



# ONE Shared Authority Control ONESAC

ELAG 2004

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[www.portia.dk](http://www.portia.dk)



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# ONE Association

- Sharing of bibliographic facilities
  - <http://www.oneassociation.org/>
- Incorporated in 2003
  - Mats Herder, Libris: Chairman
  - Neil Wilson, British Library: Deputy Chairman
  - Poul Henrik Jørgensen, Portia: Secretary
- Common facilities
  - Shared data licenses
  - Technical profile specifications
  - Search/Retrieve Services (Z39.50 & SRU)
  - ONE Shared Authority Control (ONESAC)



# ONESAC Objectives

- Reuse of relevant authority data
- Better efficiency by limiting duplication of effort
- Improve quality by use of National Bibliographic data sources
- Provide new services by consolidation of distributed data sources



# Background

- IFLA FRBR and FRANAR data models
- RDF and OWL Semantic Web standards
- VisualCat cataloging system



# FRANAR & FRBR

- **Functional Requirements and Numbering of Authority Records**
- **Conceptual Model for shared Authority Data**
  - [http://www.unifi.it/universita/biblioteche/ac/relazioni/patton\\_eng.pdf](http://www.unifi.it/universita/biblioteche/ac/relazioni/patton_eng.pdf)
- **Based on IFLA Functional Requirements for Bibliographic Records (FRBR)**
  - <http://www.ifla.org/IV/ifla70/papers/007e-Jonsson.pdf>



# VisualCat

- VisualCat Cataloguing Client
  - <http://www.portia.dk/websites/projects.htm>
- Data exchange via Z39.50 Union Catalogue Profile or FTP
- Converts different metadata standards to MARC/XML
- Represents relevant relations with RDF



# RDF and OWL

- **W3C Resource Description Framework**
  - Semantic information about Web resources
  - Based on predicate logic
  - <http://www.w3.org/RDF/>
- **W3C Web Ontology Language**
  - Specification of Classes and Properties
  - Based on RDF Schema (RDFS)
  - <http://www.w3.org/2001/sw/WebOnt/>

