# **User Manual**

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# Introduction

The NetarchiveSuite is a software toolset built to be operated by librarians with a minimum of training in basic internet concepts, webcrawling methods and usage of this system. It's built to handle the national obligations of preserving the internet in Denmark and its design and architecture is much influenced by the Legal Deposit Law stating the three different harvest types:

- snap shot harvests of the national domain
- selective harvests of selected websites
- event harvests in connection with national events

It's also designed to be distributed across the world due to the fact that the danish installation is driven by the two national libraries: The State and University Library, Aarhus and the Royal Library in Copenhagen.

The basic concept in the NetarchiveSuite harvesting module is the notion of domains.

A domain has a two part name (e.g. netarchive.dk) or is an IP-number. For countries with other domain-name structures (e.g. UK), the system will need minor changes to apply to those naming conventions.

A domain can hold multiple so called configurations. A configuration describes how to harvest the domain or a part of the domain. So on configuration could harvest the whole domain (used by the snapshot functionality) and other configurations could take different minor parts of the same domain (for the selective / event harvest).

A configuration consists basically of two things

- A harvester template (predefined templates for the Heritrix web crawler)
- A number of seedlists to use with that template

A domain will always have a default configuration (selectable) and that configuration will be used when starting a snap shot harvest. The snap shot harvest therefore takes all domains known in the database.

edit

# **Selective Harvests**

Menu						Dansk English
Definitions	Selective Ha	rvests				
Selective Harvests						
Snapshot Harvests	Harvestdefinition	Next Run				
Schedules	my_first_harvest	May 3, 2007 1:15:39 PM	Active	Deactivate	Edit	History
Find Domain(s)	my_second_harvest		Inactive	Activate	Edit	History
Create Domain	Create new harvestde	efinition				
Domain Statistics						
Alias Summary						

The front page by default shows the list of selective harvests.

You can [*Activate*] an inactive harvest definition and [**Deactivate**] an active harvest definition. If you deactivate a running harvest, the system will finish the running jobs.

Click on [*Edit*] to change an existing harvest definition or [**Create a new harvest** definition]

Click on [*History*] if you wish to trace back all the jobs from former finished harvests.

### Creating/editing a selective harvest

Menu		Dansk English
10101	Selective Harvest	
Definitions	Selective fidivest	
Selective Harvests Snapshot Harvests	Harvest name: my_fifth_harvest	
Schedules Find Demoin(a)	Comments:	
Create Domain(s)		
Domain Statistics		
Alias Summary		
Edit Harvest Templates		
Harvest status		
Bitpreservation	Schedule: Once_an_hour	
Quality Assurance		
Systemstate	Domain Choose configuration	from list
	netarkivet.dk defaultconfig 🗾	Remove
	netarchive.dk defaultconfig 🝷	Remove
	Enter domain(s) to add to the harvest here:	
	Add domains Save	
	Event harvest:	

Create a new selective harvest definition by pressing [*Create new harvestdefinition*] from the frontpage.

Give the harvest definition a recognizable harvest name – you can not change it later. If necessary add a comment.

Choose a schedule from the dropdown list.

Now you can add domains to the harvest definition.

Write the name of the domains you want to add in the box "Enter domain(s) to add to the harvest here" and click on [*Add domains*].

The added domains will appear in the column "Domain".

For each added domain, choose the wanted configuration from the dropdown list for each domain. Press *[Save]* to save the harvest definition.

### **Event harvest**

Event harvests are treated almost the same as selective harvests in the system. The only difference is a power-adding of domains function. This could be used for selective harvests as well but was developed for event harvesting definitions where the operator must fill in larger number of URLs without having to edit configurations and seedlists on all those domains.

### Adding seeds to an event harvest

Menu	Event harvest:	my_first_harvest	Dansk English
Definitions Selective Harvests	Enter seeds:		
Snapshot Harvests			
Schedules			
Find Domain(s)			
Create Domain			
Domain Statistics			
Alias Summary			
Edit Harvest Templates			
Harvest status			
Bitpreservation			
Quality Assurance			
Systemstate			
	Harvest template:	path 2levels orderxml	<b>•</b>
	Insert	1	-

Use [*Add seeds*]. Enter identified start-URLs covering the event in the "Enter seeds:" box. Select a harvest template with the "Harvest template" drop down box.

All seeds will use the same template so to harvest different seeds with different templates you need to add them bunch by bunch for each template you need for your event harvest.

Pressing [*Insert*] starts the power-adding function. This function runs through the entered seeds one by one and does the following with each seed:

- 1. Finds the domain from which the seed derives
- 2. Creates a seedlist with the name of the harvest definition and the template as seedlist-name
- 3. Creates a configuration with the name of the harvest definition and the template as configuration-name. And select the seedlist from (2) to use with the new configuration. If the seedlist to create in (2) or the configuration to create in (3) already exist (If the power-adding function has been used before with other seeds from the same domain in the same event harvest) the system will only add the new URLs to the existing seedlist.

edit

# **Snapshot Harvests**

Menu					Da	nsk English
Definitions	Snapshot Harvests					
Selective Harvests						
Snapshot Harvests	Previous harvests:					
Schedules	my_first_snapshot	Inactive	Activate	10000000	Edit	History
Find Domain(s) Create Domain	Create new harvestdefinition					

On [*Snapshot Harvests*] new snapshot harvests are started, harvesting all domains known to the system in their default configurations. An overview of all snapshot harvests is also provided.

