db-ae2c-e3a8afd239be' via disposal rule 'Disposal rule number 1'

## 8. Auto accept

Mandatory

Agent

org.roda.core.plugins.plugins.ingest.AutoAcceptSIPPlugin (1.0)

Start datetime

2021-10-11 10:40:08 UTC

End datetime

2021-10-11 10:40:08 UTC

Outcome

Success

Actions

BACK



# Title

**Due for destruction in 10 years**

0 risk incidences, 11 preservation events and 20 log entries

Created by admin on 2021-10-11 and last updated by admin on 2021-10-11

Dublin Core (2002-12-12) 





Title

Title

Creator

Creator

Date

2021-12-31

Identifier

Id

Publisher

Publisher

 Representations

Search...

advanced 




<input type="checkbox"/>	Type	Number of files	Size	Status	Creation date	Last modification
<input type="checkbox"/>	 MIXED	4 files and 2 folders	5.4 MB		2021-10-11 10:40:06 UTC	2021-10-11 10:40:06 UTC

Type

MIXED (1)

EXPORT

1-1 of 1  

### Associate disposal hold

Title	Mandate
Disposal hold demonstration	Some context about the mandate

## Title

On hold

0 risk incidences, 12 preservation events and 22 log entries

Created by admin on 2021-10-11 and last updated by admin on 2021-10-11

Dublin Core (2002-12-12)



Title

Title

Creator

Creator

Date

2021-12-31

Identifier

Id

Publisher

Publisher

Representations

Search...

advanced



Type

Number of files

Size

Status

Creation date

Last modification

Type

MIXED

4 files and 2 folders

5.4 MB

2021-10-11 10:40:06  
UTC

2021-10-11 10:40:06  
UTC

MIXED (1)

EXPORT

1-1 of 1

## Create disposal confirmation

In this page you can see the intellectual entities that are overdue for destruction or review. If the records are ready for destruction it is possible to integrate them into a new disposal confirmation or change their disposal schedule. If the records are ready for review, you can only change their disposal schedule. It is also possible to view the records which their retention period calculation failed.

[Show records to destroy](#)[Show records to review](#)[Retention period errors](#)[advanced](#) ▾

<input type="checkbox"/>	Level	Title	Disposal schedule	Retention start date	Overdue on
<input type="checkbox"/>	Item	Title	Disposal schedule test	2001-12-13	2011-12-13

[EXPORT](#)1-1 of 1  

## Disposal confirmations

In this page you can consult the disposal confirmations that were created for this repository. A disposal confirmation consists of a report that aggregates the intellectual entities and extra metadata information. In order to destroy the intellectual entities associated to a disposal confirmation you need to explicit execute the destroy action. After destroyed the intellectual entities within the disposal confirmation can be restored or permanently deleted.

[advanced](#)


Title	Creation date	Creator	Status	# AIP	Storage size
Disposal confirmation demonstration	2021-10-11 11:46:03	admin	Pending	1	5.4 MB

[EXPORT](#)

1-1 of 1

Status

 Pending (1)

Creator

 admin (1)

Actions

[NEW CONFIRMATION](#)



# Disposal report nr<sup>o</sup> 63cd0a40-4242-49c4-8ae8-d59ad24fe42e

This disposal agreement created by admin on 2021-10-11 10:46:03, was approved on 2021-10-11 and signed by Institution X, on the date defined below, allowing the destruction of 1 records.