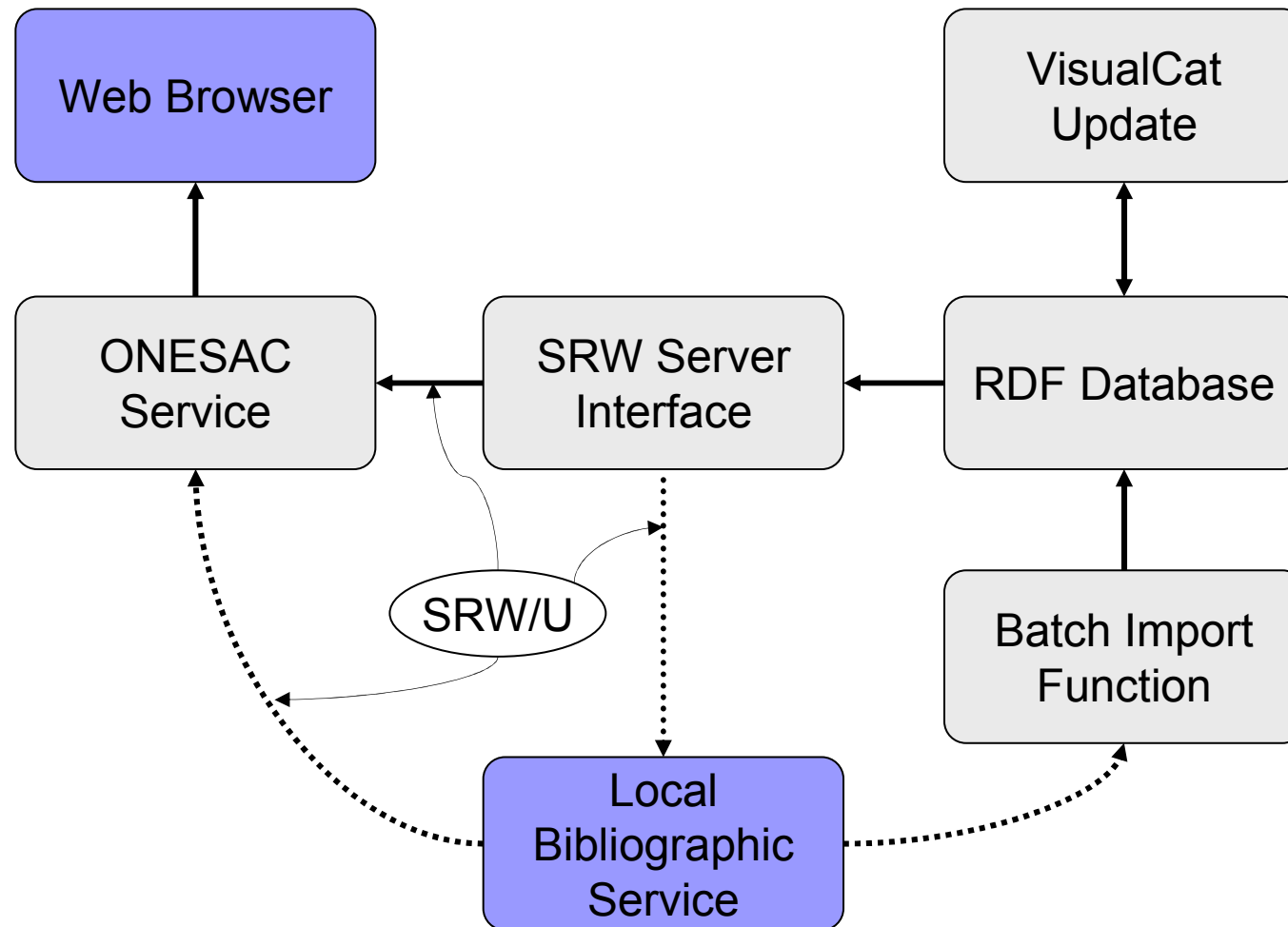




# Strategy

- Physical consolidation of authority data
  - Instead of distributed virtual service
- Logical consolidation via inference
  - Instead of converting to common metadata format
- User-friendly interactive Web-service
  - Instead of Z39.50 UCP Client/Server
- SRW Server
  - Standard interface to integrate other systems
- Preservation of original metadata types
  - Most metadata formats can be imported unchanged
- RDF database structure
  - Provides method to link composite objects

# Architecture





# Features

- ONESAC Service for browsing authority data
- SRW Server API for integrating local systems
- RDF Database to consolidate data
- Batch Import from local systems
- SRW/U Client to search external resources
- VisualCat for interactive editing



# ONESAC Service

- Interactive Service for cataloguers
- Accessed via browser
- Simple and intuitive user-interface
- Browse of relevant authority types
  - Personal names (normalized)
  - Corporate names
  - Conference names
  - Subjects
- Link to full authority record
- Link to search related external bibliographic data



# SRW Server

- Search & Retrieve Web Service (SRW)
  - <http://www.loc.gov/z3950/agency/zing/>
- Server Interface for Search and Retrieval
- Interface (API) for integration ONESAC service with local systems
- Supplementary SRU service based on URL encoding via HTTP



# RDF Database

- RDF Subjects, Predicates and Objects
- Everything has a Persistent Identifier (URI)
- Unique names handled by RDF XML Namespaces (xmlns)
- Relations between both composite objects, simple data values or external resources
- Both Subjects, Relations and Values are searchable
- Scalable to very large RDF databases



# Batch Import

- Large scale batch import from existing systems
- Can handle any metadata standard
- Converts external formats to RDF – but preserve the original semantic information
  - MARC ISO 2709
  - Marcxml
  - RDF/XML
  - Others ...
- Special character representations converted to UNICODE



