

WEB CURATOR TOOL

User Manual

Version 1.5.1

December 2010





Contents

Contents.....	2
Introduction	4
About the Web Curator Tool	4
About this document.....	4
Where to find more information	4
System Overview	5
Background	5
Purpose and scope	5
Essential terminology	6
Impact of the tool	6
How Does it Work?	7
Home Page.....	8
Harvest Authorisations	10
Introduction.....	10
Terminology and status codes	11
How harvest authorisations work	12
Sample harvest authorisation.....	12
Harvest authorisation search page	14
How to create a harvest authorisation	15
How to send and/or print a permission request email.....	20
How to view or update the status of a permission record	21
How to edit or view a harvest authorisation	21
Legislative and other sources of authorisation	22
Targets	24
Introduction	24
Terminology and status codes	24
How targets work	25
Target search page	27
How to create a target	28
How to edit or view a target	32
How to nominate and approve a target	33
How to delete or cancel a target.....	34
Target Instances and Scheduling	35
Introduction.....	35
Terminology and status codes	35
How target instances work	36
Target instance search page	38
Scheduling and the harvest queue.....	39
How to view or edit a target instance	41
How to review, endorse or submit a target instance	42
Target Instance Quality Review	44
Introduction.....	44
Terminology and status codes	44
Opening quality review tools.....	45

Quality review with the browse tool	45
Quality review with the harvest history tool	46
Quality review with the prune tool	47
The log file viewer	49
Diagnosing problems with completed harvests.....	50
Diagnosing when too little material is harvested	54
Diagnosing when too much material is harvested	55
Third-party quality review tools	58
Groups.....	60
Introduction	60
Group search page	61
How to create a group	61
How to edit or view a Group	65
Harvesting a group.....	65
The In Tray	67
Introduction	67
Tasks	67
Notifications	68
Receive Tasks and Notifications via Email.....	70
User, Roles and Agencies	71
Introduction	71
Users	71
Roles.....	71
Agencies.....	71
Harvest authorisation privileges	72
Target privileges	72
Reports.....	73
Introduction	73
System usage report.....	73
System activity report.....	73
Crawler activity report.....	73
Target/Group Schedules report.....	74
Summary Target Schedules report.....	74
Harvester Configuration	75
Introduction	75
Harvester status.....	75
Bandwidth limits.....	75
Profiles.....	75
Permission Request Templates	76
Workflow	77
Minimal workflow	77
General workflow example.....	78
Detailed workflow example	79



Introduction

About the Web Curator Tool

The Web Curator Tool is a tool for managing the selective web harvesting process. It is typically used at national libraries and other collecting institutions to preserve online documentary heritage.

Unlike previous tools, it is enterprise-class software, and is designed for non-technical users like librarians. The software was developed jointly by the National Library of New Zealand and the British Library, and has been released as free software for the benefit of the international collecting community.

About this document

This document is the Web Curator Tool User Manual. It describes how to use the Web Curator Tool through its web browser interface. It assumes your system administrator has already set up the Web Curator Tool.

The manual is divided into chapters, each of which deals with a different aspect of the tool. The chapters generally correspond to the major Web Curator Tool modules. Please note that some screenshots in this manual are based on versions 1.1 and 1.27 of the Web Curator Tool, and subsequent versions may be different in some respects.

System administrators will find an Administrators Guide and other technical documentation on the Web Curator Tool website (webcurator.sf.net).

Where to find more information

The primary source for information on the Web Curator Tool is the website:

<http://webcurator.sf.net/>

The website includes access to the tool, its documentation, news updates, mailing lists, technical documentation, and many other resources, including the most recent version of this manual.

Each page in the Web Curator Tool has a Help link in the top right corner that leads to a context-sensitive help page. The help pages are part of the Web Curator Tool Wiki, and will be developed over time. (If you think a page is insufficient, you can help by updating it.)



System Overview

Background

More and more of our documentary heritage is only available online, but the impermanence and dynamic nature of this content poses significant challenges to any collecting institutions attempting to acquire it.

To solve these problems, the National Library of New Zealand and The British Library initiated a project to design and build a selective web harvesting tool, which has now been released to the collecting community as the Web Curator Tool.

Purpose and scope

The tool is designed to manage the selective web archiving process. It supports a harvesting workflow comprising a series of specialised tasks with the two main business processes supported being acquisition and description.

The Web Curator Tool supports:

- Harvest Authorisation: obtaining permission to harvest web material and make it publicly accessible;
- Selection, scoping and scheduling: deciding what to harvest, how, and when;
- Description: adding basic Dublin Core metadata;
- Harvesting: downloading the selected material from the internet;
- Quality Review: ensuring the harvested material is of sufficient quality for archival purposes; and
- Archiving: submitting the harvest results to a digital archive.

The scope of the tool is carefully defined to focus on web harvesting. It deliberately does not attempt to fulfil other enterprise functions:

- it is not a digital repository or archive (an external repository or archive is required for storage and preservation)
- it is not an access tool
- it is not a cataloguing system (though it does provide some support for simple Dublin Core metadata)
- it is not a document or records management system

Other, specialised tools can perform these functions more effectively and the Web Curator Tool has been designed to interoperate with such systems.

Essential terminology

Important terms used with the Web Curator Tool include:

Web Curator Tool or **WCT** — a tool for managing the selective web harvesting process.

Target — a portion of the web you want to harvest, such as a website or a set of web pages. Target information includes crawler configuration details and a schedule of harvest dates.

Target Instance — a single harvest of a Target that is scheduled to occur (or which has already occurred) at a specific date and time.

harvest or **crawl** — the process of exploring the internet and retrieving specific web pages.

harvest result — the files that are retrieved during a **harvest**.

seed or **seed url** — a starting URL for a harvest, usually the root address of a website. Most harvests start with a seed and include all pages “below” that seed.

harvest authorisation — formal approval for you to harvest web material. You normally need permission to harvest the website, and also to store it and make it accessible.

permission record — a specific record of a harvest authorisation, including the authorising agencies, the dates during which permissions apply and any restrictions on harvesting or access.

authorising agency — a person or organisation who authorises a harvest; often a web site owner or copyright holder.

Impact of the tool

The Web Curator Tool is used at the National Library of New Zealand, and has had these impacts since it was introduced into the existing selective web archiving programme:

Harvesting has become the responsibility of librarians and subject experts. These users control the software handling the technical details of web harvesting through their web browsers, and are much less reliant on technical support people.

Many harvest activities previously performed manually are now automated, such as scheduling harvests, regulating bandwidth, generating preservation metadata.

The institution’s ability to harvest websites for archival purposes has been improved, and a more efficient and effective workflow is in place. The new workflow ensures material is safely managed from before it is harvested until the time it enters a digital archive.

The harvested material is captured in ARC format which has strong storage and archiving characteristics.

The system epitomises best practice through its use of auditing, permission management, and preservation metadata.

How Does it Work?

The Web Curator Tool has the following major components

The Control Centre

The Control Centre includes an access-controlled web interface where users control the tool.

It has a database of selected websites, with associated permission records and other settings, and maintains a harvest queue of scheduled harvests.

Harvest Agents

When the Control Centre determines that a harvest is ready to start, it delegates it to one of its associated harvest agents.

The harvest agent is responsible for crawling the website using the Heritrix web harvester, and downloading the required web content in accordance with the harvester settings and any bandwidth restrictions.

Each installation can have more than one harvest agent, depending on the level of harvesting the organization undertakes.

Digital Asset Store

When a harvest agent completes a harvest, the results are stored on the digital asset store.

The Control Centre provides a set of quality review tools that allow users to assess the harvest results stored in the digital asset store.

Successful harvests can then be submitted to a digital archive for long-term preservation.

Home Page

The **Web Curator Tool Home Page** is pictured below.

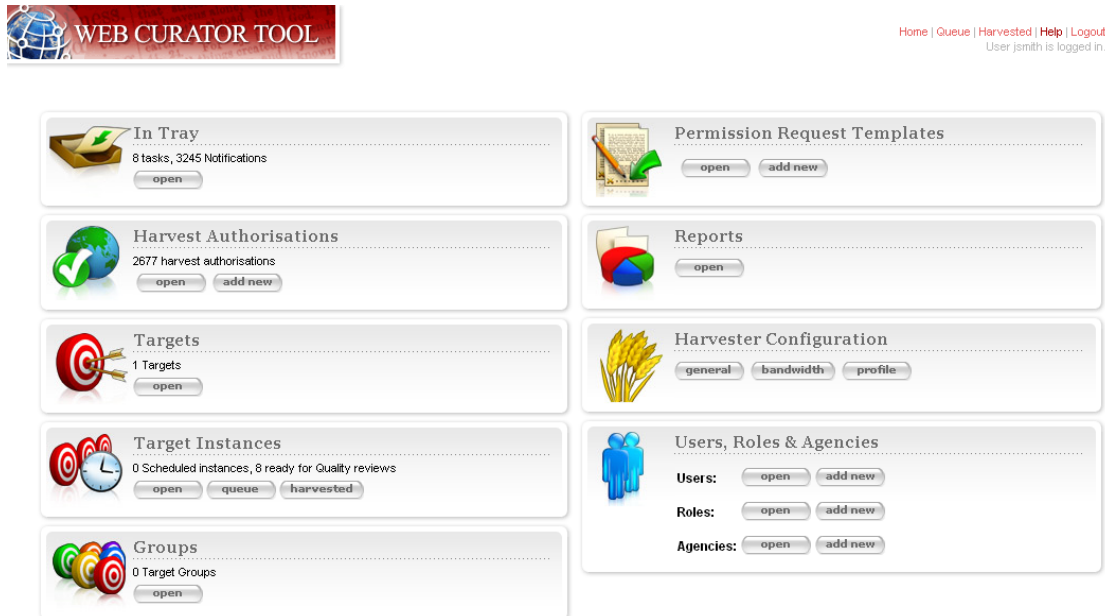


Figure 1. Home Page

The left-hand side of the homepage gives access to the functionality used in the selection and harvest process:

In Tray — view tasks that require action and notifications that display information, specific to the user

Harvest Authorisations — create and manage harvest authorisation requests

Targets — create and manage Targets and their schedules

Target Instances — view the harvests scheduled in the future and review the harvests that are complete

Groups — create and manage collections of Targets, for collating meta-information or harvesting together

The right-hand side of the homepage gives access to administrative functions:

Permission Request Templates — create templates for permission request letters

Reports — generate reports on system activity

Harvest Configuration — view the harvester status, configure time-based bandwidth restrictions (how much content can be downloaded during different times of the day or week) and harvest profiles (such as how many documents to download,

whether to compress them, delays to accommodate the hosting server, etc.)

Users, Roles & Agencies — create and manage users, agencies, roles, and privileges.

*The functions that display on the **Web Curator Tool Home Page** depend on the user's privileges.*



Harvest Authorisations

Introduction

When you harvest a website, you are making a copy of a published document. This means you must consider copyright law when you harvest material, and also when you preserve it and when you make it accessible to users.

The Web Curator Tool has a sophisticated **harvest authorisation module** for recording your undertakings to copyright holders. Before you can harvest web pages, you must first confirm you are authorised to do so. The Web Curator Tool will record this information in its audit trail so that the person or agency that authorised a particular harvest can always be found. If you do not record who has authorised the harvest, the Web Curator Tool will defer the harvest until you confirm you are authorised.

In most cases, getting “harvest authorisation” means you must get permission from the website owner before you start the harvest. The Web Curator Tool lets you create harvest authorisation records that record what website or document you have requested permission for, who has authorised you to perform the crawl, whether you have been granted permission, and any special conditions.

Some institutions, such as national libraries, operate under special legislation and do not need to seek permission to harvest websites in their jurisdiction. The Web Curator Tool supports these organisations by allowing them to create a record that covers all such cases. See the section on **Legislative and other sources of information** below.

In other cases, your institution may decide to harvest a website before seeking permission, possibly because the target material is time-critical and it is in the public interest to capture it right away. In these cases, you must still record the entity who authorised the crawl, even if it is a person in your organisation, or even you yourself. This is also covered in the section on **Legislative and other sources of information** below.

Commercial search engines often harvest websites without seeking permission from the owners. Remember that these services do not attempt to preserve the websites, or to republish them, so have different legal obligations.

Terminology and status codes

Terminology

Important terms used with the Harvest Authorisation module include:

harvest authorisation — formal approval for you to harvest web material. You normally need the copyright holder's permission to harvest the website, and also to store it and make it accessible.

authorising agency — a person or organisation who authorises a harvest; often a website owner or copyright holder.

permission record — a specific record of a harvest authorisation, including the authorising agencies, the dates during which permissions apply and any restrictions on harvesting or access.

url pattern — a way of describing a URL or a set of URLs that a permission record applies to. For example, `http://www.example.com/*` is a pattern representing all the URLs on the website at `www.example.com`.

Permission record status codes

Each permission record has one of these status codes:

pending — the permission record has been created, but permission has not yet been requested.

requested — a request for permission has been sent to the authorising agency, but no response has been received.

approved — the authorising agency has granted permission.

rejected — the authorising agency has refused permission.

URL Patterns

URL Patterns are used to describe a portion of the internet that a harvest authorisation applies to.

In the simplest case, a URL can be used as a URL Pattern. In more complex cases, you can use the wildcard `*` at the start of the domain or end of the resource to match the permission to multiple URLs.

For example:

`http://www.alphabetsoup.com/*` —include all resources within the Alphabet Soup site (a standard permission granted directly by a company)

`http://www.alphabetsoup.com/resource/*` —include only the pages within the 'resource' section of the Alphabet Soup site

http://*.alphabetsoup.com/* —include all resources on all sub sites of the specified domain.

http://www.govt.nz/* —include all pages on the domain
www.govt.nz

http://*.govt.nz/* —include all NZ Government sites

http://*.nz/* —include all sites in the *.nz domain space (this can be used to supports a national permission based on government legislation)

How harvest authorisations work

Each harvest authorisation contain four major components:

A name and description for identifying the harvest authorisation, plus other **general information** such as an order number.

One or more **authorising agencies**, being the person or organisation who authorises the harvest. This is often a website owner or copyright holder. Some authorising agencies may be associated with more than one harvest authorisation.

A set of **url patterns** that describe the portion of the internet that the harvest authorisation applies to.

One or more **permission records** that record a specific permission requested from an authorising agency, including

- a set of URL patterns,
- the state of the request (pending, requested, approved, rejected),
- the time period the request applies to, and
- any special conditions or access restrictions (such as ‘only users in the Library can view the content’).

In most cases, only users with specific roles will be allowed to manage harvest authorisations. Unlike some other Web Curator Tool objects, harvest authorisations do not have an “owner” who is responsible for them.

Sample harvest authorisation

For example, to harvest web pages from ‘The Alphabet Soup Company’, you might create a harvest authorisation record called ‘Alphabet Soup’. This would include:

general information recording the company name and the library order number for this request:

- Name: ‘Alphabet Soup’

- Order Number: “AUTH 2007/03”

url patterns to identify the company’s three websites:

- <http://www.alphabetsoup.com/>*
- <http://www2.alphabetsoup.com/>*
- <http://extranet.alphabetsoup.com/>*

authorising agencies for the two organisations responsible for the content on these sites:

- The Alphabet Soup Company
- Food Incorporated.

permission records, linking each authorising agency with one or more URL patterns:

- The Alphabet Soup Company to approve restriction-free access, on an open-ended basis, to <http://www.alphabetsoup.com/>* and <http://www2.alphabetsoup.com/>*
- Food Incorporated to approve NZ-only access, for the period 1/1/2006 through 31/12/2006, to <http://www.alphabetsoup.com/>* and <http://www2.alphabetsoup.com/>.

Harvest authorisation search page

The harvest authorisation search page lets you find and manage harvest authorisations.

WEB CURATOR TOOL

Home | Queue | Harvested | Help | Logout
User jsmith is logged in.

