



OAI (Open Archives Initiative) Suite

Version 4.0

Introductory Guide

for

New Users

Any comments or requests for change to this user guide should be referred to:-

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Contents

Introduction	4
Installing the OAI Suite	5
OAI Harvester	7
OAI Server program.....	10
OAI Server Configuration.....	11
OAI Browser	13

Introduction

The Axiell OAI suite of programs enables you to harvest data stored on an OAI server and allows other people to harvest data from your Calm server.

The suite consists of a setup program or Installer, a Server program, a Server Configuration program, an OAI Harvester and a diagnostic tool called OAI Browser.

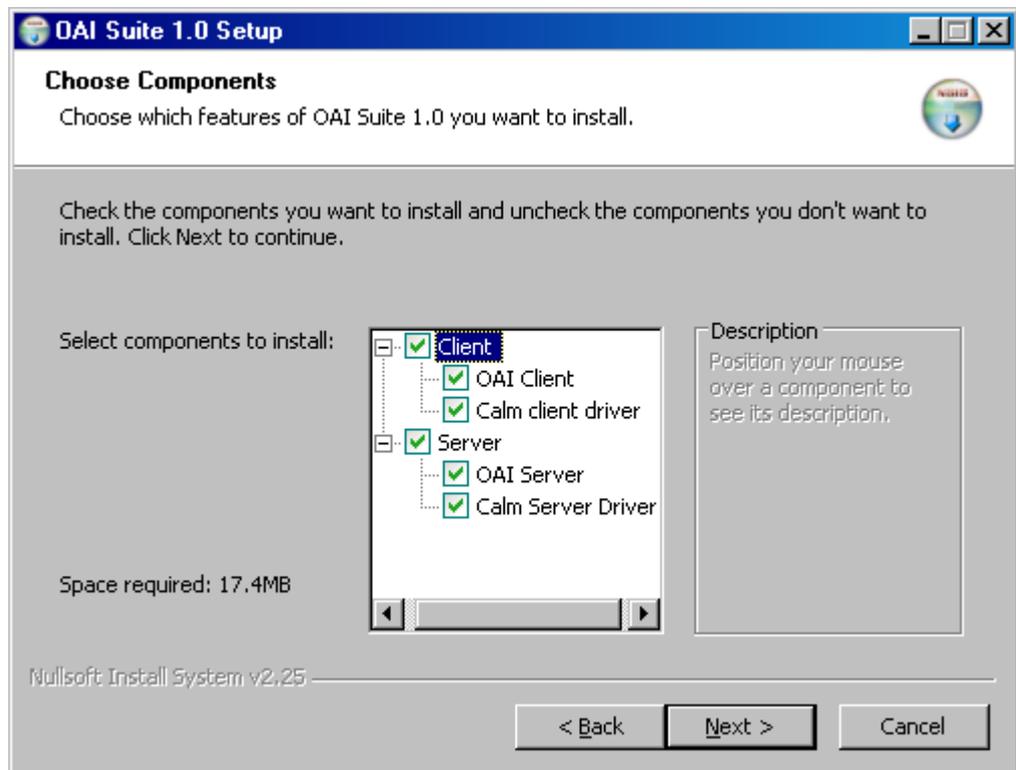
This guide describes how to install the programs and use them.

Installing the OAI Suite

The OAI Setup program can be found on your Calm installation CD. When you run it (as described below) it will install an OAI Server program, Harvester and Browser. It will also automatically create a new virtual folder and install & automatically start an OAI Harvester service.

How to install the OAI Suite:

- Run the Setup program by double-clicking on OAI Suite Setup 4.0.0.197 AnyCpu (.NET 4.0).exe
- On the initial page of the wizard, click Next.
- You will be prompted to enter the password. You can obtain this from the Calm Help Desk. Click Next.
- The next screen (as shown below) asks you which components you wish to install.



Choose the relevant option(s), depending on whether you are installing on a Client or Server machine. It is recommended that you leave all checkboxes underneath Client or Server ticked. Make your choices by clicking on the checkboxes to select or remove components, when ready click on Next.