# SRW/U Client

- Client for SRW Services
- Integrated with ONESAC Service
- Retrieve related bibliographic records from external Services
- Supplementary SRU client
  - Utilize stylesheet to format records from external SRU Servers





# Status May 2004

- Started December 2003
- BIBSYS, British Library, Italian National Library, National Library of Finland, Library of Congress, LIBRIS, Portia I/S, Royal Library of Sweden, UN FAO
- Development and test spring 2004
- Database size May 2004
  - 2.400.000 Authority records
  - 43 million objects and relations

# Browse Persons

The screenshot shows a Microsoft Internet Explorer browser window titled "Onesac - Microsoft Internet Explorer". The address bar is empty. The main content area displays the "Onesac" logo and the text "One Shared Authority Control". Below this is a search input field containing "strindberg" and a "Search" button. There are three radio buttons for search criteria: "Person name" (selected), "Corporate name", and "Subject". The footer of the page reads "portia.dk 2004".

Strindberg, August, 1849-1912	bl.uk
Strindberg, August, 1849-1912	kb.se
Strindberg, Axel, 1910-	bl.uk
Strindberg, Axel, 1910-2000	kb.se
Strindberg, Fredrik, f. 1897	kb.se
Strindberg, Frida	kb.se
Strindberg, Henrik, 1954-	kb.se
Strindberg, Henrik, 1954-	kb.se
Strindberg, Henrik, 1954-., Minne	kb.se
Strindberg, Nils, 1872-1897	bl.uk
Strindberg, Oskar	kb.se

# Display Person

Onesac Present Marc Record - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media Print

Address  Go Norton AntiVirus

## Onesac

One Shared Authority Control portia.dk 2004

```
type Authority
leader 00518cz 2200181n 4500
001 94541
005 20031001155649.0
008 011206n| ac|nnaabn |n aaa d
035 ## $a (LIBRIS)A000063495
040 ## $b swe $d S
043 ## $a sw
100 1# $a Strindberg, August, $d 1849-1912 ONE BL
400 1# $a Strindberg, Johan August, $d 1849-1912
400 1# $a Strindberg, A., $d 1849-1912
400 1# $a Strindberg, Aug. $d 1849-1912
400 1# $a Estrindberg, Agüst, $d 1849-1912
670 ## $a NE
678 ## $a Skönlitterär författare och dramatiker
```

Links to ONE- and BL-bibliographic data

ONE BL

# ONE link from ONESAC

The screenshot shows a web browser window with the address bar containing the URL: `http://lugbuurz.libris.kb.se/sru/one?operation=searchRetrieve&version=1.1&query=bath.personalNa - Mic...`. The browser's address bar is empty, and the page content is XML search results. The results are displayed as a list of datafields, each containing subfields with codes 'a', 'b', 'c', 'd', and 'v'. The subfields contain the author's name, the title of the work, and the publisher and year.

```
<datafield ind1="0" ind2="0" tag="100">
  <subfield code="a">Strindberg, August,</subfield>
  <subfield code="d">1849-1912.</subfield>
</datafield>
<datafield ind1="1" ind2="0" tag="240">
  <subfield code="a">Brott och brott.</subfield>
  <subfield code="l">German</subfield>
</datafield>
<datafield ind1="1" ind2="0" tag="245">
  <subfield code="a">Rausch :</subfield>
  <subfield code="b">eine Komödie in vier Akten /</subfield>
  <subfield code="c">August Strindberg.</subfield>
</datafield>
<datafield ind1="" ind2="" tag="260">
  <subfield code="a">Berlin :</subfield>
  <subfield code="b">Oesterheld & Co.,</subfield>
  <subfield code="c">1919.</subfield>
</datafield>
<datafield ind1="" ind2="" tag="300">
</datafield>
<datafield ind1="" ind2="4" tag="440">
  <subfield code="a">Die Rollen der Emmy Sonnemann ;</subfield>
  <subfield code="v">4</subfield>
</datafield>
<datafield ind1="1" ind2="" tag="490">
  <subfield code="a">August Strindbergs Bühnenwerke / in neuer
  Übersetzung von Heinrich Coehel :</subfield>
```