In Tray **Harvest Authorisations** Targets Target Instances Groups Management

Harvest Authorisations

Search

ID: Name: Authorising Agent: Order No.: Agency: Show Disabled: ☐

URL Pattern: Permissions File Reference: Permissions Status: ☐ Pending ☐ Requested ☐ Approved ☐ Rejected

Results

Id	Name	Auth Agent	Order No	Status	Action
2260992	Political Parties	NZ Government		Approved	
3768321	test agency site 1a	(Not) Alan Milburn		Pending	

Results 1 to 2 of 2
Page 1 of 1
Rows per page: 50

In Tray | Harvest Authorisations | Targets | Groups | Target Instances | Reports | Management

Figure 2. Harvest Authorisations

At the top of the page are:

Fields to enter search criteria for existing harvest authorisation records (**Identifier, Name, Authorising Agency, Order Number, Agency, URL Pattern, Permissions File Reference** and **Permissions Status**), and a search button for launching a search.

Note: As of release 1.5.1 there is a new drop down list that allows the user to define a sort order for the returned results.

A button to **create new** harvest authorisation requests.

Below that are search results. For each harvest authorisation record found, you can:

- **View** details
- **Edit** details
- **Copy** the harvest authorisation and make a new one.
- **Generate a permission request letter.**

The first time you visit this page, all the active harvest authorisations for the user's Agency are shown. You can then change the search parameters. On subsequent visits, the display is the same as the last harvest authorisation search.

Note that, as of release 1.3 of the software, all search pages that present the search results in a 'page at a time' fashion have been modified so that the user can elect to change the default page size from 10 to 20, or 50 or even 100! The user's preference will be remembered across sessions in a cookie.

How to create a harvest authorisation

From the Harvest Authorisations search page:

- 1 Click **create new**.

The **Create/Edit Harvest Authorisations** page displays:

The screenshot shows the 'WEB CURATOR TOOL' interface. At the top, there's a navigation bar with links: Home, Queue, Help, Logout. Below this, a user status bar indicates 'User jsmith is logged in.' The main navigation tabs are 'In Tray', 'Harvest Authorisations' (selected), 'Targets', 'Target Instances', 'Groups', and 'Management'. The 'Harvest Authorisations' page has a sidebar with a globe icon and a main content area. The main content area has tabs for 'General', 'URL Patterns', 'Authorising Agencies', and 'Permissions'. The 'General' tab is active, showing a form with the following fields: 'Title' (containing 'Political Parties'), 'Description' (containing 'Permission to harvest political party websites in New Zealand'), 'Order No.' (empty), 'Published' (checkbox), and 'Enabled' (checkbox, checked). Below these is an 'Annotations' section with a text area and an 'add' button. At the bottom, there's a table with columns 'Date', 'User', 'Notes', and 'Action'. The table is currently empty, with a message 'There are no annotations available.'

Figure 3. Create/Edit Harvest Authorisations

The page includes four tabs for adding or editing information on a harvest authorisation record:

General — general information about the request, such as a name, description and any notes

URLs — patterns of URLs for which you are seeking authorisation

Authorising Agencies — the persons and/or organisations from whom you are requesting authorisation

Permissions — details of the authorisation, such as dates and status.

Enter general information about the request

2 On the **General** tab, enter basic information about the authorisation request.

3 Note that as of release 1.5.1 there is a new display-only field which shows the Agency associated with the Harvest Authorisation.

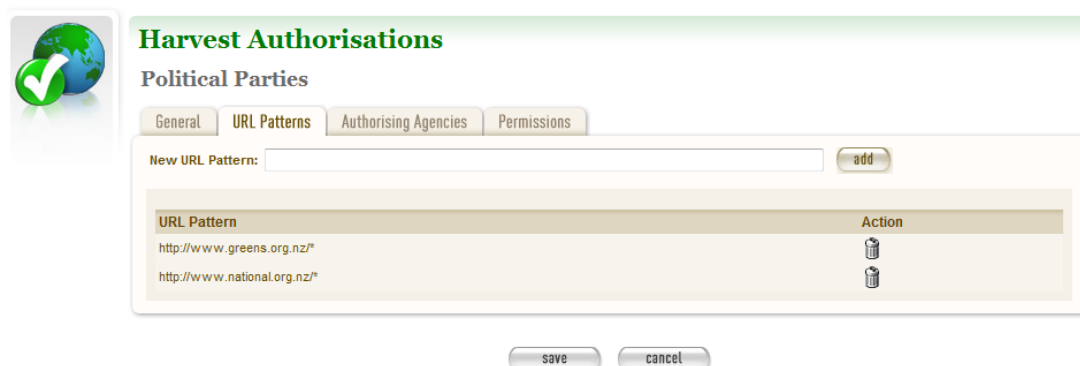
Required fields are marked with a red star. When the form is submitted, the system will validate your entries and let you know if you leave out any required information.

4 To add a note (annotation) to the record, type it in the Annotation text field and click **add**.

Enter URLs you want to harvest

5 Click the **URL Patterns** tab.

*The **URL Patterns** tab includes a box for adding URL patterns and a list of added patterns.*



Harvest Authorisations
Political Parties

General **URL Patterns** Authorising Agencies Permissions

New URL Pattern:

URL Pattern	Action
http://www.greens.org.nz/*	
http://www.national.org.nz/*	

Figure 4. URL Patterns tab

6 Enter a pattern for the URLs you are seeking permission to harvest, and click **add**. Repeat for additional patterns.

Enter agencies who grant permission

7 Click the **Authorising Agencies** tab.

*The **Authorising Agencies** tab includes a list of authorising agencies and buttons to search for or create new agencies.*



Figure 5. Authorising Agencies tab

8 To add a new agency, click **create new**.

The **Create/Edit Agency** page displays.

Figure 6. Create/Edit Agency

9 Enter the name, description, and contact information for the agency; and click **Save**.

The [Authorising Agencies tab](#) shows the added agency.

Create permissions record

10 Click the **Permissions** tab.

The **Permissions** tab includes a list of permissions requested showing the status, agent, dates, and URL pattern for each.




Figure 7. Permissions tab

11 Note that as of release 1.5.1 a new 'Date Requested' column is displayed on the permissions tab which will show the date that a permission request (email or printed template) was generated.

12 To add a new permission, click **create new**.

The **Create/Edit Permission** page displays.



Harvest Authorisations

Political Parties

Authorising Agent:

Dates: * to dd/mm/yyyy

Status:

Special Restrictions:

Copyright Statement:

Copyright URL:

Access Status:

Open Access Date:

Quick Pick: ☐

Display Name:

Urls: ☐ http://www.greens.org.nz/* *
☒ http://www.national.org.nz/* *

File Reference:

Assign Approval Task:

Exclusions

URL	Reason
<input type="text"/>	<input type="text"/>
<input type="button" value="add"/>	
No exclusions have been defined.	

Annotations

Date	User	Notes	Action
There are no annotations available.			

Figure 8. Create/Edit Permission

13 Select an agent, enter the dates you want to harvest, tick the URL patterns you want to harvest, enter special restrictions, etc.; and click **Save**.



The [Permissions tab](#) redisplay, showing the added permission.

14 Click **Save** to save the harvest authorisation request.

The harvest authorisation search page will be displayed.

After adding or editing a harvest authorisation record, you must save before clicking another main function tab (eg, Targets or Groups), or your changes will be lost.

How to send and/or print a permission request email

- 1 From the harvest authorisation search page, click  next to the harvest authorisation request.
- 2 In the next screen choose the template from the dropdown list against the appropriate URL and click 

The system generates and displays the letter or Email template (depending on the template chosen)

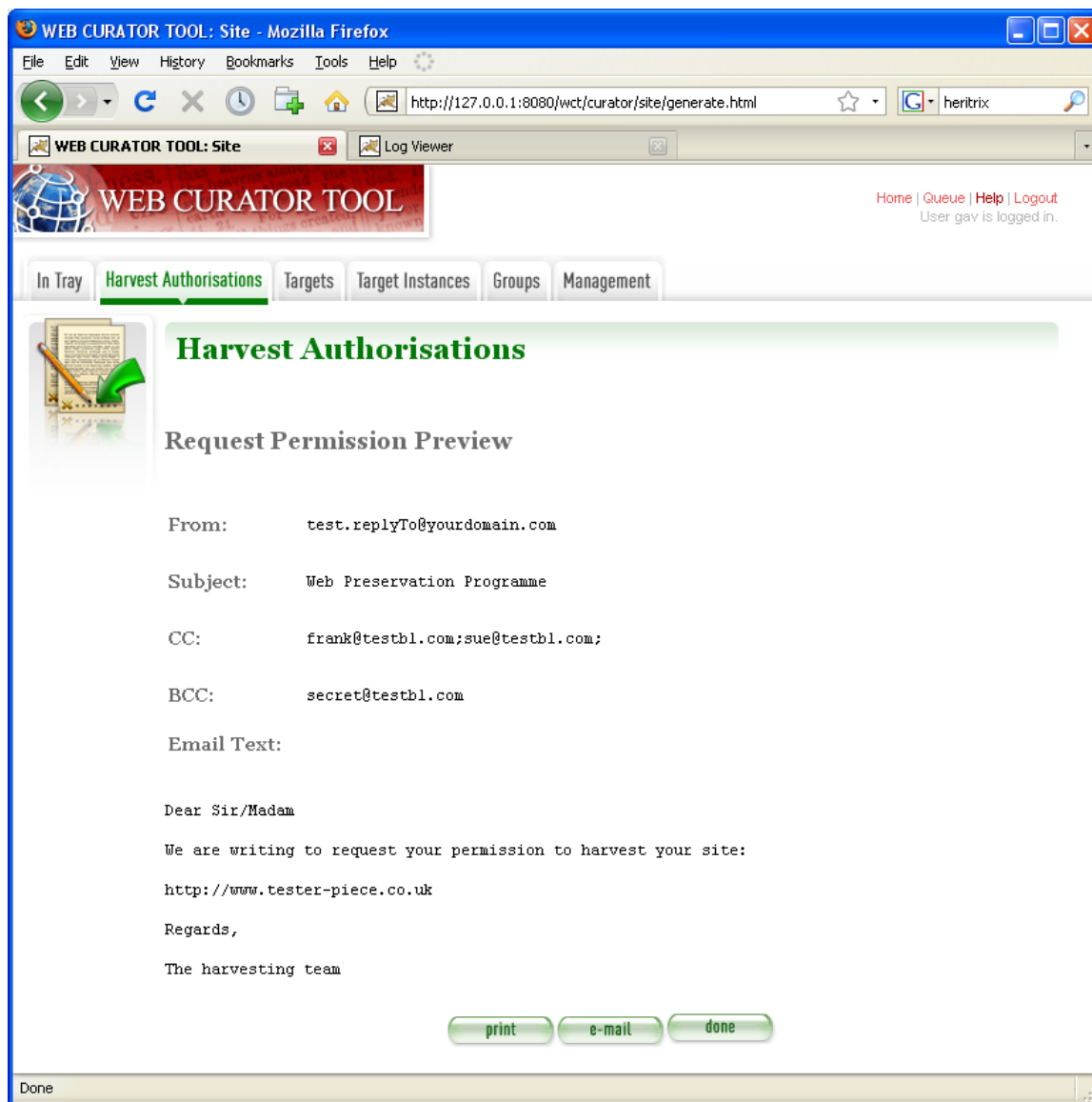


Figure 9. Email Permission Request Letter

- 3 Click to **print** or **e-mail** the letter to the agent. (print-only templates will only allow you to print)

*The system sends the letter and changes the permission status to **'requested'**.*

4 Click **Done**.


The Harvest Authorisations search page redisplays.

How to view or update the status of a permission record

Once permission has been granted (or declined)

When you hear back from the authorising agent that you are authorised to harvest the website, follow steps 1 through 5 below to change the Status of the permission record to 'approved' (if permission is granted) or 'rejected' (if permission is declined).



The authorising agent may also specify special conditions, which should be recorded in the permission record at this point.

1 From the harvest authorisation search page, click  next to the harvest authorisation request that includes the permission for which you sent the request letter.

*The **General** tab of the [Create/Edit Harvest Authorisations](#) page displays.*

2 Click the **Permissions** tab.

The [Permissions tab](#) displays.

3 Click  (View) or  (Edit) next to the permission for which you sent the request letter.

The [Create/Edit Permission](#) page displays.

4 If editing, you can change the **Status** of the permission to 'approved' or 'rejected' as necessary, and click **Save**.

5 Click **Save** to close the Harvest Authorisation.

How to edit or view a harvest authorisation

Editing an existing authorisation is very similar to the process for creating a new record.

To start editing, go to the harvest authorisation search page, find the harvest authorisation you wish to edit, and click the



Edit details

icon from the Actions column. This will load the harvest authorisation into the editor. Note that some users will not have access to edit some (or any) harvest authorisations.

An alternative to editing a harvest authorisation is to click the



— **View details**

icon to open the harvest authorisation viewer. Data cannot be changed from within the viewer. Once in the harvest authorisation viewer you may also switch to the editor using the ‘Edit’ button

Legislative and other sources of authorisation

Some national libraries and other collecting institutions have a legislative mandate to harvest web material within their national jurisdiction, and do not need to request permission from individual copyright holders. In other cases, the library might rely on some other source of authority to harvest material, or may choose to harvest before permission is sought then seek permission retroactively.

The Web Curator Tool requires that every Seed URL be linked to a permission record. When a library is specifically authorised to perform harvests by legislation, this can seem like a source of inefficiency, as no “permission” is really required.

However, the Web Curator Tool still requires a harvest record, so that the ultimate source of harvest authority is always documented and auditable.

When the tool is configured correctly, there should be no overhead in most cases, and very little overhead in other cases.

This is possible through two mechanisms. First, the use of broad URL Patterns allows us to create a permission record that is almost always automatically assigned to Seed URLs without requiring any user action. Second, the “Quick Pick” option in permission records makes the permission record an option in the menu used to associate seeds with permission records.

In practical terms, this means institutions can set up a single harvest authorisation that applies to all their harvesting of their national internet. It should be set up as follows:

general information should give the harvest authorisation a name that refers to the authorising legislation. For example:

- Name: “NZ e-legal deposit”
- Description: “All websites in the New Zealand domain acquired under legal deposit legislation”

url patterns should identify as much of the national website as possible. For example:

- `http://*.nz/*`

an authorising agency should describe the government that provided the mandate to harvest. For example:

- Name: “New Zealand Government”
- Contact: “National Librarian”
- Address: “National Library of New Zealand, Wellington”

a permission record should link the authorising agency with the URL patterns, as for other permission records. Some points to note:

- Dates: these fields should specify the date the legislation took (or takes) effect, and are typically open-ended.
- Status: Approved.
- Special restrictions / Access status: if your legislation places any restrictions on how the material may be harvested or access, record them here.
- **Quick Pick:** Selected.
- **Display Name:** The name used in the “Quick Pick” menu, such as “legal deposit legislation”.



Targets

Introduction

In the Web Curator Tool, the portion of the web you have selected for harvesting is called a **Target**.

In the simplest cases, a Target is a website: a single conceptual entity that focuses on a particular topic or subject area, and which is hosted on a single internet address. However, many Targets are much more complicated (or much simpler) than this:

A Target can be a single document, such as a PDF file.

A Target can be a part of a website, such as the Ministry of Education publications page, and all the PDF files it incorporates.

A Target can be a website distributed across several different hosts, such as the Turbine website, whose front page is hosted at <http://www.vuw.ac.nz/turbine>, and whose content is hosted on www.nzetc.org.nz.

A Target can be a collection of related websites, such as a set of political weblogs that provide discussion of a recent election.

A Target could be any combination of these.

A Target is often referred to as the **unit of selection**: if there is something desirable to harvest, archive, describe and make accessible, then it is a Target.