- If you are installing a Client; choose a folder in which to install the OAI Suite. The default of C:\Program Files\OAI Suite is given, but you can browse for an alternative. Click Next.
- If you are installing a Client; the Setup program will now install and start a service for harvesting. You can choose a user account to create this service under, by entering the user name and password, or leave this page blank to create the service under the local system account. If you do enter user login details here, you will need to use an account that has sufficient permissions to access the internet, your network/domain and the OAI server. Click Next.
- If you are installing a Server; the Webserver Configuration dialogue box is shown next.
Choose a website to install the OAI Suite under, the options given here will depend on the operating system you are running. For example, with Windows XP Professional, the only website in IIS is Default Web Site.
Choose a name for the virtual folder that will point to where the OAI programs are going to be installed, normally OAI, which is the default provided.
Click Next.
- If you are installing a Server; choose a folder in which to install the OAI Suite (as a web application). The default of C:\inetpub\wwwroot\OAI is given, but you can browse for an alternative. Click Install.
- If you are installing a Server; when installation is complete, you will notice a dialogue box titled 'Configure OAI Server' appears. You will need to complete the details in this box and press OK - see the OAI Server Configuration section below.
- Press Close on the final page of the Setup program.

The OAI Suite of programs are now installed and ready to use. To access them; press the Windows Start button, followed by Programs, then Axiell, and then OAI Suite, or use the icons for the Harvester and Browser on your client desktop.

OAI Harvester

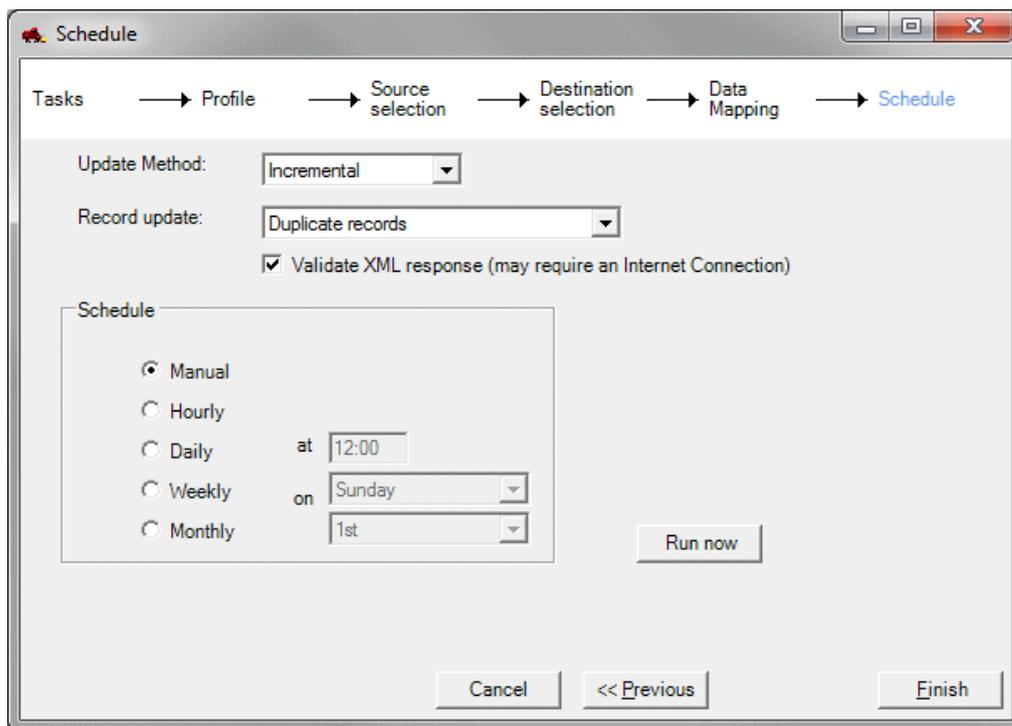
The Harvester is a wizard which enables you to obtain OAI data from servers, either on your own network or via the internet.

You use it to set up scheduled harvests called tasks.

How to use the OAI Harvester:

- To run it; double-click the Harvester icon on your client desktop, or press the Windows Start button, followed by Programs, then Axiell, and then OAI Suite and select OAI Harvester.
- The first screen of the wizard shows any existing tasks. Click Next.
- The next screen asks whether you want to create, edit or delete a task. As you have no existing tasks, leave the only possible option selected – this is 'Create new task'. Click Next.
- Next you need to choose the source of your OAI data. Enter a text description, this will be shown in your list of tasks, to enable you to identify this particular task. Enter the URL of the OAI server that contains the data you wish to harvest. Click Next.
- Choose your destination type. This can either be XML output or Calm Database.
For XML output; you will need to choose the folder in which the harvested data should be stored and a prefix for the output file.
For Calm database; you will need to state the version of Calm you are using, the name of the server Calm is running on, the password of the user you want to login to Calm as (this is only required if you have security set up in Calm), the Calm application that you are running e.g. Archive, the port that the server is listening on (the default port is fine), the username of the user you want to login to Calm as (this is only required if you have security set up in Calm), and the database that you wish the harvested data to be output to.
Click Next.
- The Data Mapping box asks you to enter the format of the source data. The formats available will depend on the source repository you selected earlier (on the source selection screen, 2 dialogue boxes prior to here). The formats shown in the drop-down box are the ones that the server is able to distribute. All OAI servers are required to support OAI Dublin Core. Some servers may support other formats. The Calm OAI server supports OAI Dublin Core, Calm XML format and Europeana.
Choose the data set (click on the button next to the Set field to view a tree structure showing the subsets of data).
Click Next.

- The Schedule dialogue box will appear, as shown:



Choose an Update Method;
either 'Full' which harvests all records regardless of previous harvests,
or
'Incremental' which only harvests records since the last harvest and up
until the end of yesterday.

Please note: If you are harvesting from an OAI repository that only supports date formats with granularity of a day (such as Calm), the Harvester will not harvest any records created or modified today, it will take records from the last COMPLETE day i.e. the day before the harvest is scheduled. This sets a start point for the next harvest.

Choose which type of Record update you require;

If your destination is an XML file, you will normally choose to output duplicate records. The other option of 'Do not update' can be used as a test mode to do a dummy run of your harvest without actually outputting the records.

If your destination is a Calm Database, you have further options and need to decide what to do if a record you are harvesting already exists in the destination database.

- 'Do not update' can be used as a test mode to do a dummy run of your harvest without actually outputting the records.
- 'Duplicate records' will harvest and output all records regardless of whether they already exist in your Calm database.

- 'Merge duplicate records' will add fields from your existing Calm records into the harvested records and delete the original Calm records.
- 'Overwrite duplicate records' will mean that existing records in your Calm database will be deleted if they are duplicated in the harvested records.
- 'Stop if duplicates found' will mean that records are harvested until the point of finding the first duplicate record. When the process stops an appropriate error message will be displayed which will enable you to identify the duplicate record.

Choose when you want the harvest to happen;
for a one-off choose 'Manual', otherwise select one of the other options.

Please note: the 'Hourly' option will harvest on the hour.

For a manual harvest, click Run now.

Click Finish.

If you have chosen to validate the OAI response, the Harvester will check that the XML returned corresponds to the published schema as expected. If not, an error message will be displayed.

- Once you have set up a task in this way, it is easy to edit or delete it. To do this; run the Harvester again, on the Profile page click the 'Edit existing task' or 'Delete task' button and select the relevant task from the drop-down box next to the button. Click Next.