# BL link from ONESAC

ONE - LC - "Strindberg, August," - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites Media

Address Go Norton AntiVirus

**BRITISH LIBRARY**

[ONE - LC](#) - ONE Consortium - LC File  
Hits : 59 - Query : "Strindberg, August," ... [More Records](#)

"Strindberg, August,"

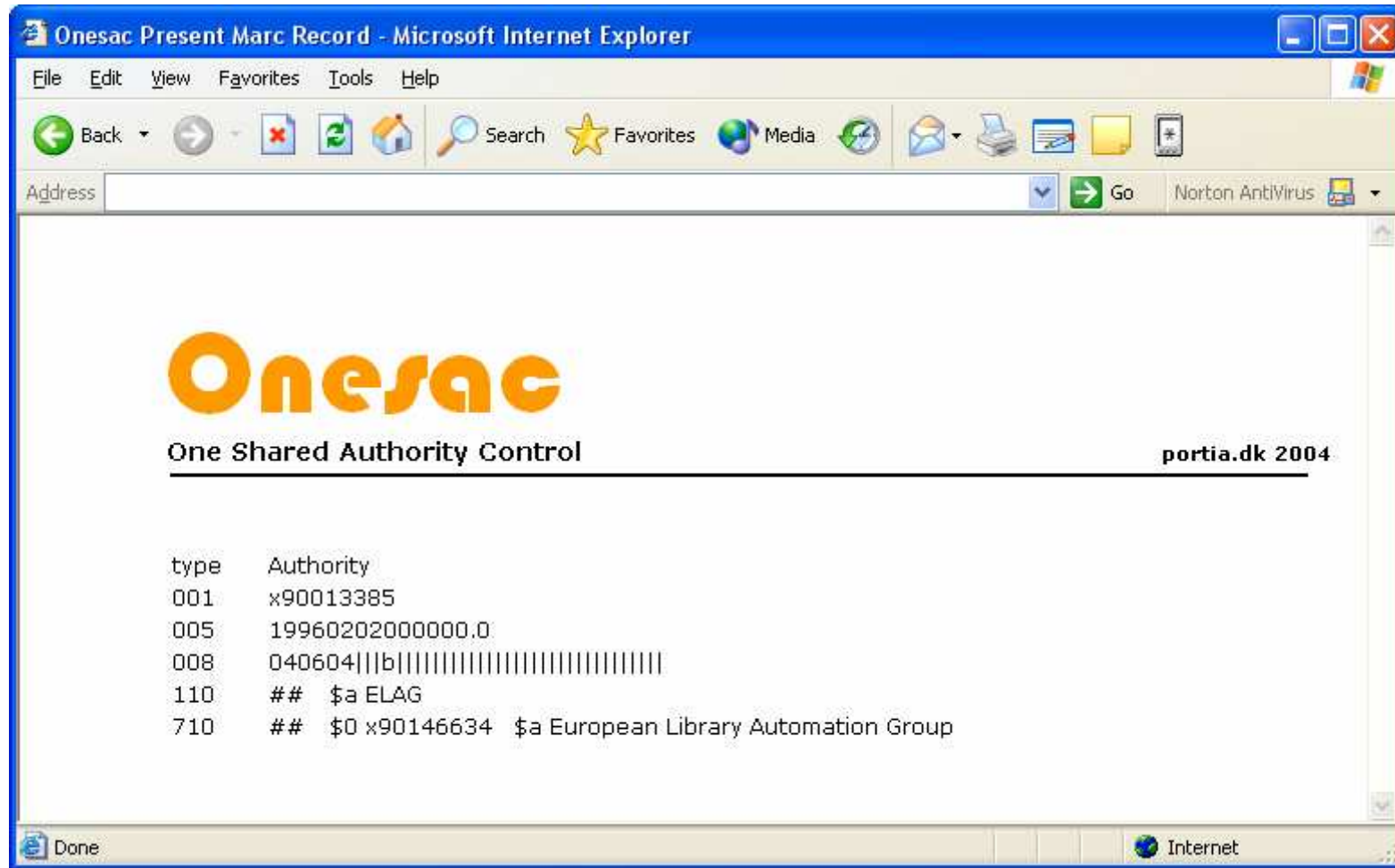
- [1](#) **Rausch : eine Komödie in vier Akten / August Strindberg.** / Strindberg, August, 1849-1912. - 1919 - text. .
- [2](#) **Jag blir Galen : Strindberg, vansinnet och vetenskapen / Ulf Olsson.** / Olsson, Ulf. - 2002 - text. .
- [3](#) **Strindberg and modernist theatre : post-inferno drama on the stage / Frederick J. Marker and Lise-Lone Marker.** / Marker, Frederick J. - 2002 - text.
- [4](#) **The Father / August Strindberg.** / Strindberg, August, 1849-1912. - 2003 - text. .
- [5](#) **Strindberg i Lund : en antologi / av Grönan Lundstedt.** / Lundstedt, Grönan, 1943- - 2001 - text. .
- [6](#) **Anvisning att på 60 minuter bliva konstnär / August Strindberg.** / Strindberg, August, 1849-1912. - 2001 - text. .
- [7](#) **Det talade ordet : om Strindbergs dramadialog / Egil Trønqvist.** / Trønqvist, Egil, 1932- - 2001 - text. .
- [8](#) **Strindby?ri-So?na?ta?-y ta?rma?yi la-ny?wa?n Ra?ynha?rt u-By?rma?nda? : khwy?ndnawa-y piyas-i "So?na?ta?-y ta?rma?yi" la-ny?wa?n did-i du? r?izhiso?rda? / nu?sini, Da?na? R?a?uf. / R?a?uf, Da?na? - 2001 - text. .**
- [9](#) **Selected poems of August Strindberg / edited and translated by Lotta M. Lfögren.** / Strindberg, August,