[*Create new harvest definition*] opens the template below.

### Creating/editing a snapshot harvest

Menu			Dansk Englis
	Snapshot Ha	arvest	
Selective Harveete	-		
Snapshot Harvests	Harvest name:	my_second_snapshot	
Schedules	Max number of bytes per	domain: 2000000	
Find Domain(s)		1	
Create Domain			
Domain Statistics	Comments:		
Alias Summary			
Edit Harvest Templates			
Harvest status			
Bitpreservation			
Quality Assurance			
Systemstate	Harvest only dom	ains that were not completely harvest in a	previous harvest:
	None		0

This page is used to define name and size (max. bytes per domain) of the harvest. It is recommended to systematize the naming for clarity, e.g. 2007-1, 2007-2 etc.

The size of the harvest can be defined in two ways: at the harvest definition [*Snapshot Harvests*] or at the configuration of the single domain. It will always be the lower size limit stopping the harvesting of a domain.

Comments can freely be added.

Snapshot harvests can be based on previous snapshots in the sense that it can be limited to only harvest domains that hit the max number of bytes limit in a previous harvest.

The domains completely finished (not hitting the max number of bytes limit – either on the configuration level or on the snapshot harvest level) in the first harvest will not be included in the second.

All other domains will be harvested from the beginning up till the newly specified limit for the new snapshot.

[Save] saves the harvest definition and returns to [Snapshot harvests].

After defining a snapshot harvest the harvest is activated with the [*Activate*] button on the snapshot frontpage. Harvest will not start until you press [*Activate*]. Status then changes to 'Active'.

[*Deactivate*] is not relevant in Snapshot Harvests because they only runs once. By [*Edit*] the Snapshot Definition can be changed but only before activation. Parameters changeable are size, commentary and if previous harvest startpoint should be used. The name can not be changed.

[History] provides an overview of the specific harvest: see User Manual/Harvest History

edit

# Domains

### **Creating Domains**

Menu		
Definitions	Create Domain	
Selective Harvests		
Snapshot Harvests	Enter the domain or list of domains to be created:	
Schedules		
Find Domain(s)		
Create Domain		
Domain Statistics		
Alias Summary		
Edit Harvest Templates		
Harvest status		
Bitpreservation	Create	
Quality Assurance		
Systemstate	Or import domains from a file on your harddrive	
	Browse Inges	st

The [*Create domain*] is used for creating new domains in the system. It is possible to create a single domain as well as list of domains. It is also possible to import domains from a file.

To create single domains enter domain names in the text box and press [Create].

To bulk create domains from a file select the file from your local computer with [*Browse*] and press [*Ingest*]. The file must be a simple list of domain names – one at each line. The file must be UTF-8 encoded if it contains special characters.

New domains get a default configuration created (with the defaultorderxml template and a maximum number of bytes at 500Mbytes). New domains also gets a defaultseedlist created. This seedlist contains a link to the frontpage of the domain. The frontpage is defined as www.domainname – e.g. '• www.netarchive.dk' for the domain 'netarchive.dk'

Already existing domains in the system will not be recreated.

### **Finding Domains**

Menu			Dansk English
Definitions	Find Domain(s)		
Selective Harvests			
Snapshot Harvests	Enter the name of the domain(s) to find:	Search	
Schedules	(Use of wildcards permitted, e.g., *.com)		
Find Domain(s)			

[*Find Domain(s)*] is used to find domains existing in the system.

Write a domain name in the box (e.g. kb.dk). Searching is done on the complete text string. Press [*Search*].

Left and/or right wildcards with \*.

If there are several hits a list is given of the found domains. If only one hit it leads directly to the Domain page.

If the search for a specific domain results in no hits you are prompted with the ability to create the domain in the system and by accepting [*Yes*] it leads directly to Domain page for the newly created domain.

### **Editing Domains**

Menu			Dansk English
Definitions	Edit domain		
Selective Harvests Snapshot Harvests Schedules Find Domain(s) Create Domain Domain Statistics Alias Summary	Domain name: netarchive.dk Comments:		
Edit Harvest Templates			
Harvest status	Alias of: Inetarkivet.dk valid until May 2, 2008 1:22:54 PM		
Bitpreservation	Configurations		Default
Quality Assurance	Conligurations	17.40x	G
	New configuration		
	Seed lists		
	defaultseeds (http://www.netarchive.dk)		Edit
	New seed list		
	Crawler traps		
	Show crawler traps		
	Update Domain		
	Show historical harvest information for netarchive.dk		

'*Edit domain*' is an overview of a single domain where it is possible to edit the domain's definition in the harvest system.

Free commentary text box.

'Alias of': Here it can be stated if the domain is an alias of another domain – they are 100% identical in content and only one of them should be harvested. Domains marked as an alias will not be harvested within the snapshot harvests. Alias is defined one year at a time and then has to be renewed.