Terminology and status codes

Terminology

Important terms used with the Web Curator Tool include:

target — a portion of the web you want to harvest, such as a web site or a set of web pages. Target information includes crawler configuration details and a schedule of harvest dates.

seed or **seed url** — a starting URL for a harvest, such as the root address of a website. A harvest usually starts with a seed and includes all pages “below” that seed.

approval (of a target) — changing a Target into the **Approved** state. See the **How targets work** section below for an explanations of the implications of approval.

cancelled (of a target) — changing a Target into the **Cancelled** state. This has the effect of deleting all scheduled Target Instances associated with the Target.

Target status

Each Target has a status:

pending — a work in progress, not ready for approval

nominated — completed and ready for approval

rejected — rejected by the approver, usually because the Target was unsuitable or because it had an issue with permissions

approved — complete and certified as ready for harvest

complete — all scheduled harvests are complete

cancelled — the Target was cancelled before all harvests were completed

reinstated — the Target was reinstated from the complete, cancelled, or rejected state but is not yet ready for approval (equivalent to **pending**)

How targets work

Targets consist of several important elements, including a name and description for internal use; a set of Seed URLs, a web harvester profile that controls the behaviour of the web crawler during the harvest, one or more schedules that specify when the Target will be harvested, and (optionally) a set of descriptive metadata for the Target.

Seed URLs

The Seed URLs are a set of one or more URLs that form the starting point(s) for the harvest, and are used to define the scope of the harvest. For example, the Seed URL for the University of Canterbury website is <http://www.canterbury.ac.nz/> and (by implication) the website includes all the other pages on that server.

Each Seed URL must be linked to at least one current, approved permission record before any harvests can proceed for the Target.

Schedules

A Schedule is added to a Target to specify when (and how often) the Target will be harvested. For example, you may want a Target to be harvested every Monday at midnight, or on the first of every month at 5AM, or every day at Noon for the next two weeks. Alternatively, you can request that a Target be harvested only once, as soon as possible. Multiple schedules can be added to each Target.

Nomination

After a Target has been created, has its Seed URLs added, has a schedule attached, and has all the other necessary information set, it is changed into the Nominated state. This indicates that the owner believes the Target is ready to be harvested.

Approval

A nominated Target must be **Approved** before any harvests will be performed.

Approving a Target is an action that is usually reserved for senior users, as it has several implications and consequences. First, approving a Target is a formal act of selection: the Approver is saying that the Target is a resource that the Library wishes to collect. Second, approving a Target is an act of verification: the Approver is confirming that the Target is correctly configured, that its schedule is appropriate, and that its permissions do authorise the scope and frequency of the scheduled harvests. Finally, approving a Target as a functional aspect: it tells the Web Curator Tool to add the scheduled harvests to the Harvest Queue.

Completion, Cancellation, and Reinstatement

When all the harvests scheduled for a Target have finished, the Target automatically changes from the Approved state to the Completed state. Targets cannot be edited in the Completed state.

Sometime a user will change the state of an Approved Target to Cancelled before all the harvests are complete. This means that all scheduled harvests will be deleted. Targets cannot be edited in the Cancelled state.

Some users will have access to change a Completed or Cancelled Target to the Reinstated state, at which point they can edit the Target (for example, attaching a new schedule) and nominate it for harvest again.

Target search page

You manage Targets from the **Target search** page:

Targets

Search

ID: Name: Seed: Agency: User:

Member of: State: ☐ Pending ☐ Reinstated ☐ Nominated ☐ Rejected ☐ Approved ☐ Cancelled ☐ Completed

Results

Id	Name	Agency	Owner	Status	Seeds	Action
293507	68 Dean Street	The British Library	John Smith	Approved	http://www.sixty8.com	
291657	ARC	The British Library	John Smith	Approved	http://arc.co.uk/	
3342336	National Party	The British Library	John Smith	Pending	http://www.national.org.nz/	

Results 1 to 3 of 3
Page 1 of 1
Rows per page: 20

Figure 10. Target search page

At the top of the page are:

fields to search for existing targets by **ID**, **Name**, **Seed URL**, **Agency**, **User**, **Member of**, **Status**, and other fields

Note that as of release 1.5.1 the search panel contains two new controls; firstly a drop down list allowing the user to control the sort order of the search results - and secondly, a check box which allows the user to choose whether or not to display targets that are flagged as Non-Display (normally hidden).

a button to **create new** Targets




You can enter search terms in any or all of the textboxes and menus, and select any number of states. All the text boxes contain simple text strings, except for Seed (URLs) and ID (Target ID numbers).

Search criteria will be combined as an AND query and the matching records retrieved. The default search is for Targets that you own.

Searches in text boxes are case-insensitive, and match against the prefix of the value. For example, a search for "computer" in the name field might return Targets named "Computer warehouse" and "Computerworld", but not "Fred's computer".

You can perform wildcard characters to perform more complex text matches. The percent (%) character can be used to match zero or more letters, and the underscore (_) to match one character. So, for example, a search for "%computer" would match "Computer warehouse" and "Computerworld" and "Fred's computer"

Below that are search results, with options to:

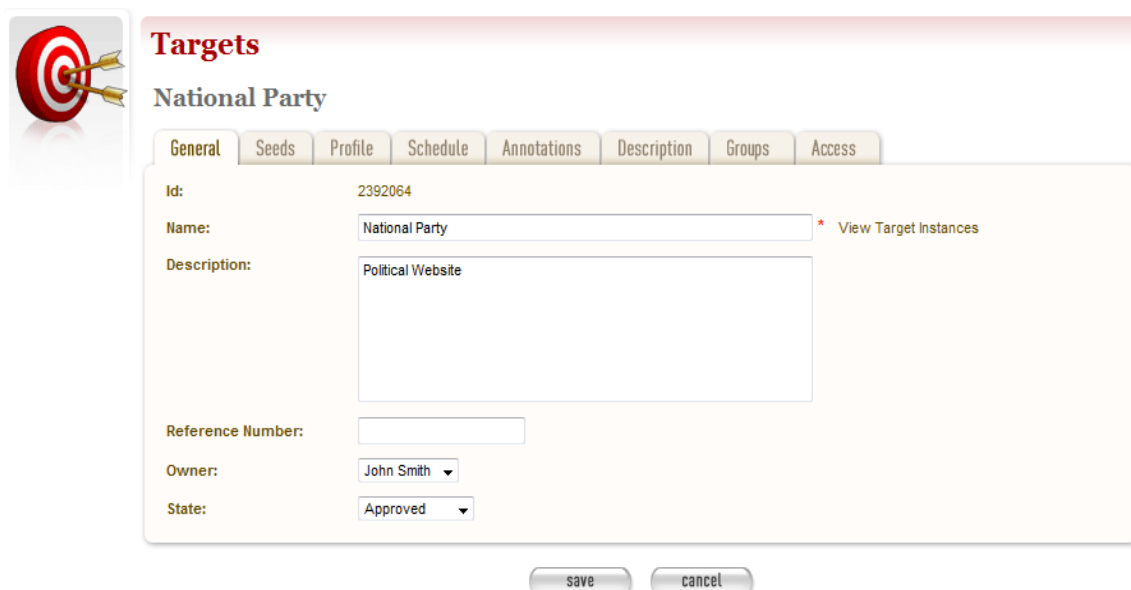
-  — **View** the Target
-  — **Edit** the Target
-  — **Copy** the Target and create a new one

How to create a target

From the [Targets](#) page,

- 1 Click **create new**.

The **Create/Edit Targets** page displays.



The screenshot shows the 'Targets' page with a target icon on the left. The main form is titled 'National Party' and has tabs for 'General', 'Seeds', 'Profile', 'Schedule', 'Annotations', 'Description', 'Groups', and 'Access'. The 'General' tab is active, showing fields for 'Id' (2392064), 'Name' (National Party), 'Description' (Political Website), 'Reference Number', 'Owner' (John Smith), and 'State' (Approved). There are 'save' and 'cancel' buttons at the bottom.

Figure 11. Create/Edit Targets

The **Create/Edit Targets** page includes several tabs for adding or editing information about Targets:

General — general information about the Target, such as a name, description, owner, and status

Note that the screen shot above does not show the Run on Approval check box that was added around release 1-4

Seeds — base URLs for websites to harvest

Profile — technical instructions on how to harvest the Target

Schedule — dates and times to perform the harvest

Annotations — notes about the Target

Description — metadata about the Target

Access — settings regarding access to the harvested Target

Enter general information about the target

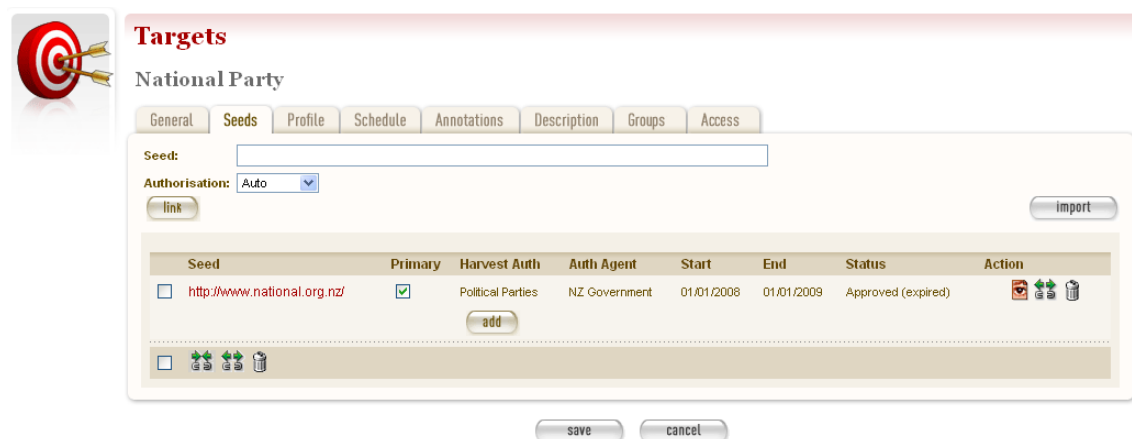
2 On the **General** tab, enter basic information about the Target. When editing an existing Target, a 'View Target Instances' link is displayed to the right of the 'Name' field. Clicking this link displays the Target Instances screen with all Target Instances matching the Target name.

The Required fields are marked with a red star. When the form is submitted, the system will validate your entries and let you know if you leave out any required information.

Enter the sites you want to harvest

3 Click the **Seeds** tab.

The **Seeds** tab includes a box for adding the base URL of each web site you want to harvest and list of previously added seeds.



The screenshot shows the 'Targets' application interface. At the top, there's a red target icon and the title 'Targets'. Below it, the target name 'National Party' is displayed. A series of tabs are visible: 'General', 'Seeds' (which is selected), 'Profile', 'Schedule', 'Annotations', 'Description', 'Groups', and 'Access'. The 'Seeds' tab contains a 'Seed' input field, an 'Authorisation' dropdown menu set to 'Auto', and a 'link' button. To the right is an 'import' button. Below these is a table with columns: 'Seed', 'Primary', 'Harvest Auth', 'Auth Agent', 'Start', 'End', 'Status', and 'Action'. The table contains one entry with the seed 'http://www.national.org.nz/', which is marked as 'Primary' and 'Approved (expired)'. Below the table is an 'add' button. At the bottom of the form are 'save' and 'cancel' buttons.

Seed	Primary	Harvest Auth	Auth Agent	Start	End	Status	Action
<input type="checkbox"/> http://www.national.org.nz/	<input checked="" type="checkbox"/>	Political Parties	NZ Government	01/01/2008	01/01/2009	Approved (expired)	

Figure 12. Seeds tab

4 Enter the root URL of a website for this Target.

5 Select a permission record (or records) that **authorise** you to harvest the seed:

- **Auto** will automatically find all permission records whose URL Patterns match the seed.
- **Add Later** enters the seed without to any permissions (the Target cannot be Approved until a permission is added).

- Other options that are **Quick Picks**. See the harvest authorisation section for directions on how to create these.

6 Click **link**. Repeat for additional sites.

The seed displays in the list below.

You can also use the **Import** button to import a precompiled list of seeds from a text file. The text file should have one URL per line.

The multiple selection bar at the bottom of the list allows you to link, unlink and delete multiple selected seeds.

Select a profile and any overrides

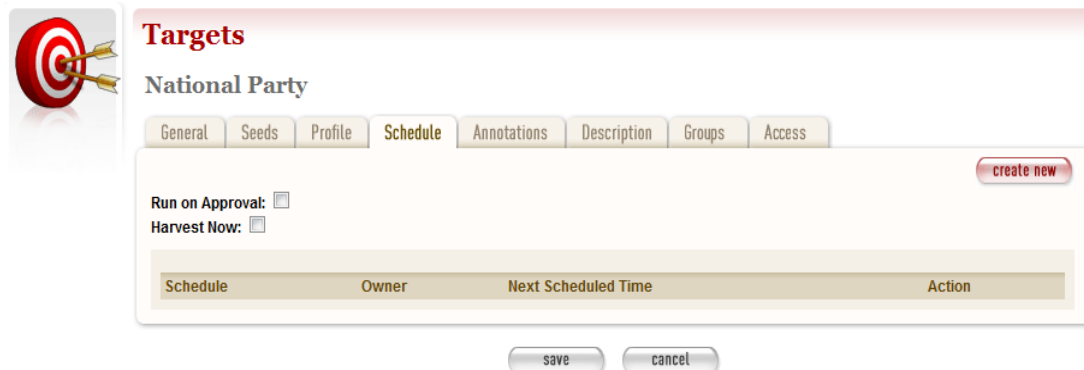
7 Click the **Profile** tab.

The Profile tab includes a list of harvest profiles, and a series of options to override them. Generally, the default settings are fine.

Enter a schedule for the target

8 Click the **Schedule** tab.

*The **Schedule** tab includes a list of schedules and a button to create a new schedule.*



Targets

National Party

General Seeds Profile **Schedule** Annotations Description Groups Access

Run on Approval: ☐
Harvest Now: ☐

create new

Schedule	Owner	Next Scheduled Time	Action
----------	-------	---------------------	--------

save cancel

Figure 13. Schedule tab

9 Click **create new**.

*The **Create/Edit Schedule** page displays fields for entering a schedule.*

Targets
National Party

From Date: 19/09/2006
To Date:
Type: Custom
Minutes: 00
Hours: 23
Days of Week: MON
Days of Month: ?
Months: *
Years: 2006

Next 10 Scheduled Times

- 25/09/2006 23:00:00
- 02/10/2006 23:00:00
- 09/10/2006 23:00:00
- 16/10/2006 23:00:00
- 23/10/2006 23:00:00
- 30/10/2006 23:00:00
- 06/11/2006 23:00:00
- 13/11/2006 23:00:00
- 20/11/2006 23:00:00
- 27/11/2006 23:00:00

test

save cancel

Figure 14. Create/Edit Schedule

10 Enter **From** and **To** dates for when the harvest will run; select a **Type** of schedule, eg 'Every Monday at 9:00pm' or 'Custom' — if you select 'Custom', enter details of the schedule; and click **Save**.

Annotations

11 Click the **Annotations** tab.

The **Annotations** tab allows you to record internal and selection information about the Target. The Annotations are intended for internal use, but are included in submissions to archives.

Annotations can be modified or deleted after creation by the user who created them. When an annotation is modified, the annotation date is automatically updated to the time of modification.

Description

12 Click the **Description** tab.

The **Description** tab includes a set of fields for storing Dublin Core metadata. This not used in the Web Curator Tool, but is included when any harvests are submitted to a digital archive.