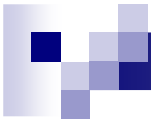
Done Internet

# Browse Corporations



# Display Corporation





# Browse Subjects

Onesac - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites Mark History Home

Address  Go Norton AntiVirus

## Onesac

One Shared Authority Control

Person name  Corporate name  Subject

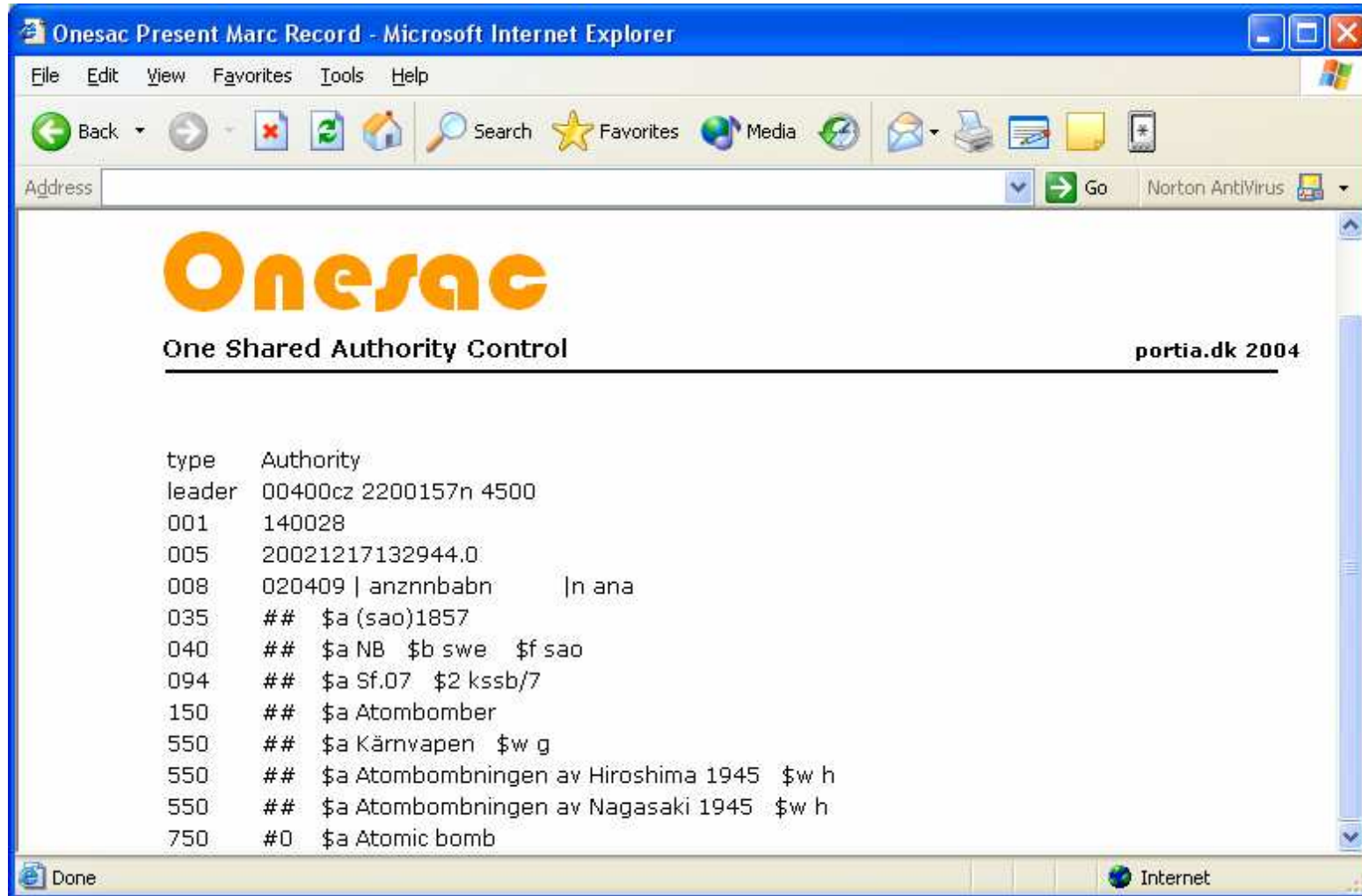
portia.dk 2004

<a href="#">Atombomber</a>	kb.se
<a href="#">Atombombningen av Hiroshima 1945</a>	kb.se
<a href="#">Atombombningen av Nagasaki 1945</a>	kb.se
<a href="#">Atomer</a>	kb.se
<a href="#">Atomergisamarbete</a>	kb.se
<a href="#">Atomforskningsinstitutioner</a>	kb.se
<a href="#">Atomfysik</a>	kb.se
<a href="#">Atomism</a>	kb.se
<a href="#">Atomkärnor</a>	kb.se
<a href="#">Atomklyvning</a>	kb.se
<a href="#">Atompektra</a>	kb.se
<a href="#">Atomstruktur</a>	kb.se

Internet



# Display Subject



The screenshot shows a Microsoft Internet Explorer window titled "Onesac Present Marc Record - Microsoft Internet Explorer". The browser's address bar is empty. The main content area displays the "Onesac" logo in orange, followed by the text "One Shared Authority Control" and "portia.dk 2004". Below this, a MARC record is displayed in a plain text format. The record includes fields for type, leader, and various subject terms with their corresponding codes and values.

```
type Authority
leader 00400cz 2200157n 4500
001 140028
005 20021217132944.0
008 020409 | anznnbabn |n ana
035 ## $a (sao)1857
040 ## $a NB $b swe $f sao
094 ## $a Sf.07 $2 kssb/7
150 ## $a Atombomber
550 ## $a Kärnvapen $w g
550 ## $a Atombombningen av Hiroshima 1945 $w h
550 ## $a Atombombningen av Nagasaki 1945 $w h
750 #0 $a Atomic bomb
```