## List of records to be destroyed

Level	Name	Fonds/Collection	Nr files	Size	Schedule id	Holds id
item	Title		4	5649120	6c1269a5-d0ad-461f-94bd-7053bc978833	[c0e46c1f-b406-4624-bc55-0c80ade8b6ca]

## Description of disposal schedules associated to a record

### Disposal Schedule: Disposal schedule test

Identifier: 6c1269a5-d0ad-461f-94bd-7053bc978833  
 Created on 2021-10-11 10:35:49 UTC by admin  
 Updated on 2021-10-11 10:35:49 UTC by admin

Description: **Some description about the disposal schedule**

Mandate: **Some description about the mandate**

Scope notes:

Action: **DESTROY**

Retention trigger element Identifier: **dateFinal**

Retention period: **10 YEARS**

### Disposal Schedule

[DESTROY](#)

### Disposal Confirmation

[PRINT REPORT](#)
[DELETE](#)
[BACK](#)

## Disposal Schedule: Disposal schedule test

Identifier: 6c1269a5-d0ad-461f-94bd-7053bc978833  
Created on 2021-10-11 10:35:49 UTC by admin  
Updated on 2021-10-11 10:35:49 UTC by admin

Description: Some description about the disposal schedule

Mandate: Some description about the mandate

Scope notes:

Action: DESTROY

Retention trigger element Identifier: dateFinal

Retention period: 10 YEARS

## Description of disposal holds associated to a record

### Disposal Hold: Disposal hold demonstration

Identifier: c0e46c1f-b406-4624-bc55-0c80ade8b6ca  
Created on 2021-10-11 10:38:12 UTC by admin  
Updated on 2021-10-11 10:43:57 UTC by admin

Description: Some description about disposal hold demonstration

Mandate: Some context about the mandate

Scope notes

Approved by

Institution X

Approved on

2021-10-11

Signature

---

### About RODA

What is RODA?  
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Binary  
Source code

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Developer guide  
Translations  
Roadmap  
Bug reporting

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Preserving the future

## Disposal Schedule

DESTROY 

## Disposal Confirmation

PRINT REPORT 

DELETE 

BACK 

## Destroyed records

In this page you can see the intellectual entities that are in a destroyed state. The destroyed record, which remains for the life of the system, proves not only that a record was once active but also, and possibly more importantly, that the record was properly disposed by an appropriate disposal schedule.

[Intellectual Entities](#)[advanced](#) 

 Level	Title	Retention start date	Disposal schedule	Destroyed on	Destroyed by
 Item	Title	2001-12-13	Disposal schedule test	2021-10-11	admin

[EXPORT](#)

1-1 of 1



### Description levels

 Item (1)

### Disposal schedule

 Disposal schedule test (1)

### Destroyed by

 admin (1)

**Destroyed**

# Title

**Destroyed on 2021-10-11****0 risk incidences, 15 preservation events and 52 log entries**

Created by admin on 2021-10-11 and last updated by admin on 2021-10-11

**Dublin Core (2002-12-12)**

Title

**Title**

Date

2001-12-13

Identifier

**Id**

# Disposal report nr<sup>o</sup> 63cd0a40-4242-49c4-8ae8-d59ad24fe42e

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## Description of disposal schedules associated to a record

### Disposal Schedule: Disposal schedule test

Identifier: 6c1269a5-d0ad-461f-94bd-7053bc978833  
 Created on 2021-10-11 10:35:49 UTC by admin  
 Updated on 2021-10-11 10:35:49 UTC by admin

Description: **Some description about the disposal schedule**

Mandate: **Some description about the mandate**

Scope notes:

Action: **DESTROY**

Retention trigger element Identifier: **dateFinal**

Retention period: **10 YEARS**

Disposal Confirmation

PRINT REPORT 

Disposal bin

PERMANENTLY DELETE 

RESTORE 

BACK 



## Disposal confirmations

In this page you can consult the disposal confirmations that were created for this repository. A disposal confirmation consists of a report that aggregates the intellectual entities and extra metadata information. In order to destroy the intellectual entities associated to a disposal confirmation you need to explicit execute the destroy action. After destroyed the intellectual entities within the disposal confirmation can be restored or permanently deleted.