'Configurations': [*New configuration*] and [*Edit*] open a new page: '*Enter/edit configuration*' (see below) 'Seed lists': [*New seed list*] and [*Edit*] opens a new page: '*Enter/edit seed list*'. (see below)

'Crawler traps': [*Show crawler traps*] Open a new text box: '*Crawler traps*' (see below)

[Show historical harvest information for ...] opens a new page "Harvest history for domain...." (see User Manual/Harvest History) ['

#### Editing configurations

Definitions	netarchive.dk			
Selective Harvests Snapshot Harvests	Enter / edit config	guration		
Schedules	Name:	defaultconfig		
Find Domain(s)	Harvest template:	default_orderxml	•	Seed list
Create Domain	Maximum number of	50000000		defaultseeds 🗠
Domain Statistics	bytes	120000000		
Alias Summary	Comments:			
Edit Harvest Templates				
Harvest status				
Bitpreservation				·
Quality Assurance				· · ·
Systemstate	<u>1</u>			

'Enter/edit configuration' is used to define a new configuration and edit an existing one. A configuration contains information about which Harvest template and Seed lists are used (more than one Seed list can be used - hold down CTRL).

At the creation of a new configuration a name is given that thereafter can not be changed.

Furthermore it is possible to choose between different Harvester templates and maximum number of bytes to be harvested in each harvest of the configuration. The default number of bytes is 500Mbytes

#### **Editing seed lists**

Menu	Dansk English
Definitions	netarchive.dk
Selective Harvests	Protect of the second lifest
Schedules	Enter / edit seed list Name: defaultseeds
Find Domain(s) Create Domain	http://www.netarchive.dk
Domain Statistics Alias Summary	Seeds:
Edit Harvest Templates Harvest status	
Bitpreservation Quality Assurance	Comments:
Systemstate	
	Update seed list

'Enter/edit seed list' is used to define a new Seed list or to edit an existing one.

At the creation of a new Seed list a name is given that thereafter can not be changed.

In the 'Seeds' text box a list of seeds to be harvested is given. Seeds can be omitted by writing a # prefix, e.g. # • http://www.kb.dk. This can also be used for comments inside the seedlist – e.g. '#this seed is important'

#### **Editing crawlertraps**

A crawlertrap is a path followed blindly by the harvester which in principle can continue forever. This typically could be a calendar.

To omit crawlertraps on a domain the administrator can state parts of URLs that should not ever be harvested (in any configuration) Matching URLs are omitted in all harvests of the domain and in other domains harvested in the same job. So be careful not to give too general statements that could potentially omit things on other domains (perhaps always include the domainname itself in the statement)

The string of text must be stated as a regular expression.

### **Domain statistics**

Menu		
efinitions	Domain Sta	tistics
Selective Harvests Snapshot Harvests	Number of regist	tered domains: 20
Schedules		
Schedules Find Domain(s)	Top level domain	Number of subdomains
Schedules Find Domain(s) Create Domain	Top level domain	Number of subdomains
Schedules Find Domain(s) Create Domain Domain Statistics	Top level domain	Number of subdomains
Schedules Find Domain(s) Create Domain Domain Statistics Alias Summary	<b>Top level domain</b> com dk	Number of subdomains 1 1 18

The domain statistics page will give you information about number of subdomains for each unique Top level domain known in the system. IP-numbers will be counted seperately.

The number in the "Number of subdomains" column is clickable and will do a search for all domains matching that Top level domain. This is only applicable to Top level domains with a limited number of subdomains since the matching domains will be listed on one page – and that page will get very long if the system contains hundreds of thousands of domains.

### Alias summary

efinitions	Overview of A	Aliases	
Selective Harvests Snapshot Harvests	Existing aliases:		
Find Domain(s)	Domain	Alias of:	Expires
Create Domain	detkongeligebibliotek.d	k kb.dk	May 2, 2008 1:22:24 PM
Domain Statistics	kongeligebibliotek.dk	kb.dk	May 2, 2008 1:22:46 PM
Aller a Property and	and a solution office	and a second strength of the	Main D. 0000 1-00-54 DM

The alias summary page gives an overview of the domains marked as aliases of other

domains in the system. Both domain names are clickable and will open the domain page for the clicked domain.

The "Expires" column shows when the alias expires (12 month after they are marked). The mark does not disapear after 12 month in the database but the "Overview of Aliases" page will show the "expired" ones in the top.

To renew an alias for another 12 month one is currently forced to open the domain page of the marked domain (the "Domain" column) – select "renew alias" and press "Save"

edit

## Schedules

Menu		Dansk English
Definitions	Schedules	
Selective Harvests		
Snapshot Harvests	Existing Schedules:	
Schedules	Once_a_day	Edit
Find Domain(s)	Once_a_month	Edit
Create Domain	Once_a_week	Edit
Domain Statistics	Once_an_hour	Edit
Alias Summary	Create new schedule	

Schedules are only applied on selective and event harvests.

A schedule defines a harvesting frequency. The minimum entity is one hour. It is possible to choose an automatically fixed start and/or end time for a specific harvest.

