

# Managing data for holiday farms in Sardinia with OpenCms

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# Agriturismo Ichnos – Home Page

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Agriturismo Ichnos

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La ricerca viene effettuata su 779 aziende agrituristiche sarde.  
Fonte dati: Assessorato all'Agricoltura della Regione Sardegna. Data ultimo aggiornamento 23 Settembre 2010.

Copyright Agriturismo Ichnos© 2004-2010 ----- Realizzato dalla CORANTO utilizzando OpenCms

# Agriturismoolchnos – what is

The project has been thought out, developed and managed by my company, Coranto Informatica.

The web site Agriturismoolchnos ([www.agriturismoichnos.com](http://www.agriturismoichnos.com)), is used for the collection of data related to the 800 or so holiday farms of Sardinia (Italy).

Upon registration the client can enter and modify data pertaining to their business.

# Agriturismolchnos – a brief history

2004 - The project starts

2005 - The website is on-line

2007 – It was imported to OpenCms

2010 – We decided to upgrade the website

# Agriturismolchnos – upgrade

## Objectives:

- Complete integration on OpenCms
- Use of features of OpenCms
- Use of OAMP Modules

# Agriturismolchnos – upgrade

## Features:

- Use of Lucene search engine
- Multilingual format
- Use of Alkacon OAMP Webform
- Use of Alkacon OAMP Webuser registration

# Agriturismolchnos – upgrade

We need to import the external relational database MySQL to OpenCms's Content Type Custom

# Data import to OpenCms

The process of data import between different systems is of the utmost importance in the IT field.

We were looking for a way of doing this without having to write any lines of code.

How is this done?



# Talend Open Studio



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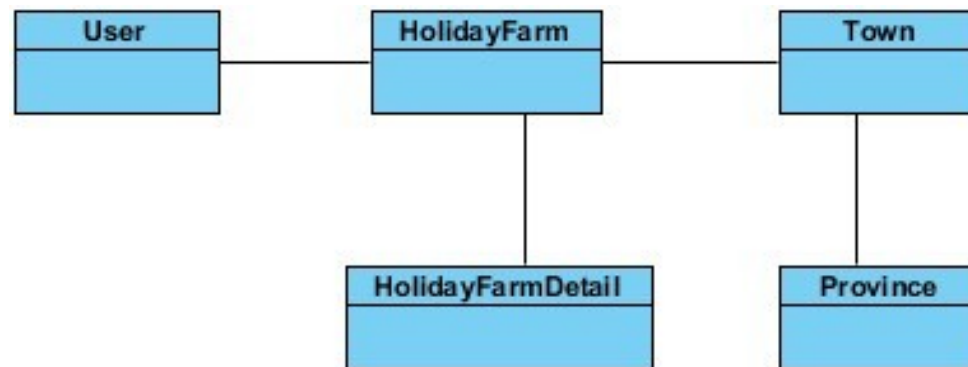
# Talend Open Studio – what is

- It's an open source solution for data integration.
- It improves the efficiency of data integration and job design through a graphical development environment.
- It enables deployment with prebuilt connectors to all source and target systems.
- It supports all types of data integration, data migration and data synchronization operations.

# Data import to OpenCms

- 1) Creation of xsd content definition in OpenCms;
- 2) Creation of the job on Talend Open Studio;
- 3) Configuration of the scheme in Talend Open Studio;
- 4) Data export from the source through Talend Open Studio;
- 5) Data import to OpenCms.

# Database model



# First step - Content definition xsd

```
<!--  
  XSD file for the FarmHoliday content type  
-->  
<!-- 1. Root Element -->  
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified"  
  <xsd:include schemaLocation="opencms://opencms-xmlcontent.xsd"/>  
  <xsd:element name="FarmHolidays" type="OpenCmsFarmHolidays"/>  
  
  <xsd:complexType name="OpenCmsFarmHolidays">  
    <xsd:sequence>  
      <xsd:element name="FarmHoliday" type="OpenCmsFarmHoliday"/>  
    </xsd:sequence>  
  </xsd:complexType>  
  
  <xsd:complexType name="OpenCmsFarmHoliday">  
    <xsd:sequence>  
      <xsd:element name="Name" type="OpenCmsString" minOccurs="1" maxOccurs="1"/>  
      <xsd:element name="ManagerName" type="OpenCmsString" minOccurs="1" maxOccurs="1"/>  
      <xsd:element name="Town" type="OpenCmsString" minOccurs="1" maxOccurs="1"/>  
      <xsd:element name="Province" type="OpenCmsString" minOccurs="1" maxOccurs="1"/>  
    </xsd:sequence>  
  </xsd:complexType>  
</xsd:schema>
```