[advanced](#) 

Title	Creation date	Creator	Status	# AIP	Storage size	
Disposal confirmation demonstration	2021-10-11 11:46:03	admin	Deleted	1	5.4 MB	

[EXPORT](#)

1-1 of 1  

Status

 Deleted (1)

Creator

 admin (1)

Actions

[NEW CONFIRMATION](#) 

## **RODA 4 released on March 2021**

<https://github.com/keeps/roda/releases/latest> (latest is version 4.0.3)

New features:

- Retention and disposal features
- Adding Croatian language (contribution from Ericsson Nikola Tesla)

Also, many bug fixes and enhancements in subsequent minor releases

## **Support for E-ARK IP 2.0.4 in our tools**

**commons-ip 2.0.0-beta2:** Library and CLI to create, parse and validate SIPs

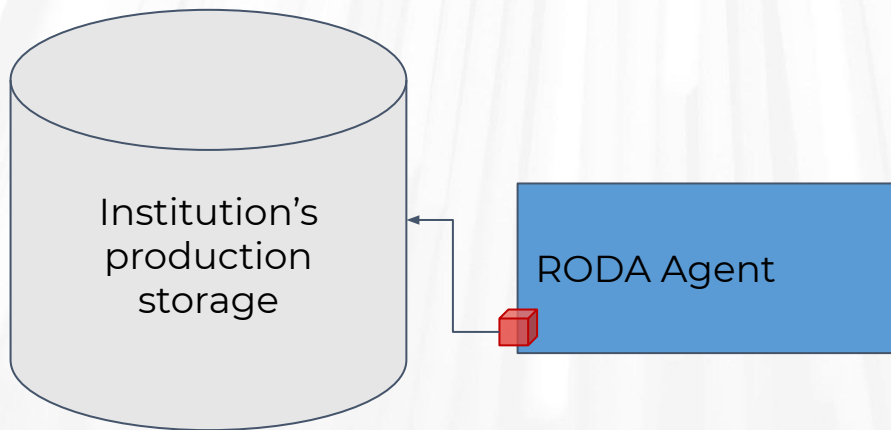
**RODA-in 2.4.0:** Desktop tool to create SIPs

**RODA 4.1.0** (October 2021): Support for E-ARK SIP

**RODA 4.2.0** (December 2021): Support for E-ARK AIP



## **RODA 5: distributed digital preservation (to be released in 2022)**



### RODA Agent

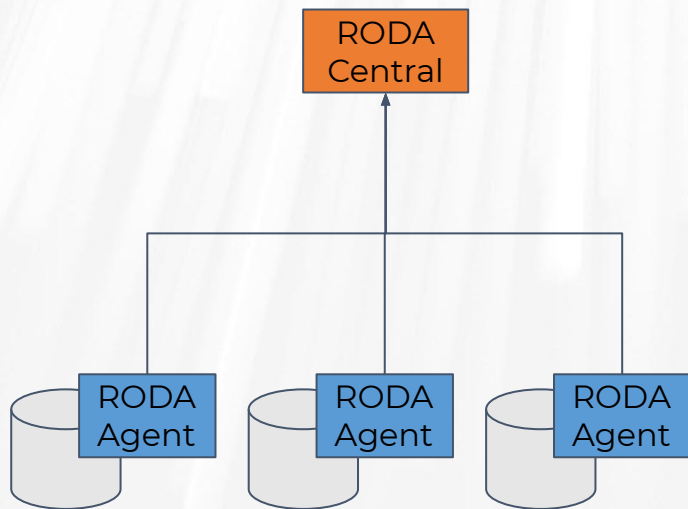
RODA instance that can preserve local content (read-only).

Metadata and migration outcomes are kept in the agent's storage.

E-ARK IP extensions:

**SIP-shallow** and **AIP-shallow**

## **RODA 5: distributed digital preservation (to be released in 2022)**



### RODA Central

Where preservation planning takes place.

Agents sync metadata about records, files, processes, representation information, risks, etc. to the Central.

Central defines the preservation actions to be carried out by the Agents.



Preserving the future

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Adding disposal schedule and holds feature inspired in MoReq2010 to a digital preservation repository

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