It is possible to create an infinite number of schedules.

For a new schedule click on [Create new schedule]. And to edit an existing schedule press

Menu	Dansk English
	Edit Schedule
Definitions Selective Harvests Snapshot Harvests Schedules Find Domain(s) Create Domain Domain Statistics Alias Summary Edit Harvest Templates Harvest status Bitpreservation Quality Assurance Systemstate	Schedule name: Once_a_day Comments: En gang on dagen, med det samme Perform harvest Every 1 days Time of day:  Anytime C At 0 0
	Starts at the earliest
	As soon as possible
	(format: DD/MM YYYY hh:mm)
	Continue
	Forever
	C Until (format: DD/MM YYYY hh:mm)
	C Until harvests have been done
/Edit/.	Save

Give the schedule an easily recognizable name - note that it can't be changed once saved.

If necessary, add a comment.

Fill in the frequency and – if necessary - time of the day for the harvest to run.In the drop down menu you have the choice between hours, days, weeks and months. Changing "*days*" *switches the* "**Time of day**" *so that:* 

- "hours" lets you choose a specific minute of the hour
- "days" lets you choose a specific time of day
- "weeks" lets you choose a specific day of the week
- "months" lets you choose a specific day of the month

After selecting the frequency you must select "*Start at the earliest*" which could either be as soon as possible (default) or at a specific date and time.

The last thing to determine is how long this schedule should go on. The default for the duration of a schedule is forever. It is also possible to choose an end date and a certain number of harvests to perform. This allows you to define schedules that will only run in a shorter period - e.g. in connection with an event harvest where the date range in which to harvest is predefined.

edit

## **Harvest History**

### All jobs

[*Harvest Status*] in the left menu by default shows a chronological list of all jobs ever harvested. The same does [All jobs]

Job ID	Harvest name	Run number	Status	Harvest errors	Upload errors	Number of configurations
1	my_first_harvest	0	Failed	•	1 files failed to upload	1
2	my_first_harvest	1	Failed		1 files failed to upload	1
32	KB-test2	0	Done	-	-	1
83	odr_dla_1	1	Done	*	-	2
84	odr_dla_1	2	Done		-	2
85	odr_dla_1	3	Done		-	2
96	odr_dla_1	4	Done	-		2
37	odr_dla_1	5	Done		-	2
88	odr dla 1	6	Done	2	-	2

For each job the page shows information about the job and its status as well as information about errors (harvest errors or upload errors) and number of configurations in the job.

Chose [*Run number*] if you want to check details on a specific run of that harvest definition – not that a run could contain of multiple jobs.

Chose [Harvest name] if you want to check details on the history of a specific harvest

definition.

Chose [JobID] if you want to check details on a specific job.

In case of Harvest errors a [*Resubmit*] button will appear and the operator can choose to resubmit that specific job to be harvested again.

### History of a harvestdefinition

Definitions	Harves	st histo	ry for f	ull harve	st my_first	_harvest		Dansk English
Harvest status All Jobs All Jobs per domain Bitpreservation Quality Assurance	The harve Run	stdefinition	my_first_ha	rvest is inacti Bytes	ve. If activated, it Documents	will run again or Total	n May 10, 2007 1 Number of	1:15:39 PM Number of
Systemstate	number	Start time	End une	Harvested	Harvested	jobs	failed jobs	resubmitted jobs
	o	May 3, 2007 1:17:47 PM	May 3, 2007 1:19:40 PM	9,580,759	119	1 Show jobs	1	0
	1	May 4, 2007 1:16:46 PM	May 4, 2007 1:18:41 PM	9,581,230	120	1 Show jobs	1	0
	2	May 5, 2007 1:16:46 PM	May 5, 2007 1:18:39 PM	9,581,230	120	1 Show jobs	1	0
	1	May 6, 2007	May 6, 2007		12220	Sec. 17.		2

The history page for a harvest definition is the same as you can reach from the frontpage with the [*History*] buttons.

This history page gives you further information for each run of the harvest definition: Start time, End time, number of bytes harvested and number of documents harvested.

The page also show how many jobs each run consists of and how many of these that failed and eventually got resubmitted.