Groups

13 Click the **Groups** tab.

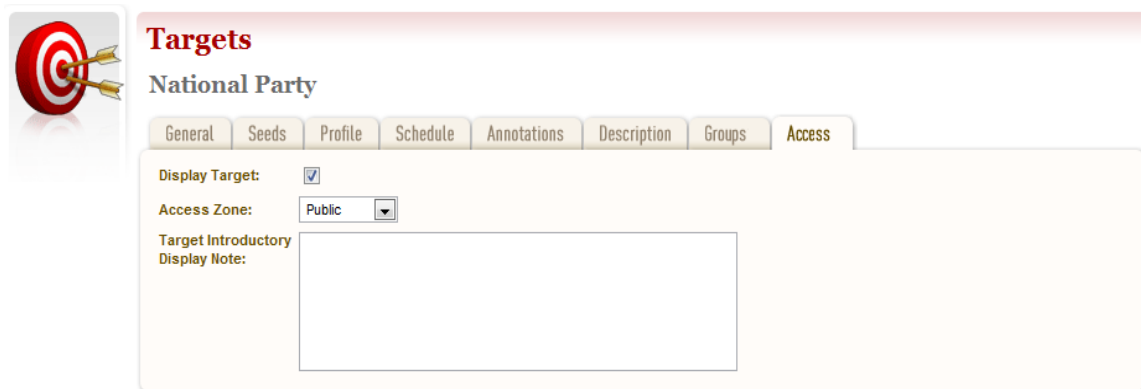
The **Groups** tab allows you to add Targets to Web Curator Tool groups, such as collections, events or subjects. See the chapter on Groups for more information.

Access

14 Click the **Access** tab.

The **Access** tab allows you to specify a Display Target flag, Display Notes and an Access Zone from

- Public(default)
- Onsite
- Restricted



The screenshot shows a web interface for managing targets. On the left is a red target icon with three arrows. The main header is 'Targets' in red, followed by 'National Party' in blue. Below this is a row of tabs: General, Seeds, Profile, Schedule, Annotations, Description, Groups, and Access. The 'Access' tab is selected. The form contains three fields: 'Display Target:' with a checked checkbox, 'Access Zone:' with a dropdown menu set to 'Public', and 'Target Introductory Display Note:' with a large empty text area.

Figure 15. Access Tab

Save the completed target

15 Click **save** at the bottom of the page to save the target.

You should pay close attention to the State the Target is saved in. When you are creating a new record, it will be saved in the 'Pending' state.

How to edit or view a target

Editing an existing authorisation is very similar to the process for creating a new record.

To start editing, go to the Target search page, and click the



Edit details

icon from the Actions column. This will load the relevant Target editor. Note that some users will not have access to edit some (or any) Targets.

An alternative to editing a Target is to click the



— **View details**

icon to open the Target viewer. Targets cannot be changed from within the viewer. Once in the Target viewer you may also switch to the editor using the 'Edit' button

How to nominate and approve a target

When you are creating a new record, it will be saved in the 'Pending' state. This means that the Target is a work in progress, and not ready for harvesting.

When the record is complete, you should **nominate** it for harvesting. This signals to the other editors that your target is ready for Approval.

An editor who has permission to approve targets will then review the Target and make sure it is entirely correct, that it has the right Seed URLs, that its permissions are present and correct, and that its schedule is appropriately configured. They will then **approve** the Target (which means that Target Instances will be created and harvests will proceed).

Nominating

- 1 Open the Target in Edit mode.

*The **General** tab will be displayed, and the **State** of the Target will be set to **Pending**.*

- 2 Change the state to **Nominated**.

- 3 Click **save** at the bottom of the page to save the Target.

Approval

- 4 Open the Target in Edit mode.

*The **General** tab will be displayed, and the **state** of the Target will be set to **Nominated**.*

- 5 Change the state to **Approved**.

- 6 Click **save** at the bottom of the page to save the Target.

A set of Target Instances representing harvests of the Target will be created.

Users with permission to Approve Targets will be able to set the state of a new target to Approved without going through the Nominated state.

How to delete or cancel a target

Targets can be deleted, but only if they have no attached Target Instances.

However, once a Target Instance enters the Running (or Queued) state, it can no longer be deleted from the system. In other words, a Target cannot be deleted if it has been harvested (even if that harvest was unsuccessful). This restriction is necessary so that the Web Curator Tool retains a record of all the harvests attempted in the tool in case it is needed later for audit purposes.

Targets that are no longer required should be left in the **Cancelled** state. Targets whose scheduled harvests have all been completed will be changed to the **Completed** state. Both cancelled and completed targets can be changed to the **Reinstated** state and re-used.



Target Instances and Scheduling

Introduction

Target Instances are individual harvests that are scheduled to happen, or that are currently in progress, or that have already finished. They are created automatically when a Target is **Approved**.

For example, a target might specify that a particular website should be harvested every Monday at 9pm. When the target is Approved, a Target Instance is created representing the harvest run at 9pm on Monday 24 July 2006, and other Target Instances are created for each subsequent Monday.

Terminology and status codes

Terminology

Important terms used with the Web Curator Tool include:

target instance — a single harvest of a Target that is scheduled to occur (or which has already occurred) at a specific date and time.

Queue or harvest queue — the sequence of future harvests that are scheduled to be performed.

harvest — the process of crawling the web and retrieving specific web pages.

harvest result — the files that are retrieved during a **harvest**.

quality review — the process of manually checking a **harvest result** to see if it is of sufficient quality to archive.

Target instance status

Each Target Instance has a status:

scheduled — waiting for the scheduled harvest date and time.

queued — the scheduled start time has passed, but the harvest cannot be run immediately because there are no slots available on the harvest agents, or there is not enough bandwidth available.

running — in the process of harvesting.

stopping — harvesting is finished and the harvest result is being copied to the digital asset store (this is a sub-state of **running**).

paused — paused during harvesting.

aborted — the harvest was manually aborted, deleting any collected data.

harvested — completed or stopped; data collected is available for review

endorsed — harvested data reviewed and deemed suitable for archiving

rejected — harvested data reviewed and found not suitable for archiving (ie, content is incomplete or not required)

archiving — in the process of submitting a harvest to the archive (this is a sub-state of **archived**).

archived — harvested content submitted to the archive.

How target instances work

Target Instances are created when a Target is approved.

Scheduling and Harvesting

Target Instances are always created in the **scheduled** state, and always have a Scheduled Harvest Date.

The scheduled Target Instances are kept in the Harvest Queue. Examining this queue (by clicking on the **queue** button on the homepage) gives you a good overview of the current state of the system and what scheduled harvests are coming up next.

When the scheduled start time arrives for a scheduled Target Instance, the Web Curator Tool makes a final check that the permission records for this harvest are valid. If the Target Instance is appropriately authorised, the harvest is started and the state of the Target Instance changes to **Running**.

When the harvest is complete, the Harvest Result is ready for quality review, and the Target Instance state is changed to **Harvested**.

Quality Review

When a harvest finishes, the Web Curator Tool notifies its owner, who has to Quality Review the harvest result to verify that the harvest was successful and that it downloaded all the necessary parts of the website.

Several tools are provided for supporting the quality review function, these are described in detail in the next chapter.

When the Target Instance owner has finished reviewing a harvest result, they must decide whether it is of acceptable quality for the digital archive. If it fails this test, the user marks the Target Instance as **rejected**, and the harvest result is deleted. No further action can be performed on the Target Instance, though the user can attempt to make adjustments to the scope of the Target in order to get a better result the next item it is harvested.

If the harvest result is successful, the user can **endorse** it to indicate that it is ready for inclusion in the digital archive.

Submitting a Harvest to the Digital Archive

Once a Target Instance has been Endorsed, it can be **submitted** to the archive for long-term storage and subsequent access by users. At this point, the harvest result leaves the control of the Web Curator Tool, and becomes the responsibility of the archive. The harvest result will eventually be deleted from the Web Curator Tool, but metadata about the Target Instance will be permanently retained.

Target instance search page

You manage Target Instances from the **Target Instance search page**:

Id	Name	Harvest Date	State	Owner	Run Time	Data Downloaded	Action
2490370	National Party	14/04/2008 23:00:00	Scheduled	J. Smith			
2490369	National Party	21/04/2008 23:00:00	Scheduled	J. Smith			
2490368	National Party	28/04/2008 23:00:00	Scheduled	J. Smith			
2523136	National Party	05/05/2008 23:00:00	Scheduled	J. Smith			
2850816	National Party	12/05/2008 23:00:00	Scheduled	J. Smith			

Figure 16. Target Instances

At the top of the page are fields to search for existing target instances by **ID**, **start date (From, To)**, **Agency**, **Owner**, **State**, Target **Name**, **Flagged** Target Instances and **State**.







Note that as of release 1.5.1 the search panel contains two new controls; firstly a drop down list allowing the user to control the sort order of the search results - and secondly, a check box which allows the user to choose whether or not to display targets that are flagged as Non-Display (normally hidden).

The search page remembers your last search and repeats it as the default search, with two exceptions. If you navigate to the Target Instance search page by clicking the “open” button on the homepage, it will show all the Target Instances that you own. And if you navigate to the page by clicking the “Queue” button on the homepage, or the “Queue” link at the top right of any page, it will show the Target Instances that make up the current harvest queue. If you navigate to the Target Instance search page by clicking the “harvested” button on the homepage, it will show all the Target Instances that you own that are in the ‘Harvested’ state, and if you navigate to the Target Instance search page from the Target General tab by clicking the “View Target Instances” link, it will show all the Target Instances that match the Target name. Once in the Target Instance viewer you may also switch to the editor using the ‘Edit’ button

The search results are listed at the bottom of the page. For each, you may have these options, depending on its state and your permissions:



— **View** the Target Instance

-  — **Edit** the Target Instance
-  — **Delete** a scheduled or queued Target Instance
-  — **Harvest** a scheduled Target Instance immediately
-  — **Pause** a running Target Instance
-  — **Stop** a running Target Instance and save its partial harvest result
-  — **Abort** a running Target Instance and delete its harvest result

Scheduling and the harvest queue

Target Instance Creation

Target Instances are created when a Target is **approved**. They are always created in the **scheduled** state, and always have a Scheduled Harvest Date (which is actually a date and time).

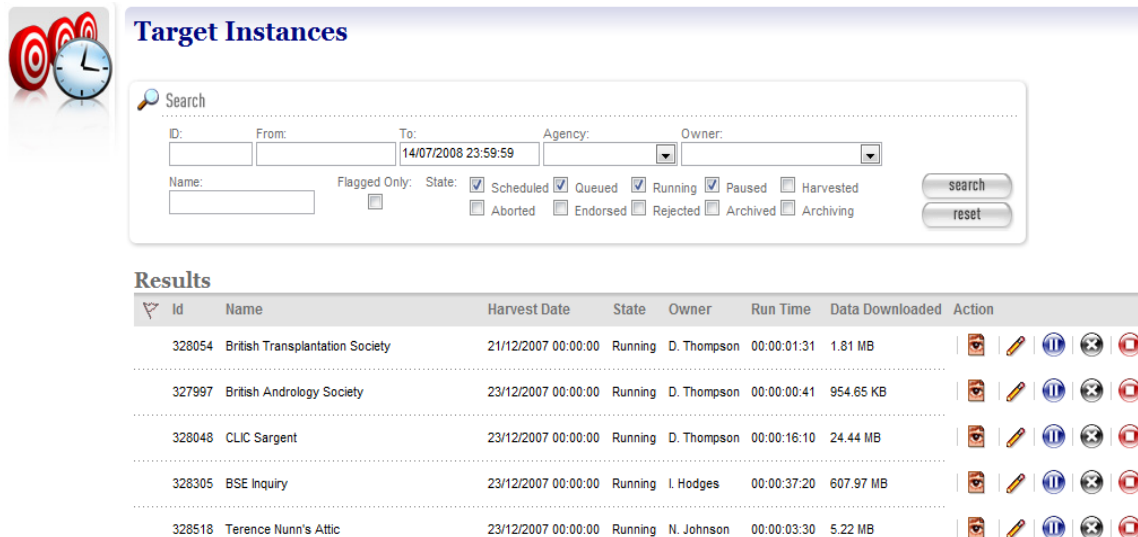
The Target Instances are created in accordance with the Target's Schedule (or Schedules). Target Instances will be created three months in advance of their scheduled harvest date (this period is configurable), and the first Target Instance is always scheduled (even if it is outside the three month window).

If the **Run on Approval** box is checked on the General Tab of the Target, then an additional Target Instance will be created with a Scheduled Harvest Date one minute in the future.

Examining the Harvest Queue

The Scheduled Target Instances are kept in the Harvest Queue. You can view the queue by clicking on the **queue** button on the homepage. It gives you a good overview of the current state of the system and what scheduled harvests are coming up next.

The queue view is shown in the figure below.



Target Instances

Search

ID: From: To: Agency: Owner:

Name: Flagged Only: ☐ State: ☒ Scheduled ☒ Queued ☒ Running ☒ Paused ☐ Harvested ☐ Aborted ☐ Endorsed ☐ Rejected ☐ Archived ☐ Archiving

Results

Id	Name	Harvest Date	State	Owner	Run Time	Data Downloaded	Action
328054	British Transplantation Society	21/12/2007 00:00:00	Running	D. Thompson	00:00:01:31	1.81 MB	
327997	British Andrology Society	23/12/2007 00:00:00	Running	D. Thompson	00:00:00:41	954.65 KB	
328048	CLIC Sargent	23/12/2007 00:00:00	Running	D. Thompson	00:00:16:10	24.44 MB	
328305	BSE Inquiry	23/12/2007 00:00:00	Running	I. Hodges	00:00:37:20	607.97 MB	
328518	Terence Nunn's Attic	23/12/2007 00:00:00	Running	N. Johnson	00:00:03:30	5.22 MB	

The queue view is actually just a predefined search for all the Target Instances that are Running, Paused, Queued (i.e. postponed), or Scheduled.

Figure 16. The harvest Queue, showing three harvests that are running concurrently, while two more Scheduled Target Instances are visible

Running a Harvest

When the scheduled start time arrives for a Scheduled Target Instance, the Web Curator Tool makes final checks that the permission records for this harvest are valid. If the harvest is appropriately authorised, then the Web Curator Tool will normally allocate it to one of the Harvest Agents, which invokes the Heritrix web crawler to harvest the site (as directed by the profile tab in the Target). The Target Instance State will be updated to **running**.

Some users may have the option of using the



— **Harvest** a Scheduled Target Instance immediately

icon to launch the harvest before its Scheduled Start Date arrives.

Queued Target Instances

Sometimes a harvest cannot be run because there is no capacity on the system: either the maximum number of harvests are already running, or there is no spare bandwidth available for an additional harvest.

In these cases, the Target Instance cannot be sent to the Harvest Agents. Instead, their state is updated to **queued**, and they remain in the Harvest

Queue. The harvest is run as soon as capacity becomes available on a Harvest Agent.

Deferring Target Instances

Sometimes a Target Instance is scheduled to run, but the Target it is based on has one or more permission records attached that are still in the pending state. In other words, permission has not (yet) been granted for this harvest.

In this situation, the Scheduled Start Date of the Target instance is moved forward by 24 hours (its state remains scheduled). At the same time, a notification is sent to the Target Instance owner to tell them the harvest has been **deferred**.

Deleting Target Instances

Only Target Instances in the Scheduled or Queued states can be deleted. A Target Instance in the Queued state may only be deleted if it has not yet begun to harvest. Queued Target Instances that have previously begun to harvest but have returned to the Queued state may not be deleted.

Once a Target Instance enters the Running state, it can no longer be removed from the system. This means we retain information about every crawl attempted by the Web Curator Tool in case we need it later for audit purposes.

A Scheduled Target Instance that is deleted will not be run.



When the state of a Target changes from Approved to any other state, then all its Scheduled Target Instances will be immediately deleted.

Some changes to Approved Targets (such as unlinking a permission record or updating a schedule) will automatically cause the state to change to Nominated. You will need to change the Target state back to Approved to re-create and Schedule the Target Instances


Harvested Target Instances

When the harvest is complete, the Harvest Result is transferred to the digital asset store, and the Target Instance state is changed to **Harvested**. At this point, it is no longer part of the Harvest Queue.

How to view or edit a target instance

- 1 From the Target Instance search page, click  to view a Target Instance, or  to edit a Target Instance.