# First step- Content definition xsd

## Registering the Content Type

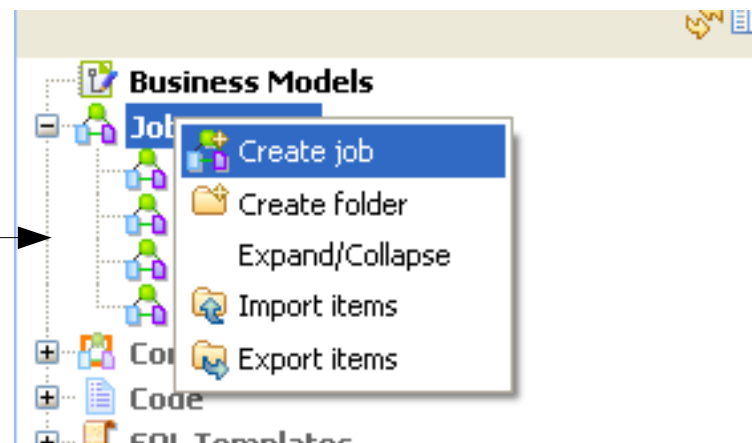
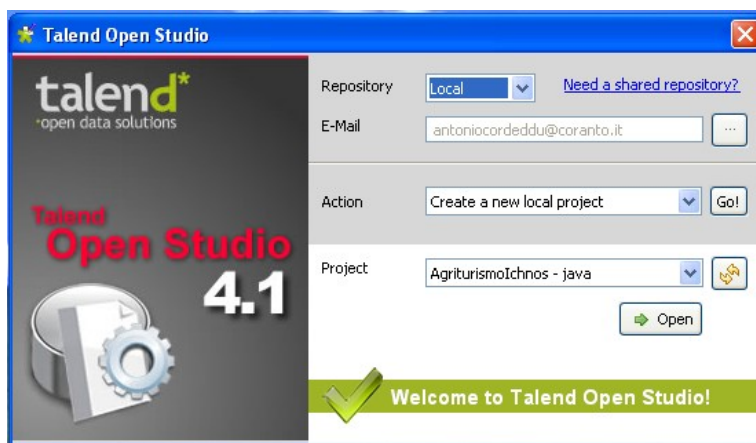
```
<resourcetypes>
  <type class="org.opencms.file.types.CmsResourceTypeXmlContent" name="province" id="3001">
    <mappings>
      <mapping suffix=".pro"/>
    </mappings>
    <param name="schema"/>/system/modules/com.agriturismoichnos/schemas/province.xsd</param>
  </type>
  <type class="org.opencms.file.types.CmsResourceTypeXmlContent" name="townlist" id="3002">
    <mappings>
      <mapping suffix=".list"/>
    </mappings>
    <param name="schema"/>/system/modules/com.agriturismoichnos/schemas/townlist.xsd</param>
  </type>
  <type class="org.opencms.file.types.CmsResourceTypeXmlContent" name="farmholiday" id="3003">
    <mappings>
      <mapping suffix=".holiday"/>
    </mappings>
    <param name="schema"/>/system/modules/com.agriturismoichnos/schemas/farm_holiday.xsd</param>
  </type>
</resourcetypes>
<explorertypes>
  <explorertype name="province" key="fileicon.province" icon="xmlcontent.gif" reference="xmlcontent"
    <newresource uri="newresource_xmlcontent.jsp?newresourcetype=province" order="301" autosetn:
    <accesscontrol>
      <accessentry principal="ROLE.WORKPLACE_USER" permissions="+r+v+w+c"/>
    </accesscontrol>
  </explorertype>
  <explorertype name="townlist" key="fileicon.townlist" icon="xmlcontent.gif" reference="xmlcontent"
    <newresource uri="newresource_xmlcontent.jsp?newresourcetype=townlist" order="302" autosetn:
    <accesscontrol>
      <accessentry principal="ROLE.WORKPLACE_USER" permissions="+r+v+w+c"/>
    </accesscontrol>
  </explorertype>
  <explorertype name="farmholiday" key="fileicon.farmholiday" icon="xmlcontent.gif" reference="xmlcontent"
    <newresource uri="newresource_xmlcontent.jsp?newresourcetype=farmholiday" order="303" autosetn:
    <accesscontrol>
      <accessentry principal="ROLE.WORKPLACE_USER" permissions="+r+v+w+c"/>
    </accesscontrol>
  </explorertype>
</explorertypes>
```