### History of a domain

		-					Da	nsk English
Harvest h	istory	to	r netarchi	ve.d	k			
Harvest	Run number	Job ID	Configuration	Start time	End time	Bytes Harvested	Documents Harvested	Stopped due to
my_first_harvest	0	1	defaultconfig	May 3, 2007 1:17:47 PM	May 3, 2007 1:19:40 PM	9,580,759	119	Domain Completed
my_first_harvest	1	2	defaultconfig	May 4, 2007 1:16:46 PM	May 4, 2007 1:18:41 PM	9,581,230	120	Domain Completed
my_first_harvest	2	3	defaultconfig	May 5, 2007 1:16:46 PM	May 5, 2007 1:18:39 PM	9,581,230	120	Domain Completed
	Harvest h Harvest name my_first_harvest my_first_harvest	Harvest history harvest Run name number my_first_harvest 1 my_first_harvest 2	Harvest history fo         Harvest       Run       Job         name       number       D         my_first_harvest       0       1         my_first_harvest       1       2         my_first_harvest       2       3	Harvest history for netarchi         Harvest       Run       Job       Configuration         name       number       D       Configuration         my_first_harvest       0       1       defaultconfig         my_first_harvest       1       2       defaultconfig         my_first_harvest       3       defaultconfig	Harvest history for netarchive.d         Harvest       Run       Job       Configuration       Start         name       number       ID       Configuration       Start         my_first_harvest       0       1       defaultconfig       May 3, 2007         my_first_harvest       1       2       defaultconfig       May 4, 2007         my_first_harvest       1       2       defaultconfig       May 4, 2007         my_first_harvest       2       3       defaultconfig       May 5, 2007         my_first_harvest       2       3       defaultconfig       May 5, 2007	Harvest history for netarchive.dk         Harvest name       Run number       Job no       Configuration       Start time       End time         my_first_harvest 0       1       defaultconfig       2007 2007 117.472 119.40 PM       PM       PM         my_first_harvest 1       2       defaultconfig       May 3. May 3. May 3. 2007 2007 117.472 119.40 PM       PM       PM         my_first_harvest 1       2       defaultconfig       May 5. May 5. 2007 2007 116.666 118.91         my_first_harvest 2       3       defaultconfig       May 5. 2007 2007 116.666 118.92         my_first_harvest 2       3       defaultconfig       May 5. 2007 2007 2007 2007 2007 2007 2007 200	Harvest history for netarchive.dk         Harvest name       Run number ID       Configuration       Start time       End time       Bytes Harvested         my_first_harvest 0       1       defaultconfig       2007 2007 1017/47 113940       9,580,759       9,580,759         my_first_harvest 1       2       defaultconfig       May 3, May 3, May 4, 2007 2007 11646 11841       9,581,230         my_first_harvest 2       3       defaultconfig       May 5, May 5, 2007 2007 11646 11841       9,581,230         my_first_harvest 2       3       defaultconfig       May 5, May 5, 2007 2007 11646 11841       9,581,230         my_first_harvest 2       3       defaultconfig       May 5, May 5, 2007 2007 11646 11841       9,581,230	Date: The story for netarchive.dk         Harvest history for netarchive.dk         harvest name       Run Do       Configuration       Star time       End time       Bytes       Documents         nmy_first_harvest 0       1       defaultconfig       2007       2007       9,580,759       119         my_first_harvest 1       2       defaultconfig       May 4, May 4, May 4, PM       9,581,230       120         my_first_harvest 2       3       defaultconfig       May 5, May 5, PM       9,581,230       120         my_first_harvest 2       3       defaultconfig       May 5, May 5, PM       9,581,230       120

If you want to see all the jobs connected to a specific domain, click on [*All jobs per domain*] and search for the domain name

You will get a chronological list of the harvest definitions including the chosen domain.

This pages gives the same history information as the other two history pages and further more gives a "*Stopped due to*" information. This column will show the operator if a harvest was stopped unexpectedly of if the harvest hit the max-bytes limit for the chosen

domain or if the harvest was stopped because of en error on the harvester machine

### Details on a job

Job ID	Туре	Harvest name	Run number	Start time	End time	Status	Harvest errors	Upload errors	Objec limit	Byte limi
13 Pa ha	Partial narvest	my_2nd_harvest	0	May 23, 2007 2:43:03 PM	May 23, 2007 2:47:57 PM	Done			-1	500,000,000
QA jo	ob sel	ection								
Select this	is job for (	QA with viewerprox	y							
Select this The link abo	is job for ( bove will se	QA with viewerprox	y werproxy brows	e index. This will only wor	k if vour browser is set u	o to use the	viewerproxy as	web proxy.		
Select this The link abo	is j <mark>ob for (</mark> bove will se	QA with viewerprox	¥ werproxy brows	e index. This will only wor	k if your browser is set u	o to use the	viewerproxy as	web proxy.		
Select this The link abo	is job for ( bove will se	QA with viewerproxy lect this job for the view	v verproxy brows d confi	e index. This will only wor	k if your browser is set u	o to use the	viewerproxy as	web proxy.		
Select this The link abo	is job for ( bove will se <b>ded d</b>	QA with viewerproxy lect this job for the view	v werproxy brows d confi	e index. This will only wor gurations	k if your browser is set u	o to use the	viewerproxy as	web proxy.		
Select this The link abo Incluc Domain	is job for ( bove will se <b>ded d</b> n	QA with viewerproxy lect this job for the view lomains an Configuratic	y werproxy brows d confi on	e index. This will only wor gurations Bytes Harvested	k if your browser is set u Docur	o to use the nents Ha	viewerproxy as arvested	web proxy.	Stopped du	e to
Select this The link abo Incluc Domain netarchive	is job for ( bove will se <b>ded d</b> n re.dk	QA with viewerprox lect this job for the view lomains an Configuratic defaultconfig	y werproxy brows d confi on	e index. This will only wor gurations Bytes Harvested 9,580,759	k if your browser is set u Docum 119	o to use the nents Ha	viewerproxy as arvested	web proxy.	Stopped du	le to
Select this The link abo Incluc Domain netarchive netarkivet.	is job for ( bove will se <b>ded d</b> n ve.dk	QA with viewerprox lect this job for the view lomains an Configuratic defaultconfig defaultconfig	v erproxy brows d confi	e index. This will only wor gurations Bytes Harvested 9,590,759 9,572,499	k If your browser is set up Docum 119 118	o to use the nents Ha	viewerproxy as arvested	web proxy.	Stopped du Domain Comple Domain Comple	le to led ted
Select this The link abo Incluc Domain netarchive netarkivet	is job for ( bove will se ded d n /e.dk	QA with viewerprox; Heat this job for the view lomains an Configuratic defaultconfig defaultconfig	y d confi on	e index. This will only wor gurations Bytes Harvested 9,580,759 9,572,499	k If your browser is set up Docum 119 118	o to use the nents Ha	viewerproxy as	web proxy.	Stopped du Domain Comple Domain Comple	<b>e to</b> ted ted
Select this The link abo Incluc Domain netarchive netarkivet	is job for ( bove will se <b>ded d</b> n re.dk st.dk <b>list</b>	QA with viewerprox; Heat this job for the view Iomains an Configuratic defaultconfig defaultconfig	werproxy brows d confi	e index. This will only wor gurations Bytes Harvested 9,580,759 9,572,499	k If your browser is set u Docum 119 118	o to use the	viewerproxy as	web proxy.	Stopped du Domain Comple Domain Comple	<b>le to</b> ted ted
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Clicking on a jobID on any of the harvest history pages will give you a very detailed report on the job.