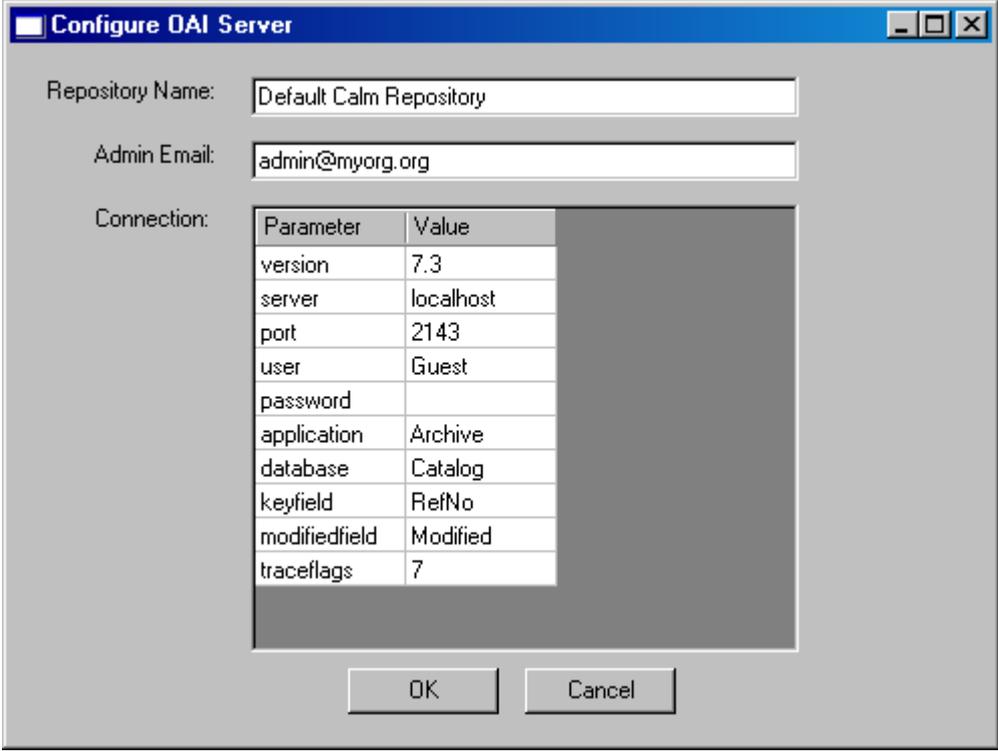
OAI Server program

This program is basically 'behind the scenes'. It waits for OAI clients, handles OAI requests and communicates with your Calm system.

This Server program produces a web page that you can view to check that it is working correctly. The page also provides a link to an OAI identify query to enable you to check that your OAI server is configured correctly. To view the web page: press the Windows Start button, select Programs, then Axiell, then OAI Suite, click on OAI Server.

OAI Server Configuration

This dialogue box appears when you install the OAI Suite. You can also run it at any time by clicking on the Windows Start button, selecting Programs, then Axiell, then OAI Suite and clicking on OAI Server Configuration. The following dialogue box will be shown:



The screenshot shows a Windows-style dialog box titled "Configure OAI Server". It has three main sections:

- Repository Name:** A text box containing "Default Calm Repository".
- Admin Email:** A text box containing "admin@myorg.org".
- Connection:** A table with two columns: "Parameter" and "Value".

Parameter	Value
version	7.3
server	localhost
port	2143
user	Guest
password	
application	Archive
database	Catalog
keyfield	RefNo
modifiedfield	Modified
traceflags	7

At the bottom of the dialog box are two buttons: "OK" and "Cancel".

Enter the details of your OAI Server where Calm records are stored. This includes:

version - The version of Calm you are using.

server - The name of the server Calm is running on.

port - The port that the server is listening on.

user - The username to be used when logging into Calm (this is only required if you have security set up in Calm).

password - The password to be used when logging into Calm (this is only required if you have security set up in Calm).

application - The Calm application that you are running e.g. Archive.

database - The name of the Calm database.

keyfield - The key field for that database; a field that is guaranteed to be unique, for example RefNo for the Catalog database in the ALM application (called Archives), PersonCode for the Persons database in the ALM application, or ObjectNumber for the Catalog database in the Records Management application (called Records). This is used for merging records and detecting duplicate records.

modifiedfield - The name of the Calm field to be automatically updated with today's date on all harvested records, currently this field is called 'Modified' in all Calm databases.

traceflags - It is not recommend that you change this setting unless directed to do so by Calm Helpdesk staff as a diagnostic measure, ignoring this advice will lead to your event log filling up.