*The **View/Edit Target Instance** page displays.*



Target Instances

National Party (2490369)

General Profile Harvest State Logs Harvest Results Annotations Display

Id: 2490369
 Target Name: National Party
 Schedule: 21/04/2008 23:00:00
 Priority: Normal
 Owner: John Smith
 Agency: Test Agency
 State: Scheduled
 Bandwidth Percentage:
 Flagged: ☒

save cancel

Figure 17. View/Edit Target Instance

The **View/Edit Target Instance** page includes six tabs for viewing, running, or editing information about a target instance:

General — general information about the Target Instance, such as the Target it belongs to, schedule, owner, agency, etc.

Profile — technical instructions on how to harvest the Target.

Harvest State — details of the harvest, for example total bandwidth and amount of data downloaded.

Logs — access to log files recording technical details of the harvest.

Harvest Results — access to harvested content with options to review, endorse, reject, and archive harvest results.


Annotations — notes about the Target Instance.

Display — settings regarding the eventual display of the Target Instance in a browsing tool.

How to review, endorse or submit a target instance

- 2 Open the Target Instance in Edit mode, and click the **Harvest Results** tab.

A list of target results displays.



Target Instances

National Party (294922)

General Profile State Logs Harvest Results Annotations Display

Date	User	Notes	State	Action
19/09/2006 15:30:17	J. Smith	Original Harvest		Review Endorse Reject

save cancel

Figure 178. Harvest Results tab

Quality Review

- 3** To review a result, click **Review**.

Quality Review is a complex task, and is covered separately in the next chapter.

Endorse or Reject harvest results

When you have finished reviewing a Target Instance, the **Done** button will return you to the harvest results page. At this point, you should know whether the harvest was successful, and should be **Endorsed**, or was unsuccessful, and should be **Rejected**.

- 4** To endorse the results, click **Endorse**.

- 5** To reject the results, click **Reject**.

Submit harvest results to an archive

Once you have endorsed a Target Instance, two new buttons appear that read '**Submit to Archive**' and '**Un-Endorse**'.

- 6** To archive an endorsed result, click **Submit to Archive**.

- 7** To un-endorse an erroneously endorsed instance, click **Un-Endorse**, this will set the target instance back to the **harvested** state.

*The Reject, Endorse, Un-Endorse and Submit to Archive links will automatically Save the Target Instance for you. You do not need to click on the **save** button after these operations (it won't hurt if you do).*



Target Instance Quality Review

Introduction

Target Instances are individual harvests that are scheduled to happen, or that are currently in progress, or that have already finished. See the previous chapter for an overview.

When a harvest is complete, the harvest result is saved in the digital asset store, and the Target Instance is saved in the Harvested state. The next step is for the Target Instance Owner to Quality Review the harvest result.

The first half of this chapter describes the quality review tools available when reviewing harvest results. The second half describes some problems that you may encounter when quality-reviewing harvest results in the Web Curator Tool, and how to diagnose and solve them. This includes detailed instructions and is intended for advanced users.

Terminology and status codes

Terminology

Important terms used with the Web Curator Tool include:

Target Instance — a single harvest of a Target that is scheduled to occur (or which has already occurred) at a specific date and time.

harvest — the process of crawling the web and retrieving specific web pages.

harvest result — the files that are retrieved during a **harvest**.

quality review — the process of manually checking a **harvest result** to see if it is of sufficient quality to archive.

live url — the real version of a URL that is used by the original website on the internet.

browse tool url — the URL of a page in the **browse tool** (the browse tool URL is different for different harvest results).

The browse tool URL is constructed as follows:

`http://wct.natlib.govt.nz/wct/curator/tools/browse/[Identifier]/[Live URL]`

where [Identifier] is usually the Target Instance identifier, but may be an internal harvest result identifier.

Opening quality review tools

To review a harvested Target Instance, open it in edit mode, then select the Harvest Results tab.

A list of Target results displays. If this is the first time you have reviewed this Target Instance, a single Harvest Result will be displayed.

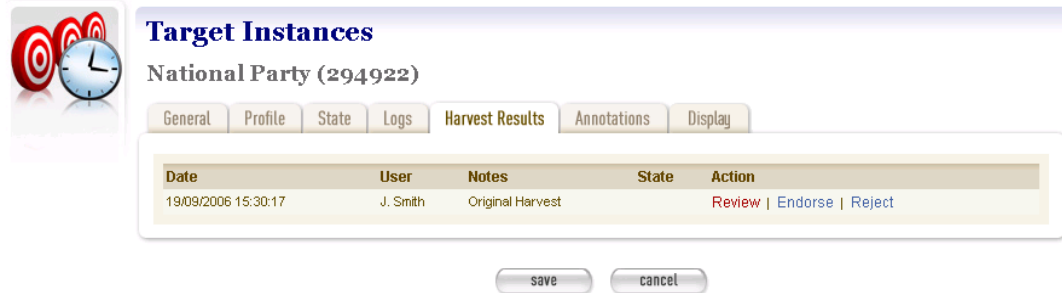


Figure 19. Harvest Results tab

To review a result, click Review. The next screen shows the available quality review tools.

Options for reviewing display.

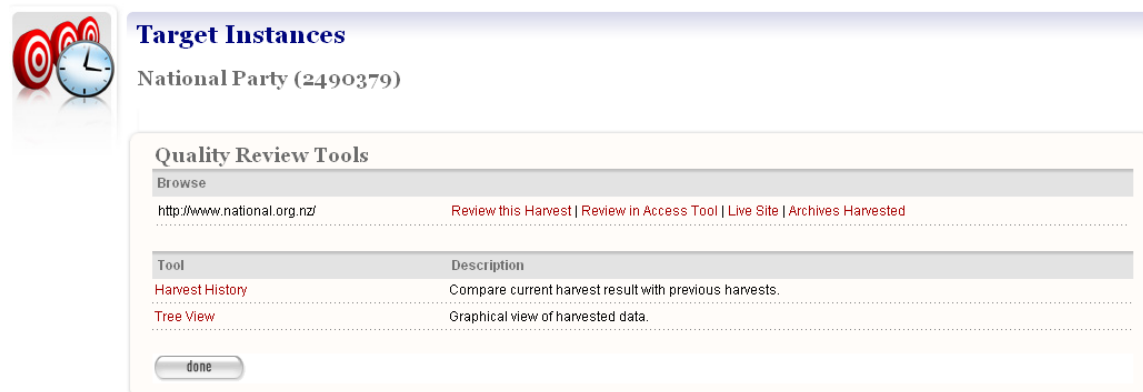


Figure 20. Review Options

Quality review with the browse tool

The **Browse Tool** lets the user interact with a version of the harvest result with their web browser. It is designed to simulate the experience the user would have if they visited the original website. If the harvest is successful, the harvested material offers a comparable user experience to the original material.

The tool is controlled with a set of options in the Browse section of the Quality Review Tools screen. The Seed URLs for the harvest are listed at left, with three possible actions on the right:

Review this Harvest — Open a view of the harvested Seed URL in a new window of your web browser. If this option is enabled it uses the internal WCT Browse Tool to generate the page.

Review in Access Tool — Open a view of the harvested Seed URL in a new window of your web browser. If this option is enabled it uses an external Access Tool¹ to generate the page.

Live Site — Open the original web page in a new window

Archived Harvests — Open any known archived versions of the site in a new window.

The **Review this Harvest** link is the main tool for quality review, as it lets you see what material has been harvested, and from browse from page to page as though you were on the main site.

The **Live Site** link is provided so you can quickly open the original site for a side-by-side comparison with the harvested version.

The **Archived Harvests** link lets you compare your harvest with previous harvests of the website. By default, the Web Curator Tool will open a list pages stored in the digital archive maintained by the Internet Archive, but you administrator can configure the tool to use your local archive instead.

Quality review with the harvest history tool

The **Harvest History Tool** is can be used to quickly compare the harvest result of the current harvest to the result of previous harvests of the same Target.

The harvest history tool showing a history of the harvest results for a website that has been harvested every week.

¹ The use of the Internet Archive's Java Wayback Machine as an access tool is described in [WCT 1.5 Wayback Sample.zip](#) which is available to download as part of the WCT 1.5GA release.



Target Instances

Turbine (7667713)

Id	Start Date	State	Data	URLs	URLs Failed	Elapsed Time	KB/s	Harvest Job Status
7667713	27/07/2007 22:00:06	Harvested	257.38MB	5003	282	4m36s		Finished - Maximum number of documents limit hit
7503873	20/07/2007 22:00:22	Harvested	201.87MB	5002	287	4m08s		Finished - Maximum number of documents limit hit
7340032	13/07/2007 22:00:25	Harvested	266.41MB	5002	257	3m41s		Finished - Maximum number of documents limit hit
7307273	06/07/2007 22:00:25	Harvested	216.65MB	5003	223	4m16s		Finished - Maximum number of documents limit hit
7307275	28/06/2007 12:41:28	Archived	203.88MB	5002	334	5m18s		Finished - Maximum number of documents limit hit
7307276	22/06/2007 22:00:18	Harvested	214.87MB	5003	291	4m33s		Finished - Maximum number of documents limit hit
7307272	15/06/2007 12:05:39	Harvested	164.98MB	4002	228	3m36s		Finished - Ended by operator
7307270	08/06/2007 22:00:35	Harvested	224.44MB	5003	277	6m14s		Finished - Maximum number of documents limit hit
7307278	08/06/2007 10:48:06	Harvested	237.76MB	5003	328	6m57s		Finished - Maximum number of documents limit hit
7307267	25/05/2007 22:00:33	Harvested	298.79MB	5002	100	1h21m54s		Finished - Maximum number of documents limit hit
7307279	18/05/2007 22:00:31	Harvested	194.09MB	5003	60	55m16s		Finished - Maximum number of documents limit hit

Figure 21. Harvest History.

The tool gives shows all the harvests, with the most recent first. This allows the user to compare current and previous statistics for the number of pages downloaded, the number of download errors, the amount of data, and other statistics.

Quality review with the prune tool

The **Prune Tool** gives you a graphical, tree-like view of the harvested data. It is a visualisation tool, but can also be used to delete unwanted material from the harvest.

A summary of the harvested web pages displayed in the prune tool. Note the <http://creativecommons.org/> entry has been expanded to show some site structure and two downloaded documents.



Target Instances

Turbine (7667713)

Resource	Status	Size	Total Resources	Total Success	Total Failed	Total Size
Harvest			4939	4682	257	256.15MB
http://apps.utdc.vuw.ac.nz/			88	85	3	1.74MB
http://blackboard.vuw.ac.nz/		302	19	19	0	51.20KB
http://careerhub.vuw.ac.nz/		302	55	53	2	328.47KB
http://ceed.vuw.ac.nz/		302	309	307	2	11.14MB
http://creativecommons.org/			2	1	1	8.55KB
http://creativecommons.org/images/			1	1	0	958B
http://creativecommons.org/images/public/			1	1	0	958B
http://creativecommons.org/images/public/somerrights20.png		200	1	1	0	958B
http://creativecommons.org/robots.txt		404	1	0	1	7.61KB
http://download.macromedia.com/			1	1	0	26B
http://eprints.rclis.org/			2	2	0	138.72KB
http://helicon.vuw.ac.nz/			1	1	0	26B
http://library.blackboard.com/			2	1	1	486.10KB
http://lists.vuw.ac.nz/			269	268	1	1.50MB
http://mail.student.vuw.ac.nz/		200	2	1	1	2.52KB

Prune Single Item Prune Single Item and Children view

Figure 22. Prune Tool

When the tool is opened, a series of rows is presented. The first row represents the complete harvest, and several additional columns are provided with additional data about the harvest.

Subsequent rows contain summary information about each of the websites visited during the crawl. These can be expanded to show the directories and files that were harvested from within the website. Note that each row may represent a page that was downloaded, or may represent a summary statistic, or may fulfil both roles.

On each row, the following statistics are presented:

- Status** — The HTTP status for an entry that was downloaded.
- Size** — The size (in bytes) of an entry that was downloaded.
- Total URLs** — The number of attempts to download documents from “within” this site or folder.
- Total Success** — The number of documents successfully downloaded from “within” this site or folder.
- Total Failed** — The number of documents unsuccessfully downloaded from “within” this site or folder.
- Total Size** — The number of bytes downloaded from “within” this site or folder.

Users can browse the tree structure and then view, prune or insert specific pages.

To view a page, select it in the display, and press the **view** button – it is also possible to see the hop-path for a specific item by clicking on the hop-path button.

To prune a page, or a set of pages:

- 1** Select the site, folder, or page that you want to prune
- 2** click Prune Single Item to remove just the highlighted page; or Prune Item and Children to remove the page and all the pages “within” it
- 3** Add a description of why you have pruned this page to the provenance note textbox (required).
- 4** Click Save.

The display returns to the [Harvest Results tab](#).

To insert a new page or missing item (such as a graphics file):

- Specify the full URL of the item as it should appear within the site harvest

- Specify the appropriate file location on disk or the appropriate external URL for the new item which is to be added and click on the appropriate Import button.

The log file viewer

Although it is not a quality review tool, the Web Curator Tool log file viewer can assist with quality review by letting you examine the log files for Target Instances that are running or harvested.

The log file viewer is launched from the Logs tab of the Target Instance edit pages, and by default the final 700 lines of the log are displayed. However, there are several advanced features.

View the entire file

Open a log in the Log File Viewer, then set the *Number of lines to display* field to 99999 and click the update button. This will show the entire log file (unless the harvest had more than 100,000 URLs).

View only the lines that contain a specified substring

The *regular expression filter* box can be used to restrict the lines that are displayed to only those that match a pattern (or “regular expression”).

For example:

- **To show only lines that include report.pdf:** Set the regular expression filter to `.*report.pdf.*` and press update. In the regular expression language, the dot (“.”) means “any character” and the star (asterisk, or “*”) means “repeated zero or more times. So “.*” (which is often pronounced “dot-star”) means any character repeated zero or more times, and the regular expression above means “show all the lines that have any sequence of characters, followed by “report.pdf”, followed by any other sequence of characters.
- **To find out whether a specific URL is in the crawl.log:** Suppose you want to see if <http://www.example.com/some/file.html> was downloaded. Open the crawl.log file in the Log File Viewer, enter the regular expression `.* http://www.example.com/some/file.html.*` and press update.

Diagnosing problems with completed harvests

Many harvest problems only become evident once a harvest is complete and loaded in the browse tool. For example, some images may not display properly, or some stylesheets may not be loaded, or some links may not work.

Diagnosis

In these cases, the general procedure is to

1. Determine the URL (or URLs) that are not working. Some good techniques are:
 - Go to the live site, and find the page that the missing URL is linked from. Find out the missing URL by
 - opening the document in the browser (applies to links, images) and reading the URL from the Location bar, or
 - by right-clicking on the missing object (images and links), or
 - by using view source to see the HTML (stylesheets), or
 - by using the Web Developer Toolbar to view CSS information (Stylesheets—see Tools section below).
2. Determine whether the harvester downloaded the URL successfully. Here are some of the ways you might do this (from simplest to most complex):
 - Open the Prune Tool and see if the URL is displayed. If the URL is not present, then it was **not downloaded** during the crawl.
 - Calculate the browse tool URL, and see if it can be loaded in the Browse Tool. If so, the URL was **downloaded successfully**.
 - Examine the crawl.log file in the Log File Viewer to see if the URL was harvested and what its status code was.
 - If the URL is not in the crawl.log file, the URL was **not downloaded**.
 - If the URL is in the crawl.log file with a status code indicating a successful download (such as 200, or some other code of the form 2XX) then the URL was **downloaded successfully**.
 - If the URL is in the crawl.log file with a status code indicating a failed download (such as -1) then there was a **download error**. Check the Heritrix status

codes are described in Section 4 below for information about what went wrong.