This pages gives all information available about the job itself (e.g. max-bytes limit) and about the single domains included in the job.

Further more the page gives the complete seedlist used with the job and the complete "*Harvest order template*" as well as detailed error information in case of errors. The two latter is mainly for advanced users debugging specific crawls where things didn't go as expected.

edit

# **Harvester Templates**

Menu					Dansk English
Definitions	Edit Harvest	Templates			
Selective Harvests Snapshot Harvests	Download				
Schedules Find Domain(s) Create Domain	Select one of the following t 3levels_orderxml	emplates:	trieve		
Domain Statistics Alias Summary Edit Harvest Templates	Upload				
Harvest status	Here you can upload a han	esttemplate to replace an existing harve	sttemplate:		
Bitpreservation	3levels_orderxml	•	Browse		
Quality Assurance	Replace harvesttemplat	e with file from your own harddrive			
Systemstate	Here you can create a new	harvesttemplate by uploading it from yo	ur harddrive:		
	Template Name	Select file:		Browse	
	Create a new harvestte	mplate using a file from your own har	ddrive		

The [*Edit Harvest Templates*] is used for managing the harvester templates. It gives functionality to both download and upload templates from/to the system database.

### Download

The download part lets you view existing templates as either plain text or XML in the browser window or download existing templates to your local computer

Select the template you want to view/download in the first select box, select the method in the second and press [*Retrieve*]

### Upload

In the Upload section you can either update an existing template or create a new one.

To update an existing template, select the template to update in the first select box and browse for a file on your local computer with the [*Browse*] button.

By pressing [*Replace harvesttemplate with file from your own harddrive*] you will overwrite the chosen template in the database.

To create a new template give the new template a name in the "Template Name" box and select a file from your local computer with [*Browse*].

By pressing [*Create a new harvesttemplate using a file from your own harddrive*] you will add the new template with the given name to the database.

When using the upload functions the uploaded files will be checked against certain rules to ensure that the templates contain specific sections used by the NetarchiveSuite system

edit

# **Quality Assurance**



Quality assurance is done by browsing the archive for selected domains. If something is missing on the pages the system can be set to automatically collect all the missing URL's for later transfer to the harvesting system. Before doing Quality Control you need to setup your browser to use a proxyserver (see QuickStart\_Manual)

It is suitable to investigate one domain at a time (unless several domains are included in the same website-complex).

[*Start collecting URL's*] Hereby starts the collection of URL's. The *Current Viewerproxy* status textbox shows if the system collects URL's or not – and how many URL's are currently collected.

[Stop collecting URL's] Collection of URL's can be stopped at any time.

[*Clear collected URL's*] The list of URL's can be cleared at any time e.g. when investigating a new domain starts. *NB*! This function can not be undone.

[*Show collected URL's*] The list of URL's can be viewed at any time. The list can be copied and manually be added to relevant Seed lists for the relevant domains in the harvesting system.

edit

## System State

The [*Systemstate*] pages lets the operator monitor the entire system (all machines and applications) from one central point.