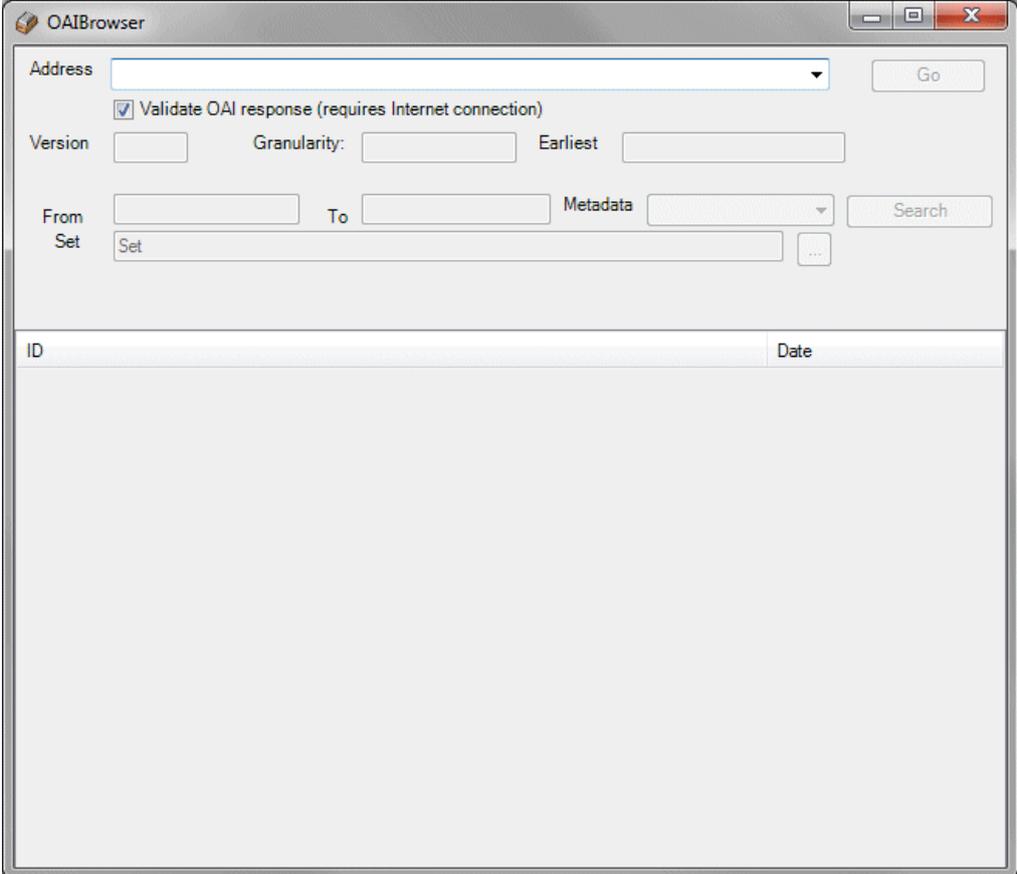
Please note: Any records on your server with a blank Modified field and/or blank whichever key field you have chosen above (for example RefNo), will not be accessible to be harvested.

OAI Browser

This is a diagnostic tool for OAI servers, provided so you can make sure your server is configured correctly or check out any problems. You could also use it to find out how other OAI servers are configured if you wish to.

To run the browser; either click on the icon on your client desktop, or click on the Windows Start button, choose Programs, then Axiell, followed by OAI Suite, and click on OAI Browser.

The following dialogue box will appear:



The screenshot shows the OAI Browser application window. At the top, there is a title bar with the text "OAIBrowser" and standard window control buttons. Below the title bar, there is a "Go" button next to an "Address" dropdown menu. Underneath, there is a checked checkbox labeled "Validate OAI response (requires Internet connection)". The next line contains three text labels: "Version", "Granularity:", and "Earliest", each followed by an empty input box. The following line has four text labels: "From Set", "To", "Metadata", and "Search", each followed by an input box or a dropdown menu. The bottom section of the window is a table with two columns: "ID" and "Date".

Type the URL of your OAI server into the Address line (or select from the drop-down box) and click on Go to retrieve the information.

The Version, Granularity and Earliest fields on the next line will then be automatically filled.

To find and display data, you need to complete the From, To, Metadata and Set fields:

What you enter in the From and To fields will depend on the Granularity field above. In this case, enter dates, in the format *yyyy-mm-dd*, to find records last modified during this period of time.

In the Metadata drop-down box choose the XML format for records to be returned and shown in, either calm_xml or oai_dc (Dublin Core).

With sufficient knowledge, it is possible to add other metadata formats to be supported, by creating an xsl stylesheet and adding details to the metadata section of the file CalmDataSource.xml

Click the button next to the Set field to select a subset of data. The top level here e.g. Default Calm Repository, is set in the Server Configuration program, (when you make an entry in the Repository Name field on the dialogue box). Further, lower levels are specified in the file called CalmDataSource.xml, which can be found in the bin folder below the web application folder where you have installed the OAI suite, e.g. C:\inetpub\wwwroot\oai\bin. You can edit this file (with a text editor) to add any lower levels as you wish.

Please note: When you edit this file the web application will be stopped and re-started.

Press the Search button to look for records on the server matching this criteria. The records will be listed in the box below. If more than 50 records are found, just the first 50 are displayed (to enable a reasonably quick return of data). You are then given the option to 'Get All Records', which is obviously more time consuming.

Once you have the list, you can double-click on a record to view it in your chosen XML format. This should prove your OAI Server is configured correctly to be interrogated or will help you to spot and solve any problems.

If you have chosen to validate the OAI response, the Browser will check that the XML returned corresponds to the published schema as expected. If not, an error message will be displayed.