3. If the URL was **downloaded successfully** by the harvester but is not displaying, then there is a problem with the browse tool that needs to be fixed by an administrator or developer. The good news is that your harvest was (probably) successful—you just can't see the results.
 - Some common cases in Web Curator Tool version 1.1 (which are fixed in later versions) include:
 - web pages with empty anchor tags (SourceForge bug 1541022),
 - paths that contain spaces (bug 1692829),
 - some Javascript links (bug 1666472),
 - some background images will not render (bug 1702552), and
 - CSS files with import statements (bug 1701162).
 - You should probably endorse the site if:
 - there are relatively few URLs affected by the problem, or
 - the information on the site is time critical and may not be available by the time Web Curator Tool 1.2 is installed.
4. If the URL was **not downloaded** by the harvester, determine why:
 - It is possible that the crawl finished before the URL could be downloaded. Check to see if the state of the crawl (in the "Harvest State" tab of the Target Instance) says something like "Finished – Maximum document limit reached". To fix:
 - Increase the relevant limit for the Target using the Profile Overrides tab.
 - If this is a common problem, you may want to ask an administrator to increase the default limit set in the harvester profile.
 - It is possible that the URL is out of scope for the crawl. The most obvious case is where the URL has a different host. It is also possible that the harvester is configured to only crawl the website to a certain depth, or to a certain number of hops (i.e. links from the homepage). To fix:

- For resources on different hosts, you can adjust the scope for the crawl by adding a new (secondary) seed URL.
 - For path depth or hops issues, you can add a new secondary seed to extend the scope, or you can increase the relevant limit for the Target using the Profile Overrides tab.
 - It is possible that the URL appears on a page that the Heritrix harvester cannot understand.
 - URLs that appear in CSS, Shockwave Flash Javascript and other files will not be installed unless the harvest profile includes the correct “Extactor” plugin: ExtractorCSS, ExtractorSWF, ExtractorJS, etc. These will not be part of your profile (in WCT 1.1) unless your administrator adds them.
 - URLs that appear in new or rare page types may not be parsed.
 - It is possible that the URL does not appear explicitly on the page. For example, instead of linking to a URL directly, a Javascript function may be used to construct the URL out of several bits and pieces. To fix:
 - There may be no easy way to fix this problem, since it is extremely hard for the harvester to interpret every single piece of Javascript it encounters (though it does try).
 - If there are only one or two affected files, or if the affected files are very important, you can add the affected files as secondary seeds.
 - If you are very lucky, all the affected files might be stored in the same location, such as a single directory, which can be crawled directly with a single additional seed.
5. If the URL was not retrieved because of a **download error** then the Heritrix status code can be used to diagnose the problem.
- See http://crawler.archive.org/articles/user_manual/glossary.html#statuscodes for a list of Heritrix status codes.
 - A 500 (or other 5XX) status code indicates an internal server error. If you see 500 status codes when you download with Heritrix, but are able to browse successfully in your web browser, it may be that the website is recognising the web

curator tool and sending you errors (to prevent you from crawling the website). See the section on the Firefox User Agent Switcher below for information on diagnosing this problem. To resolve it, you can either negotiate with the web site administrator to allow you to harvest, or set up a profile that gives a false user agent string.

Common problems

Here are some common problems, and their solutions:

- **Formatting not showing up in the browse tool.** We most often see this when a CSS file has not been downloaded (due to an oversight by the crawler). To see if this is the real problem, use “View Source” in your browser to identify the missing CSS file (or files—some pages have several), then check whether it was really downloaded. If not, try adding the CSS file as a secondary seed URL in the target and re-harvesting.

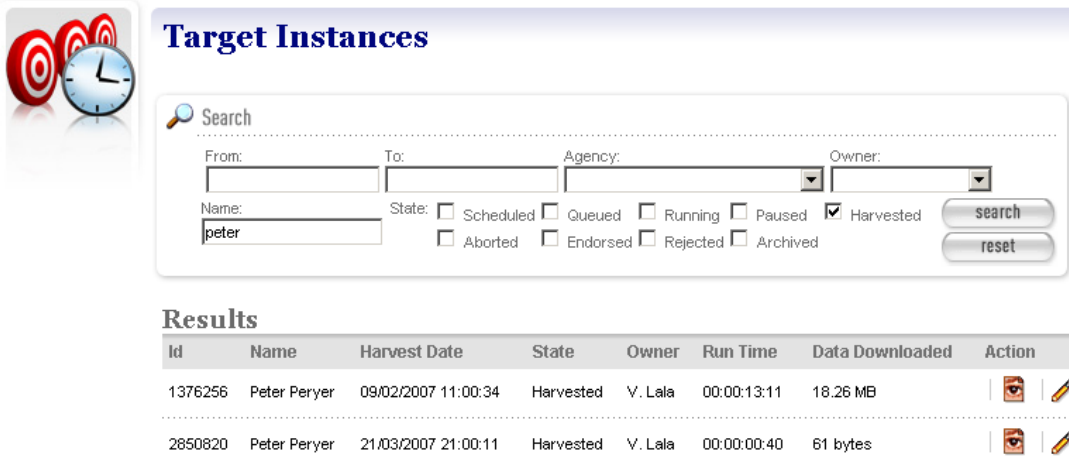
Diagnosing when too little material is harvested

Sometimes a fails to complete, or does not harvest as much material as you expected. This section describes some common causes of this problem.

When no material is downloaded (the “61 bytes” result)

In the screenshot below, the same website was harvested twice, and the quantity of data harvested fell from 18 MB to 61 bytes. This tells us that the second harvest has effectively failed.

Two harvests of the same website, undertaken a month apart, showing a dramatic change in the size of the harvest result.



Target Instances

Search

From: To: Agency: Owner:

Name: peter

State: ☐ Scheduled ☐ Queued ☐ Running ☐ Paused ☒ Harvested ☐ Aborted ☐ Endorsed ☐ Rejected ☐ Archived

search reset

Results





Id	Name	Harvest Date	State	Owner	Run Time	Data Downloaded	Action
1376256	Peter Peryer	09/02/2007 11:00:34	Harvested	V. Lala	00:00:13:11	18.26 MB	 
2850820	Peter Peryer	21/03/2007 21:00:11	Harvested	V. Lala	00:00:00:40	61 bytes	 

Figure 23: Target Instances that failed to complete.

In these cases, the general procedure is to

1. Open the Target Instance (in either mode) and check the Harvest State tab to verify that the crawl is in the “Finished” state.
2. If the Target Instance Harvest State tab does not show the Finished state, then a message will usually explain the problem.
3. Open the Logs tab and check whether any error logs have been created.
 - If there is a local-errors.log file, open it in the Log file viewer, and see what kind of errors are shown. Some examples:
 - Errors that include “Failed to get host [hostname] address from ServerCache” indicate that the harvester was unable to look up the hostname in DNS, which probably means there was an error connecting to the internet (it may also mean you

entered the URL incorrectly in the Target seed URLs).

When only the homepage is downloaded

In some cases a harvest may appear to work, but will result in only the homepage being visible in the browse tool. This can be because the seed URL you have entered is an alias to the “real” URL for the website.

For example, the screenshot below shows the crawl.log file for a harvest of the seed URL www.heartlands.govt.nz, which is successfully downloaded (third line) but contains only a redirect to the “real” version of the site at www.heartlandservices.govt.nz. This new web page is successfully downloaded (line 6), and all its embedded images and stylesheets are also downloaded (lines 7-19), but no further pages on www.heartlandservices.govt.nz are harvested because the site is out-of-scope relative to the seed URL.



The solution to this problem is to add the “real” site as a primary or secondary seed URL.

Diagnosing when too much material is harvested

Sometimes a harvest will complete, and will look right in the browse tool, but will appear to be far too large: either too many URLs were downloaded, or you harvested more data than you expected.

Too many URLs downloaded

Sometimes a harvest will be larger than expected, and will involve a large number of URLs. The harvest will often show the following status value in the Harvest Status tab of the Target Instance:

Finished - Maximum number of documents limit hit

It is possible that the harvester has become caught in a “spider trap” or some other unintended loop. The best way to investigate this problem is to go to the Target Instance Logs tab, and to view the crawl.log file. By default, this shows you the last 50 lines of the log file, and this is where the problem is most likely to be.

For example, one recent harvest downloaded 100,000 documents, and finished with the requests shown in this log file viewer window.

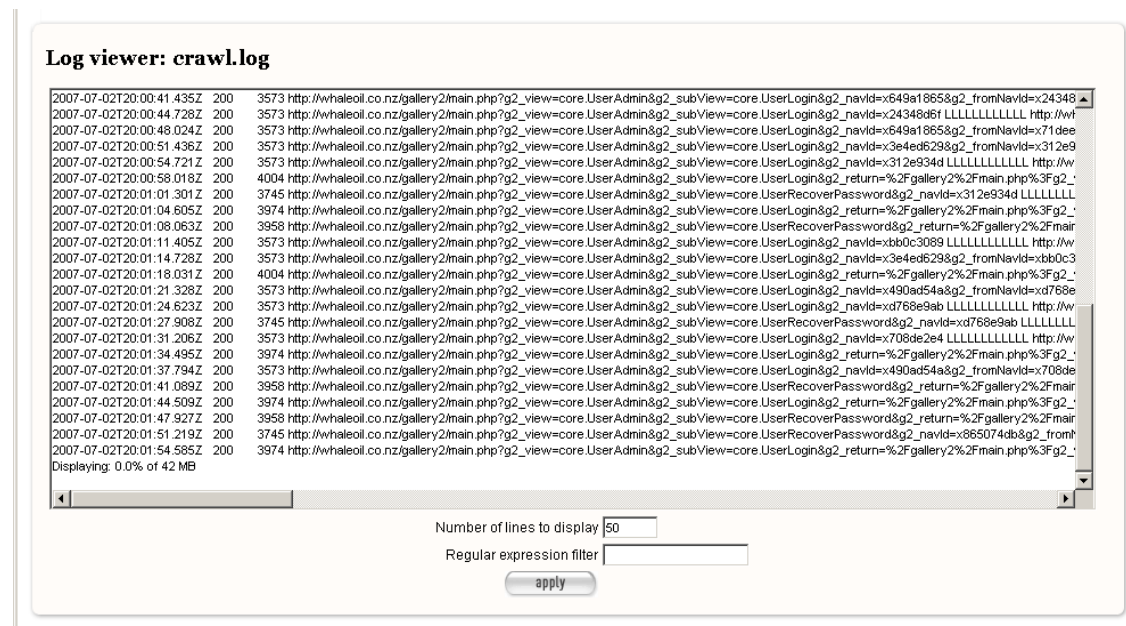


Figure 24: the log file viewer showing the crawl log.

Note that many of the requests are repeated calls to the CGI script <http://whaleoil.co.nz/gallery2/main.php> that include the parameters `g2_view=core.UserAdmin&g2_subView=core.UserLogin` or

`g2_view=core.UserAdmin&g2_subView=core.UserRecoverPassword` and that resolve to similar pages which have no real value to the harvest. These URLs are spurious and should not be harvested (and there are tens of thousands of them).

You can filter these URLs out of future harvests by going to the associated Target and opening the Profile tab and adding the following two lines to the "Exclude Filters" box:

```
.*g2_subView=core.UserLogin.*  
.*g2_subView=core.UserRecoverPassword.*
```

The first line will ensure that all URLs that match include the substring

g2_subView=core.UserLogin
will be excluded from future harvests, and the second line will do the
same for the “Recover Password” URLs.

Third-party quality review tools

The main tools used to diagnose harvest errors are your web browser, and the WCT Quality Review Tools: the Browse Tool and the Prune Tool. However, other tools that may be useful.

Web Developer Toolbar for Firefox

The Web Developer Toolbar for Firefox (<http://addons.mozilla.org/en-US/firefox/addon/60>) provides a toolbar (and a menu under Tools) in the Firefox web browser with numerous features for diagnosing problems with websites.

The full set of functionality is quite daunting, but these features can be very useful:

- **View the CSS information about a page:** Open the page in Firefox, then choose *View CSS* from the *CSS* menu. A new window (or tab) will be opened that lists all the stylesheets that were loaded in order to display the page, and which also show the contents of each of the stylesheets.
- **View the URL Path of each image in a page:** Open the page in Firefox, then choose *Display Image Paths* from the *Image* menu. Each image will have its URL path superimposed over the image. (Use the same menu to turn it off again.)
- **Get a list of all the links out of a page:** Open a page in Firefox, then choose *View Link Information* from the *Information* menu. A new window (or tab) will be opened that lists all the URLs that the page links to.

There are numerous other functions in the Web Developer Toolbar.

The Heritrix User Manual

The Heritrix User Manual includes a section that explains how to interpret Heritrix Log files—these are the same log files you see in the Web Curator Tool.

Useful sections include:

- **Interpreting crawl.log:** See Section 8.2.1 on this page: http://crawler.archive.org/articles/user_manual.html#logs
The section on interpreting the discovery path can be helpful: http://crawler.archive.org/articles/user_manual.html#discoverypath
- **Interpreting progress-statistics.log:** See Section 8.2.3 on this page: http://crawler.archive.org/articles/user_manual.html#logs
- **Interpreting Reports:** See Section 8.3: http://crawler.archive.org/articles/user_manual.html#reports

User Agent Switcher for Firefox

The User Agent Switcher add-on for Firefox (<https://addons.mozilla.org/en-US/firefox/addon/59>) provides a menu in the Firefox web browser that lets you tell Firefox to request a page but to identify itself as a different User Agent.

This is useful to identify those (thankfully rare) websites that give one sort of content to some web agents (such as web browsers like Firefox, Internet Explorer, and Safari), and other content to different web browsers (such as Heritrix, Googlebot, etc).

To test whether this is happening to you, configure the user agent switch to you the user agent used in the Web Curator Tool (by default, this is

Mozilla/5.0 (compatible; heritrix/1.8.0 +http://webcurator.sourceforge.net/) for version 1.2) and then attempt to browse the relevant site.



Groups

Introduction

Groups are a mechanism for associating two or more Targets that are related in some way. For example, a Group might be used to associate all the Targets that belong to a particular collection, subject, or event.

It is possible to create nested groups, where a specialised group (like Hurricanes) is itself a member of a more general group, (such as Natural Disasters).

Groups may have a start and end date. This can be used to define groups that are based on events, such as elections.

In many ways, Groups behave in a very similar way to Targets. They can have a name, a description, an owner, and can be searched for and edited. Groups can also be used to synchronise the harvest of multiple related Targets by attaching a schedule to the Group.

Target Instances inherit their group membership from Targets. When a Target Instance is submitted to an archive, its Target metadata is included in the SIP, including all Group information.

Terminology

Important terms used with the Web Curator Tool include:

group — a set of targets (or other groups) that are related in some way.

member — a group member is a target or group that belongs to the group.

expired — a group is said to have expired when its end date has passed.

Target status

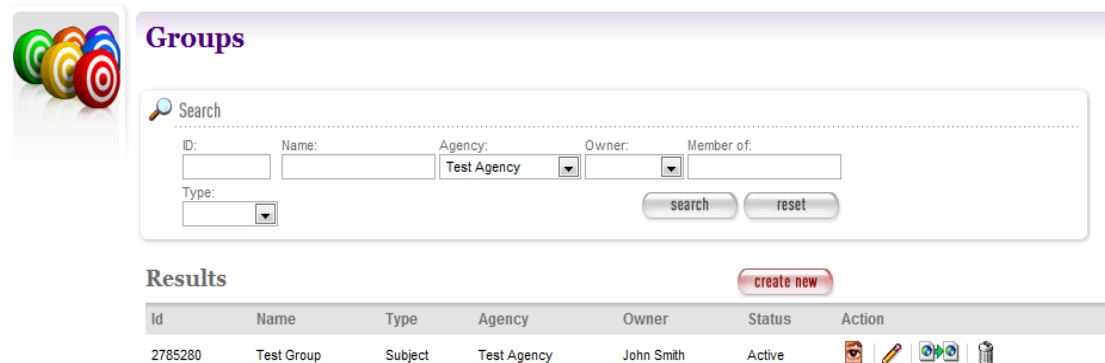
Each group has a status that is automatically calculated by the system:

schedulable — at least one of its members are approved, and therefore a schedule can be attached to this group.

unschedulable — no members of the group are approved, and therefore no schedule can be attached to this group.