Organisation	Machine	Port	Application	Index (show all)	Logmessage
KB	kb-test-acs-001	8082	ViewerProxy	0	May 23, 2007 10:23:16 AM dk.netarkivet.viewerproxy.WebProxy <init> INFO: Starting viewerproxy jetty on port 8082</init>
KB	kb-test-acs-001	8083	ViewerProxy	0	May 23, 2007 10:23:17 AM dk.netarkivet.viewerproxy.WebProxy <init> INFO: Starting viewerproxy jetty on port 8083</init>
KB	kb-test-acs-001	8084	ViewerProxy	0	May 23, 2007 10:23:17 AM dk.netarkivet.viewerproxy.WebProxy <init> INFO: Starting viewerproxy jetty on port 8084</init>
KB	kb-test-acs-001	8085	ViewerProxy	0	May 23, 2007 10:23:17 AM dk.netarkivet.viewerproxy.WebProxy <init> INPO: Starting viewerproxy jetty on port 8085</init>
KB	kb-test-acs-001	8086	ViewerProxy	0	May 23, 2007 10:23:17 AM dk.netarkivet.viewerproxy.WebProxy <init> INPO: Starting viewerproxy jetty on port 8086</init>
KB	kb-test-acs-001	8087	ViewerProxy	0	May 23, 2007 2:59:00 PM dk.netarkivet.archive.indexserver.FileBamedCache getIndex INFO: Generated index 'cache/FULL_CRAWL_LOG/13-cache' of id '[13]', request was for '[13]'
KB	kb-test-acs-001	9999	IndexServer	0	May 23, 2007 2:59:00 PM dk.netarkivet.archive.indexserver.distribute.IndexRequestServer doGenerateIndex INFO: Succesfully generated index of type 'FULL_CRAWL_LOG' for the jobs [13]
KB	kb-test-adm-00	8080	ArcRepository	0	May 23, 2007 2:47:57 PM dk.netarkivet.archive.arcrepository.ArcRepository replyOK INFO: Store OK: '13-metadata-1.arc'.
KB	kb-test-adm-00	8080	HarvestDefinitionGUI	0	Nay 23, 2007 2:59:16 PM dk.netarkivet.common.webinterface.HTMLUtile getTitle WARNING: Could not find page title for page 'http://kb-test-adm-001.kb.dk:8080/HarvestDefinition/Definitioner-sele
KB	kb-test-adm-00	8081	BitarchiveMonitorServe	r O	May 23, 2007 2:47:57 PM dk.netarkivet.archive.bitarchive.distribute.BitarchiveMonitorServer doBatchReply INPO: BatchReplyMessage: ' BatchReplyMessage for batch job ID:60-130.226.228.6(fe:20:c5:a4:9b:4)-53768-1179924466853

The initial view is the last log-message from every machine and every application.

This can be narrowed down to single "Organisations" / "Machines" / "Ports" / "Applications" and extended to not only show the last log-message but the last 100 log-messages (don't do that for the initial view of everything)

To narrow the view press either of the links on the page – when narrowed the view can be extended again with the [*Show all*] buttons that will dynamically appear in the headlines of the table.

The following is a view of one harvester instance on one specific machine (narrowed down by machine + port + application)

Overviev	/ of the s	yste	m state									
Organisation	Machine (show all)	Port (show all)	Application (show all)	Index	c							
SB	sb-test-har-00	1 8083	HarvestControllerServer	0	May 23, 2007 2:43:45 PM dk INFO: timestamp 2007-05-23T12:43:45Z	netarkivet.ha discovered 234	arvester.har queued 27	vesting.Herit downloaded 207	rixLauncher doCr doc/s(avg) 4.7(5.18) 665	rawlLoop KB/s(avg) 5(372)	dl-failures 0	buay-th 0
SB	sb-test-har-00	1 8083	HarvestControllerServer	1	May 23, 2007 2:43:25 PM dk INFO: timestamp 2007-05-23T12:43:25Z	.netarkivet.ha discovered 0	arvester.har queued 0	vesting.Herit downloaded 0	rixLauncher doCf doc/s(avg) 0(0)	rawlLoop KB/s(avg) 0(0)	dl-failures 0	busy·th 0
SB	sb-test-har-00	1 8083	HarvestControllerServer	2	May 23, 2007 2:43:05 PM dk INFO: timestamp 2007-05-23T12:43:05Z	.netarkivet.ha discovered 0	arvester.har queued 0	vesting.Herit downloaded 0	rixLauncher doCn doc/s(avg) 0(0)	rawlLoop KB/s(avg) 0(0)	dl-failures 0	busy-th 0
SB	sb-test-har-00	1 8083	HarvestControllerServer	3	May 23, 2007 2:43:04 PM ord WARNING: Unknown attribute	g.archive.craw 'scope-embedd	vler.setting ied·links' i	s.CrawlSettin n 'file:/home	gsSAXHandler\$Sim /netarkiv/PLIGT/	mpleElementHa /harvester_80	andler endElemen 083/13_11799241	nt 83557/ord
SB	sb-test-har-00	1 8083	HarvestControllerServer	4	May 23, 2007 2:43:04 PM or WARNING: Unknown attribute	g.archive.craw 'shal-content	vler.setting t' in 'file:	s.CrawlSettin /home/netarki	gsSAXHandler\$Sis v/PLIGT/harvest	npleElementHa ar_8083/13_11	andler endElemen 179924183557/ord	nt der.xml',
SB	sb-test-har-00	1 8083	HarvestControllerServer	5	May 23, 2007 2:43:03 PM dk INFO: Starting crawl of jok	.netarkivet.ha o : 13	arvester.har	vesting.distr	ibute.HarvestCor	ntrollerServe	er\$HarvesterThr	ead run
SB	sb-test-har-00	1 8083	HarvestControllerServer	6	May 23, 2007 2:43:03 PM dk INFO: Generated index 'cach	.netarkivet.ar he/DEDUP_CRAWI	cchive.index L_LOG/-cache	server.FileBa ' of id '[]',	sedCache getInde request was for	ex : '[]'		
					W 53 5007 5.45.65 BW JL			P/1-P-				