# First step- Content definition xsd

## Registering the Content Type

```
<type class="org.opencms.file.types.CmsResourceTypeXmlContent" name="farmholiday" id="3003">  
  <mappings>  
    <mapping suffix=".holiday"/>  
  </mappings>  
  <param name="schema">/system/modules/com.agriturismoichnos/schemas/farm_holiday.xsd</param>  
</type>
```

# Second step - creation of the job on TOS





# Second step - creation of the job on TOS – MySQL input configuration

The screenshot displays the TOS (Tool Object Studio) interface. On the left, a tree view shows the 'Databases' folder expanded to 'MySQL', with 'tMysqlInput' selected. An arrow points from this component to the main workspace, where a 'tMysqlInput\_1' component is placed on a grid. Below the workspace, the configuration panel for 'Input\_1' is visible. The configuration includes the following fields:

- Property Type: Repository
- DB (MYSQL):MySQLIchnos
- DB Version: Mysql 5
- Use an existing connection:
- Host: "localhost" (Port: "3306")
- Database: "coranto\_it\_agriturismoichnos"
- Username: "root" (Password: \*\*\*\*\*)
- Schema: Built-In (Edit schema)
- Table Name: "agr\_azienda"
- Query Type: Repository
- DB (MYSQL):MySQLIchnos - Q\_Aziende
- Query: "SELECT a.IdAzienda, a.NomeAzienda, a.NomeGestore, a.IdComune,"

The 'Guess schema' button is circled in red.

# Second step - creation of the job on TOS – XML output

The image illustrates the second step in creating a job on TOS for XML output. It is divided into two main sections:

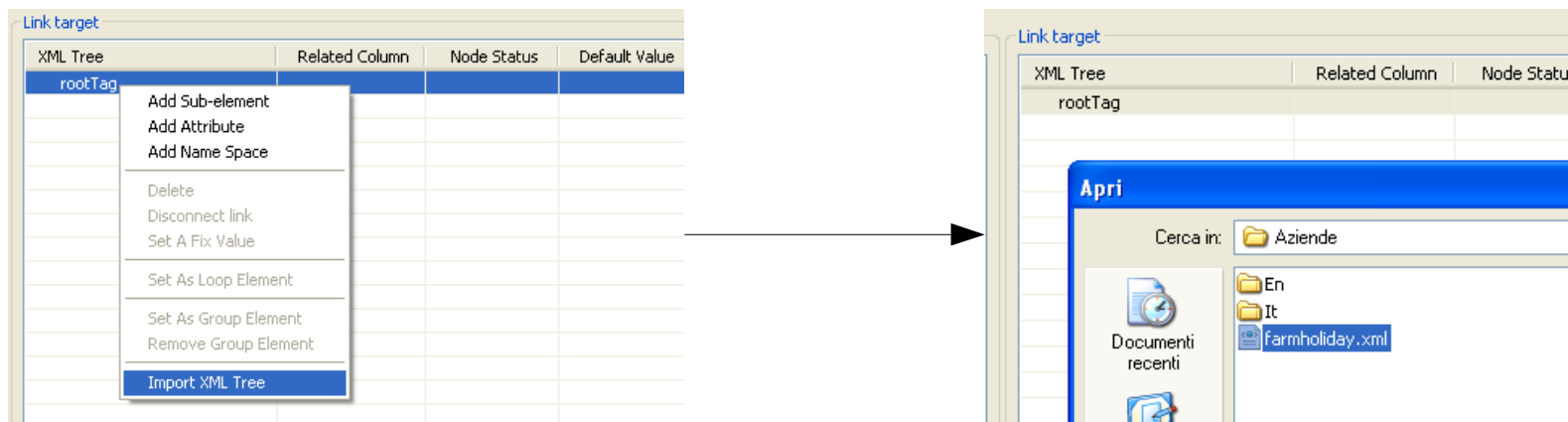
**Left Section: Component Selection**

- A tree view on the left shows the 'XML' category expanded, with 'tAdvancedFileOutputXML' selected and highlighted in orange.
- Below the tree, a list of XML-related components is shown: tAdvancedFileOutputXML, tDTDValidator, tExtractXMLField, tFileInputXML, and tFileOutputXML.
- A tooltip for 'tAdvancedFileOutputXML' states: "Creates an XML structure from rows broken down into fields".

**Right Section: Job Design and Properties**

- The top part shows a job design canvas with a single component 'tAdvancedFileOutputXML\_1' connected to an input line labeled 'row1 (Main)'.
- Below the canvas, the 'Properties' window for 'tAdvancedFileOutputXML\_1' is open, showing the following settings:
  - Property Type: Built-In
  - File Name: "C:/FarmHoliday/it\_test/Farm.holiday"
  - Schema: Built-In
  - Options:  Append the source xml file,  Generate compact file,  Include DTD or XSL

# Third step – configuration of the scheme in TOS



# Third step – configuration of the scheme in TOS

XML Tree	Default Value
[-] FarmHolidays	
@xmlns:xsi	http://www.w3.org/2001/XMLSchema-instance
@xsi:noNamespaceSchemaLocation	opencms://system/modules/com.agriturismoichnos/schemas/farm_holiday.xsd
[-] FarmHoliday	
@language	it
Name	
ManagerName	
Town	
Province	
Place	
[-] PathPhoto	
[-] link	
@type	WEAK
target	
uuid	aaaaaaaa-bbbb-cccc-dddd-eeeeeeeeeeee

# Third step – configuration of the scheme in TOS

Link target

XML Tree	Related Column	Node Status	Default Value
[-] FarmHolidays			
@xmlns:xsi		-	http://www.w...
@xsi:noNamespaceSchem		-	opencms://sys...
[-] FarmHoliday		loop element	
@language		-	it
Name	NomeAzienda		
ManagerName	NomeGestore		
Town	NomeComune		
Province	NomeProvincia		

# Third step – configuration of the scheme in TOS

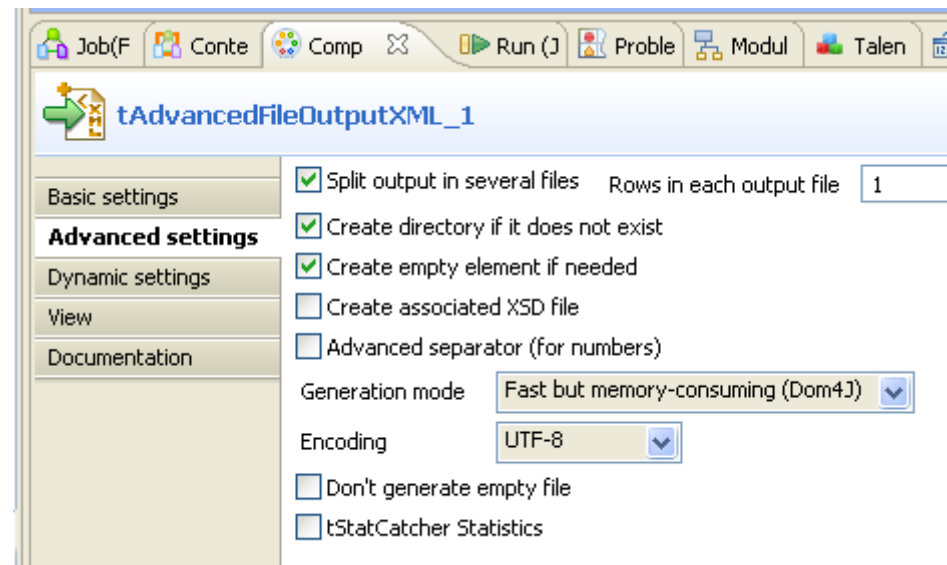
The screenshot displays the configuration interface for linking source and target XML elements. The interface is divided into two main sections: 'Linker source' and 'Link target'.