Group search page

You manage Groups from the **Group search page**:



The screenshot shows the 'Groups' search interface. At the top left is a logo with four colorful target icons. The main heading is 'Groups'. Below it is a search form with fields for ID, Name, Agency (a dropdown menu showing 'Test Agency'), Owner, Member of, and Type. There are 'search' and 'reset' buttons. Below the search form is a 'Results' section with a 'create new' button. A table displays search results with columns: Id, Name, Type, Agency, Owner, Status, and Action. One result is shown: Id 2785280, Name Test Group, Type Subject, Agency Test Agency, Owner John Smith, Status Active. The Action column contains icons for View, Edit, Copy, and Delete.

Id	Name	Type	Agency	Owner	Status	Action
2785280	Test Group	Subject	Test Agency	John Smith	Active	





Figure 18. Group search page

At the top of the page are fields to search for existing groups by **ID**, **Name**, **Agency**, **Owner**, **Member Of**, and **Group Type**.

Note that as of release 1.5.1 a Non-Display Only control has been added to Groups search criteria to allow users to see Groups which have been flagged as hidden.

The search page remembers your last search and repeats it as the default search, initially defaulting to search based on your Agency only.

The search results are listed at the bottom of the page. For each, you may have these options, depending on its state and your permissions:

-  — **View** the Group
-  — **Edit** the Group
-  — **Copy** the Group and create a new one
-  — **Delete** the Group

How to create a group

From the [Groups](#) page,

7 Click **create new**.

*The **Create/Edit Groups** page displays.*

Figure 19. Create/Edit Groups

The **Create/Edit Groups** page includes several tabs for adding or editing information about Groups:

- General** — general information about the Group, such as a name, description, owner, and type
- Members** — Targets and Groups which are members of this Group
- Member Of** — Groups which this Group is a member of
- Profile** — technical instructions on how to harvest the Group
- Schedule** — dates and times to perform the harvest
- Annotations** — notes about the Group
- Description** — metadata about the Group
- Access** — settings regarding access to the harvested Group

Groups may have a start and end date. This can be used to define groups that are based on events, such as elections. This is particularly relevant to Target Instances, as some harvests of a given Target might belong to a group, while others may not, depending upon the date of the harvest and the interval of the Group.

When a start or end date is set, members are only considered part of the Group during that interval. Once the end date has passed, members are not considered to belong to the Group.

Enter general information about the target

8 On the **General** tab, enter basic information about the Group.

9 If the 'Sub-Group' type is selected in the 'Type' field, a 'Parent Group' field is displayed above the 'Name' field requiring selection of a parent group. Click the add button to add a parent Group.

The Required fields are marked with a red star. When the form is submitted, the system will validate your entries and let you know if you leave out any required information.

Add the members of the Group

10 Click the **Members** tab.

*The **Members** tab includes a list of member Targets and Groups and a button to add new members*



Figure 20. Members tab

11 Click the add button to search for previously created Targets and Groups by name to add to this Group.

12 Select one or more Targets and click the move button to move them to a different Group.

Select a profile and any overrides

13 Click the **Profile** tab.

The Profile tab includes a list of harvest profiles, and a series of options to override them. Generally, the default settings are fine.

Enter a schedule for the group

14 Click the **Schedule** tab.

*The **Schedule** tab includes a list of schedules and a button to create a new schedule.*

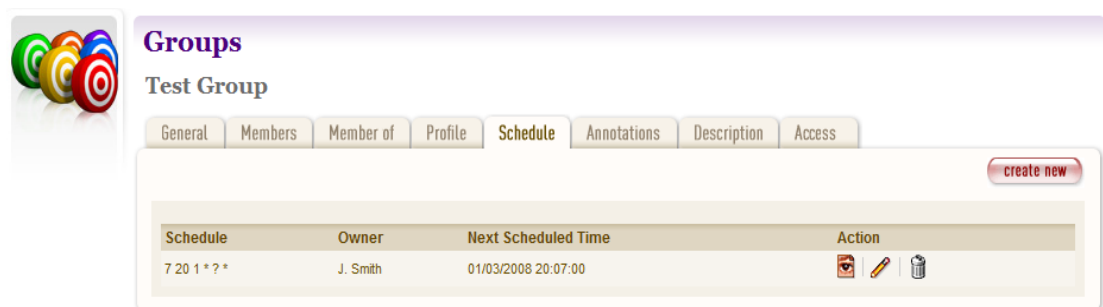
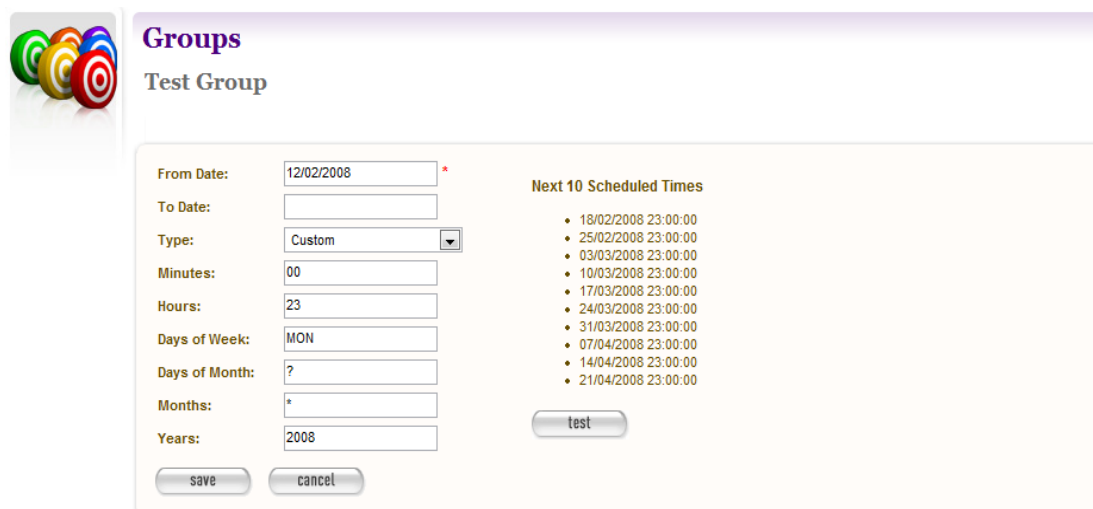


Figure 21. Schedule tab

15 Click **create new**.

The **Create/Edit Schedule** page displays fields for entering a schedule.



The screenshot shows a web interface for creating or editing a schedule. On the left, there's a sidebar with a 'Groups' header and a 'Test Group' sub-header. The main area contains a form with the following fields: 'From Date' (12/02/2008), 'To Date' (empty), 'Type' (Custom), 'Minutes' (00), 'Hours' (23), 'Days of Week' (MON), 'Days of Month' (?), 'Months' (*), and 'Years' (2008). To the right of the form, there's a section titled 'Next 10 Scheduled Times' which lists ten dates and times: 18/02/2008 23:00:00, 25/02/2008 23:00:00, 03/03/2008 23:00:00, 10/03/2008 23:00:00, 17/03/2008 23:00:00, 24/03/2008 23:00:00, 31/03/2008 23:00:00, 07/04/2008 23:00:00, 14/04/2008 23:00:00, and 21/04/2008 23:00:00. At the bottom of the form are 'save' and 'cancel' buttons, and a 'test' button is located below the scheduled times list.

Figure 22. Create/Edit Schedule

16 Enter **From** and **To** dates for when the harvest will run; select a **Type** of schedule, eg 'Every Monday at 9:00pm' or 'Custom' — if you select 'Custom', enter details of the schedule; and click **Save**.

Annotations

17 Click the **Annotations** tab.

The **Annotations** tab allows you to record internal and selection information about the Target. The Annotations are intended for internal use, but are included in submissions to archives.

Annotations can be modified or deleted after creation by the user who created them. When an annotation is modified, the annotation date is automatically updated to the time of modification.

Description

18 Click the **Description** tab.

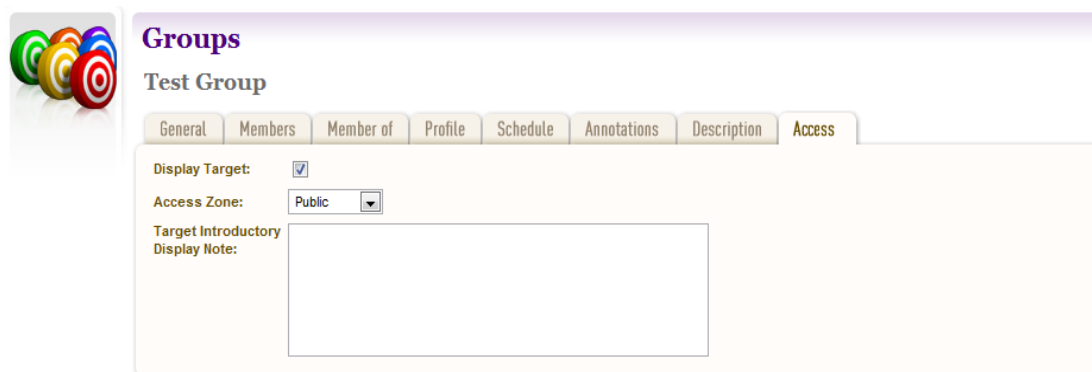
The **Description** tab includes a set of fields for storing Dublin Core metadata. This not used in the Web Curator Tool, but is included when any harvests are submitted to a digital archive.

Access

19 Click the **Access** tab.

The **Access** tab allows you to specify a Display Group flag, Display Notes and an Access Zone from

- Public(default)
- Onsite
- Restricted



The screenshot shows a web interface for managing groups. On the left is a logo with four colorful circles (green, yellow, blue, red) arranged in a square. The main header is 'Groups' in purple, followed by 'Test Group' in black. Below the header is a row of tabs: 'General', 'Members', 'Member of', 'Profile', 'Schedule', 'Annotations', 'Description', and 'Access'. The 'Access' tab is selected and highlighted. The 'Access' tab content area is light orange and contains the following fields: 'Display Target:' with a checked checkbox, 'Access Zone:' with a dropdown menu showing 'Public', and 'Target Introductory Display Note:' with a large empty text box.

Figure 23. Access Tab

Save the completed group

20 Click **save** at the bottom of the page to save the group.

How to edit or view a Group

Editing an existing group is very similar to the process for creating a new record.

To start editing, go to the Group search page, and click the

 — **Edit** details

icon from the Actions column. This will load the relevant Group editor. Note that some users will not have access to edit some (or any) Groups.

An alternative to editing a Group is to click the

 — **View** details

icon to open the Group viewer. Groups cannot be changed from within the viewer. Once in the Group viewer you may also switch to the editor using the 'Edit' button

Harvesting a group

Groups can also be used to synchronise the harvest of multiple related Targets by attaching a schedule to a Group.

Group harvests can be performed in two different ways:

- **Multiple SIP** — Each of the Targets in the Group have multiple Target Instances scheduled with the same harvest start date.
- **Single SIP** — The seed URLs from all the Targets in the Group are combined into a single Target Instance, and are harvested in one operation, quality reviewed in one operation, and submitted to the archive in one operation.

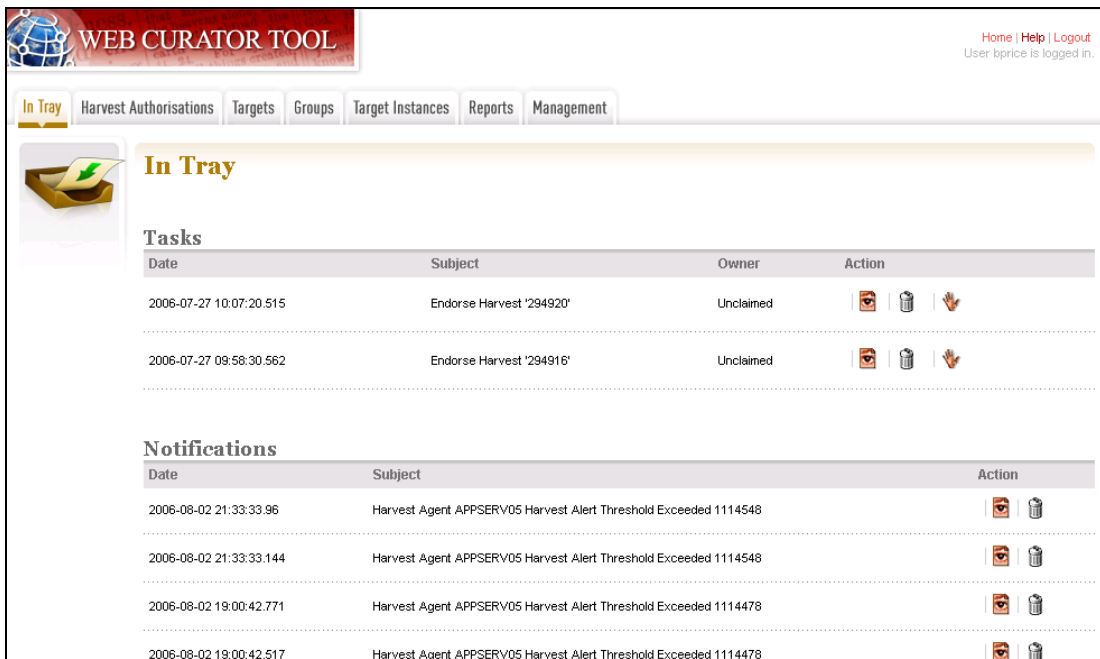
Single SIP harvests are performed using the profile settings and profile override settings for the Group (not the individual Targets).

The In Tray

Introduction

The **In Tray** is a place where the Web Curator Tool sends you notices and tracks any tasks that have been assigned to you.

The display below shows the *Tasks* and *Notifications* specific to your login. These can also (at your option) be emailed to you.









WEB CURATOR TOOL

Home | Help | Logout
User tprice is logged in.

In Tray

Tasks

Date	Subject	Owner	Action
2006-07-27 10:07:20.515	Endorse Harvest '294920'	Unclaimed	  
2006-07-27 09:58:30.562	Endorse Harvest '294916'	Unclaimed	  

Notifications









Date	Subject	Action
2006-08-02 21:33:33.96	Harvest Agent APPSERV05 Harvest Alert Threshold Exceeded 1114548	 
2006-08-02 21:33:33.144	Harvest Agent APPSERV05 Harvest Alert Threshold Exceeded 1114548	 
2006-08-02 19:00:42.771	Harvest Agent APPSERV05 Harvest Alert Threshold Exceeded 1114478	 
2006-08-02 19:00:42.517	Harvest Agent APPSERV05 Harvest Alert Threshold Exceeded 1114478	 

Figure 25. In Tray

Note that the **In Tray** — and each **Web Curator Tool** page — has tabs across the top to access the main system functions, which match the icons on the [Home Page](#).

Tasks


Tasks are events that require action from you (or from someone else with your privileges).


They support workflows where different people are involved at different steps in the harvesting process. For example, the person creating a Target may not be the same as the person who endorses a Target.

For each Task, you can:

 — **View** details of the task

 — **Delete** the task

 — **Claim** the task (for example, if you are among those who can endorse a harvest, you can claim the task so that you can then perform the endorsement).

 — **Un-claim** the task (for example, if you have accidentally claimed a task that is more appropriately carried out by someone else then you can release the task back to the pool of un-claimed tasks for someone else to claim).

Tasks are automatically created, and get automatically deleted once they have been finished (and will then disappear from the In Tray).

The different types of Task are outlined below.