If you load this page just while a harvester instance is restarting you might get a JMX-error. The same thing will happen if one of the configured applications does not run

or does not respond. So the system state will in some sense also discover non functional applications.

edit

# **Bit Preservation**

Menu	Dansk English
Definitions	Filestatus
Harvest status Bitpreservation	Status of the bitarchives
Filestatus Quality Assurance Systemstate	Filestatus for: <b>SB</b> Number of files: 3299 Missing files: 0 Last update at Fri Feb 23 09:31:57 CET 2007
	Update Filestatus for: <b>KB</b> Number of files: 3444 Missing files: 0 Last update at Fir Feb 23 09:32:10 CET 2007
	Update Checksum status for: <b>SB</b> Number of files with error: 0 Last update at Feb 23, 2007 9:59:38 AM
	Update Checksum status for: KB Number of files with error: 0 Last update at Feb 23, 2007 11:20:47 AM Update

The [*Bitpreservation*] interface lets you control active checks of the status of the underlying bitarchive. This only applies if your installation uses the NetarchiveSuite bitarchive application.

The interfaces lets you initiate two types of checks on every copy of the files in the archive: Filestatus and Checksum status.

In the example on the screen dump there are two bitarchive instances – SB and KB.

The [*Update*] buttons let you update the status for both files and checksums for both bitarchive instances. The page will give you the Filestatus as

- Number of files
- Missing files
- Last updated at

and the Checksum status as

- Number of files with error
- Last updated at

The Filestatus checks are rather fast because only the existence of the files are checked whereas the Checksum status checks can take days/weeks for lager archives depending on the number of CPUs and the IO-speed of your hard drives.

### **Missing Files**

n new new new new new new new new new ne	
Manglende filer for KB:	
23-metadata-1.arc	Get info
23-11-20070525024333-00000-sb-test-har-001.statsbiblioteket.dk.arc	Get info
22-11-20070524235932-00000-sb-test-har-001.statsbiblioteket.dk.arc	Get info
18-11-20070524134331-00000-sb-test-har-001.statsbiblioteket.dk.arc	Get info
22-metadata-1.arc	Get info
18-metadata-1.arc	Get info
18-11-20070524135058-00001-sb-test-har-001.statsbiblioteket.dk.arc Execute	Get info
18-11-200705241 35058-00001-sb-test-har-001.statsbiblioteket.dk.arc Execute C.Cbange the infolooy for T. files	Get ii

If files are missing on one instance of the bitarchive a [*Show missing files*] button will appear right next to the line with the number of missing files

For each missing file you can select "Get info". With the "Change the infobox for"-field in the bottom of the screen you can select a number of files in one operation.

Pressing [*Execute*] makes the system get a fresh status on the files and there checksums from both copies (out of which one is missing) and from the administrative system so that there are always three checksums available for each file.

Menu		
nitions	Missing Files	
est status eservation	Manglende filer for KB:	
ity Assurance	23-metadata-1.arc	🗍 Get info
vetametata	Status:	
SINSTATE	State Checksum	
	Admin Data - 273356f23254684051dc99ab7c0e8937	
	SB UPLOAD_COMPLETED 273356f23254684051dc99ab7c0e8937	
	KB UPLOAD_STARTED Ingen checksum	Mark as failed upload
	Add to archive	
	23-11-20070525024333-00000-sb-test-har-001.statsbiblioteket.dk.arc	🗍 Get info
	22-11-20070524235932-00000-sb-test-har-001.statsbiblioteket.dk.arc	🗍 Get info
	18-11-20070524134331-00000-sb-test-har-001.statsbiblioteket.dk.arc	C Get info
	22-metadata-1.arc	☐ Get info
	18-metadata-1.arc	☐ Get info
	18-11-20070524135058-00001-sb-test-har-001.statsbiblioteket.dk.arc	🗍 Get info
	Execute	
	Change the infobox for 7 files	
	☐ Change 1 failed	
	Change 1 that can be added	

If the two "remaining" checksums (On the screen dump

"273356f23254684051dc99ab7c0e8937") are identical the system allows you to add the missing file to the bitarchive instance that had lost it.

This requires you to click "*Mark as failed upload*" and "Add to archive" and then press [*Execute*]. Both marking files as failed uploads and marking them for addition can be done for a number of files in one operation. '

### **Checksum Errors**



In case of a checksum error this error can be corrected through the interface. It requires two steps. First a deletion of the bad file and afterwards a re-upload of a good file with the above missing-files functionality.

To remove a bad file you need to type a security password and press [*Remove the file from bitarchive Location SB*]. The bad file will not be completely removed but moved to an 'attic' directory on the bitarchive server holding the bad file.

edit

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