Type	Reason	Recipient
Seek Approval	A user has requested someone seek approval for a permission record.	Users with the Confirm Permission privilege.
Endorse Target	A Target Instance needs to be endorsed	Users with the Endorse privilege.
Archive Target	A Target Instance needs to be archived	Users with the Archive privilege.
Approve Target	A Target has been nominated and needs to be approved.	Users with the Approve Target privilege.

Notifications

Notifications are messages generated by the system to tell you about the state of your data. Administrators may also receive notifications about the state of the harvesters.

For each Notification, you can:

 — **View** details of the notification

 — **Delete** the notification

The different types of notification are outlined below.

Type	Trigger	Recipient
Harvest Complete	Target Instance has been harvested.	Target Instance Owner

Type	Trigger	Recipient
Target Instance Queued	Target Instance has been queued because there is no capacity available.	Target Instance Owner
Target Instance Rescheduled	Target Instance has been delayed 24hrs because the permissions are not approved.	Target Instance Owner
Target Instance Failed	The Target Instance failed to complete	Target Instance Owner
Target Delegated	The ownership of a Target has been delegated.	The new Target Owner
Schedule Added	Someone other than the owner of the Target has added a schedule to it.	Target Owner
Permission Approved	A permission record has been approved.	Owners of Targets associated with the permission.
Permission Rejected	A permission record has been rejected.	Owners of Targets associated with the permission.
Group Changed	A new member has been added to a subgroup.	Owner of the Group
Disk Warning	The disk usage threshold/limit has been reached	Users with Manage Web Harvester privilege
Memory Warning	The memory threshold/limit has been reached.	Users with Manage Web Harvester privilege
Processor Warning	The processor threshold/limit has been reached.	Users with Manage Web Harvester privilege
Bandwidth Warning	The bandwidth limit has been exceeded reached.	Users with Manage Web Harvester privilege

Most notifications are sent only to people within the same Agency. The exception is the system usage warnings that are sent to all users with Manage Web Harvester privilege.

Receive Tasks and Notifications via Email

In your user settings page, the "Receive task notifications by email" setting controls whether notifications and tasks in your In Tray are also emailed to you.

This is useful if, for example, you want to receive an email notification when a harvest finishes.



User, Roles and Agencies

Introduction

The Web Curator Tool has a flexible system of users, permissions, roles and agencies. Each user belongs to an agency, and has a number of roles that define the access individual users have to Web Curator Tool functionality.

In this chapter we refer to administrative users, who are those users that can register other users, manage user accounts, assign roles to users, and adjust the system's configuration. However, in the Web Curator Tool, an administrative user is simply a user who has been assigned a role like "System Administrator" or "Agency Administrator", and the exact responsibilities of these roles (and even their names) will likely vary between institutions.

Users

Each user has a Web Curator Tool account, which includes some basic identifying information and some preferences.

Each user is also assigned one or more roles. Roles are sets of Web Curator Tool privileges that restrict the access individual users have to Web Curator Tool functionality.

Roles

A role is a way of capturing a set of privileges and responsibilities that can be assigned to sets of Web Curator Tool Users. Each role has a set of privileges attached. Users who are assigned the role will be given permission to perform operations.

Most privileges can be adjusted to three levels of scope: **All**, **Agency**, or **Owner**. If the scope of an active permission is set to **All** then the permission applies to all objects; if it is set to **Agency** then it applies only to those objects that belong to the same agency as the user; if it is set to **Owner** it applies only to those owned by that user.

Agencies

An agency is an organisation who is involved in harvesting websites using the tool. Users and roles are defined for an agency scope and Targets, Groups and Harvest Authorisations are also owned at Agency level. This provides a convenient way of managing access to the tool for multiple organisations.

Harvest authorisation privileges

The permissions that control access to the harvest authorisation module are listed in the Role editing page in the **Manage Copying Permissions and Access Rights** section.

They are:

- Create Harvest Authorisations
- Modify Harvest Authorisations
- Confirm Permissions
- Modify Permissions
- Transfer Linked Targets
- Enable/Disable Harvest Authorisations
- Generate Permission Requests

Target privileges

The permissions that control access to the Target module are listed in the Role editing page in the **Manage Targets** section.

They are:

- Create Target — The user can create new Targets.
- Modify Target — The user can modify existing Targets.
- Approve Target — The user can Approve a Target.
- Cancel Target — The user can Cancel a Target.
- Delete Target — The user can Delete a Target (but only if that Target has no associated Target Instances).
- Reinstate Target — The user can reinstate a Target that is in the Cancelled or Completed state.
- Add Schedule to Target — The user can attach a schedule to a Target.
- Set Harvest Profile Level 1 — The user can attach a profile to the Target from among the level 1 profiles.
- Set Harvest Profile Level 2 — The user can attach a profile to the Target from among the level 1 and level 2 profiles.
- Set Harvest Profile Level 3 — The user can attach a profile to the Target from among all the profiles.



Reports

Introduction

The Reports screen gives users access to several types of report.

System usage report

The System Usage Report is a report based on the audit records that lists the usage sessions for a user (or group of users) over a selected period.

The criteria for the report are:

- Start Date;

- End Date;

- Agency (optional).

The report will take data from the audit log table and logon duration tables in the database. Note that the logon times displayed are estimates and may not be completely accurate.

System activity report

The System Activity Report is a report based on the audit records. The criteria for the report are:

- Start Date;

- End Date;

- User (optional);

- Agency (optional).

This report will directly take information out of the audit log table in the database. The following information extracted from the audit log:

- User ID

- Username

- User Real Name (First name plus surname)

- Activity type

- Subject Identifier number

- Message text, which gives an English description of the action.

Crawler activity report

The crawler activity report allows administrators to get a summary of all the crawling activity undertaken by the Web Curator Tool for a specified period.

The report has the following parameters:

Start date: a date and time (to the nearest second)

End date: a date and time (to the nearest second)

The report finds all Target Instances where:

The State is other than “Scheduled” or “Queued” (i.e. they have been sent to a crawler), and

The period when the crawl was running overlaps the interval defined by the start date and end-date parameters.

The output includes the following fields: Identifier, Target Name, status, start date, end date (if known), crawl duration, bytes downloaded, harvest agent.

Target/Group Schedules report

The Target/Group Schedules report is a report showing the harvest schedules for ‘Approved’ Targets and/or Groups.

The report has the following filter parameters:

Agency (optional)

User (optional)

Target Type (optional)

The report details the schedules of all Targets and/or Groups where:

The State is “Approved” (for Targets) or “Active” (for Groups).

The output includes the following fields: Target/Group ID, Type (Target or Group), Name, Agency, Owner, From Date, To Date (if known) and Schedule Type followed by schedule type specific details.

Summary Target Schedules report

The Summary Target Schedules report is a summary report of the harvest schedules for ‘Approved’ Targets and/or Groups.

The report has the following filter parameters:

Agency (optional)

The report details the numbers of schedules of particular types for all Targets and/or Groups where:

The State is “Approved” (for Targets) or “Active” (for Groups).

The output includes the counts of all known schedule types for the selected agency or all agencies.



Harvester Configuration

Introduction

To be completed.

Harvester status

To be completed.

Bandwidth limits

To be completed.

Profiles

To be completed.



Permission Request Templates

To be completed.



Workflow

Minimal workflow

The basic workflow for harvesting a website with the Web Creator Tool is:

- 1 Obtain **Harvest Authorization** for the harvest and record it in a permission record.
- 2 Create a **Target** that defines the web material you want to harvest, technical harvest parameters and schedules for harvesting.
- 3 **Approve** the Target.
- 4 *The Web Curator Tool will create **Target Instances** according to your schedule, run the harvests for you, and notify you that the Target Instance is in the **Harvested** state and ready for review.*
- 5 **Quality Review** the Target Instance, then **endorse** the results.
- 6 Submit the harvest to a digital archive.

These steps do not always have to be performed in order, though there are some constraints on how the tasks can be performed, as outlined below.

Step	Prerequisites
1. Obtain Harvest Authorization	
2. Create a Target	
3. Approve the Target	Harvest authorisation created, Seed URLs linked to permission records.
4. Run harvests	Seed URLs linked to permission records that have been granted.
5. Quality review and endorse	Harvest has been run.
6. Submit to archive	Harvest result is endorsed.

General workflow example

The following diagram illustrates a possible flow of authorisations, Targets, and harvests in an institution that requires users to seek permission before initiating any harvests:

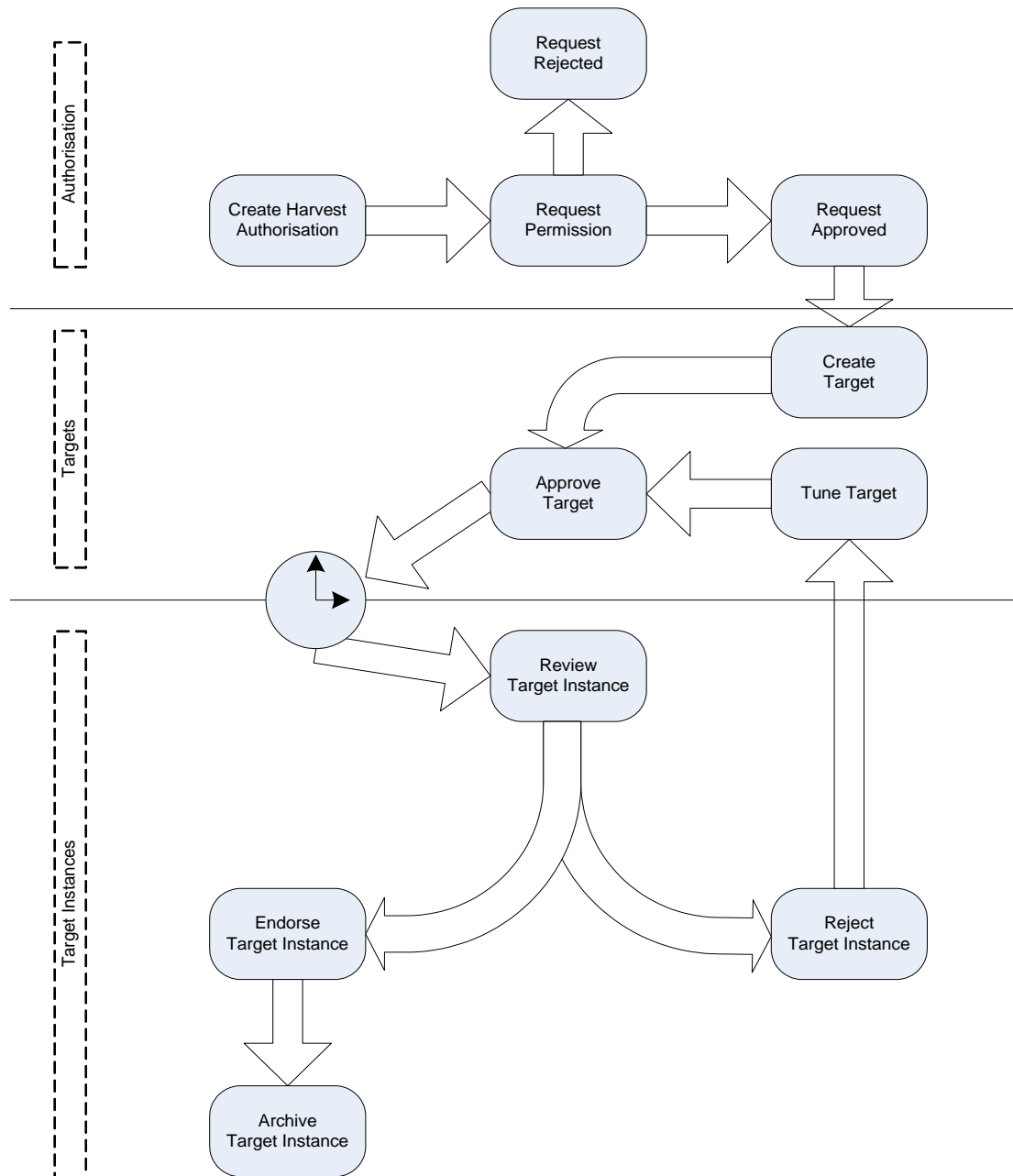


Figure 27. Web Curator Tool process flow

Detailed workflow example

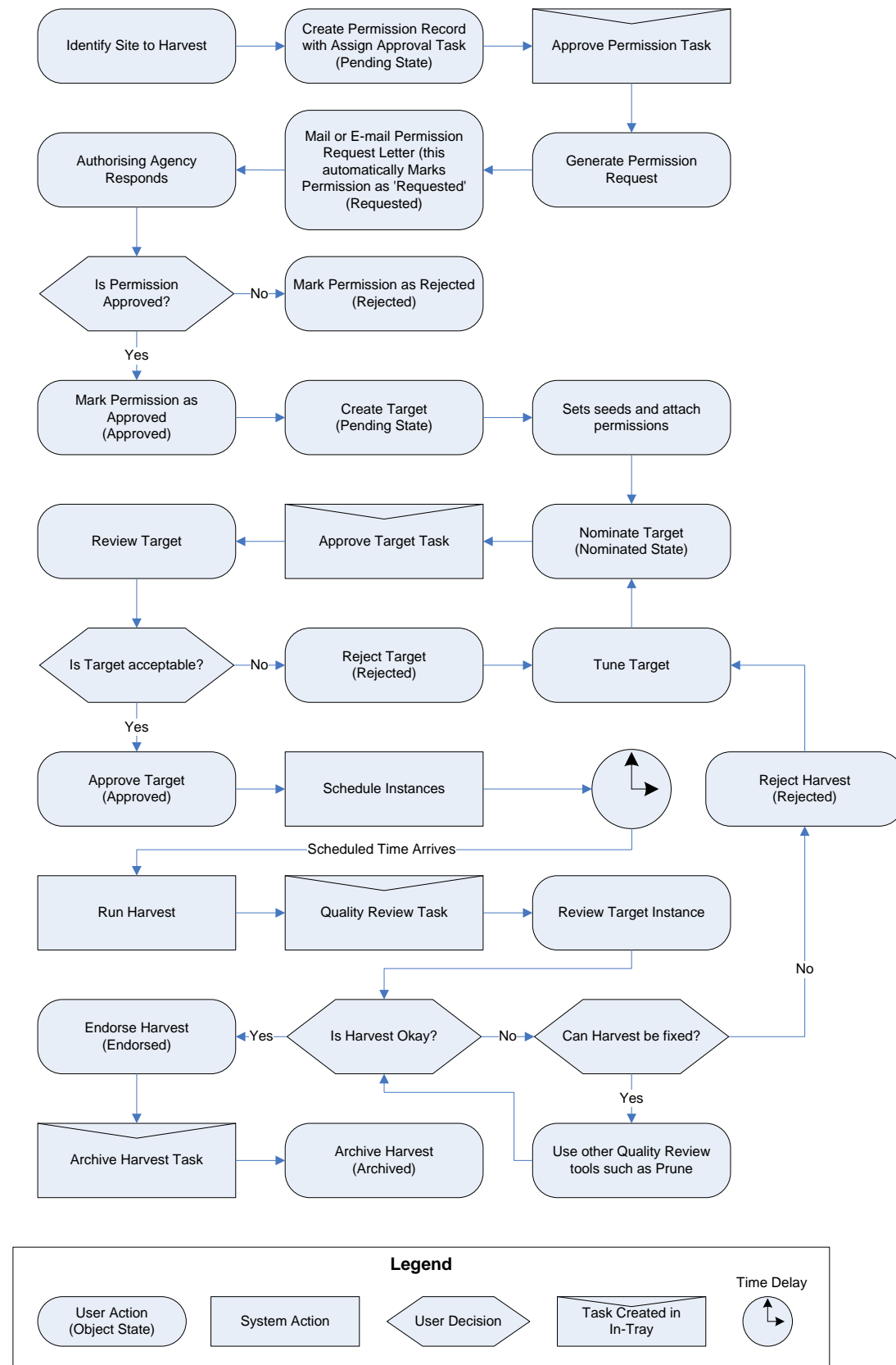


Figure 28: Detailed workflow