**Linker source:** A list of source XML elements is shown, including IdAzienda, NomeAzienda, NomeGestore, IdComune, Localita, PathFoto, PeriodoApertura, Tipologia, DescrizioneCamere, Servizi, Attivita, PastoTipico, PrezzoPastoMin, PrezzoPastoMax, PrezzoPernotta..., PrezzoPernotta..., PrezzoPernotta..., PrezzoPernotta..., PrezzoMezzaPen..., PrezzoMezzaPen..., PrezzoPensione..., PrezzoPensione..., PrezzoMonolocale, and PrezzoAgricamp... Blue arrows indicate the mapping of these elements to the target XML structure.

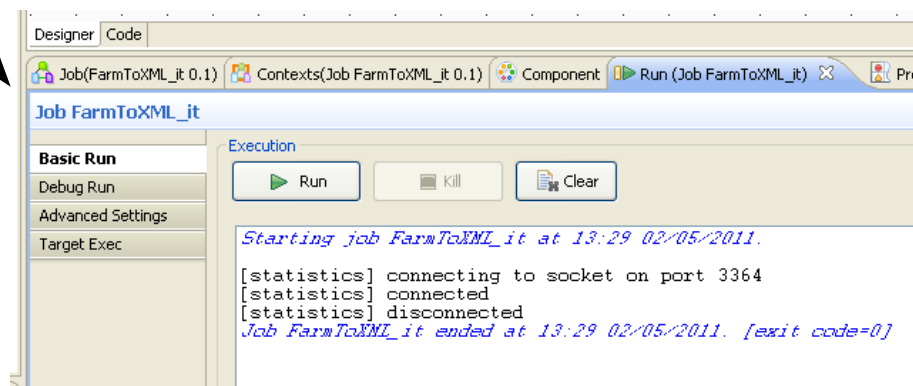
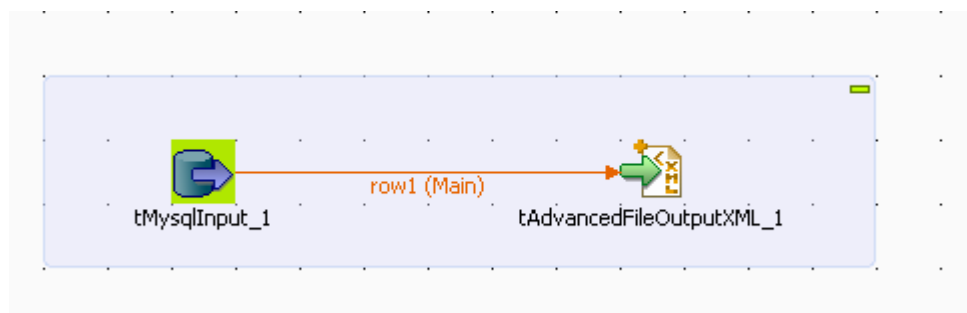
**Link target:** A table shows the target XML structure with columns for XML Tree, Related Column, Node Status, and Default Value.

XML Tree	Related Column	Node Status	Default Value
FarmHolidays			
@xmlns:xsi		-	http://www.w
@xsi:noNamespaceSchem...		-	opencms://sy:
FarmHoliday		loop element	
@language		-	it
Name	NomeAzienda		
ManagerName	NomeGestore		
Town	NomeComune		
Province	NomeProvincia		
Place	Localita		
PathPhoto			
link			
@type		-	WEAK
target	PathFoto		
uuid			aaaaaaaa-bbt
OpeningPeriod	PeriodoApertura		
Typology	Tipologia		
RoomDescription	DescrizioneCamere		
Services	Servizi		
Activities	Attivita		
TypicalMeal	PastoTipico		

# Third step – configuration of the scheme in TOS



# Fourth step - data export from the source through TOS



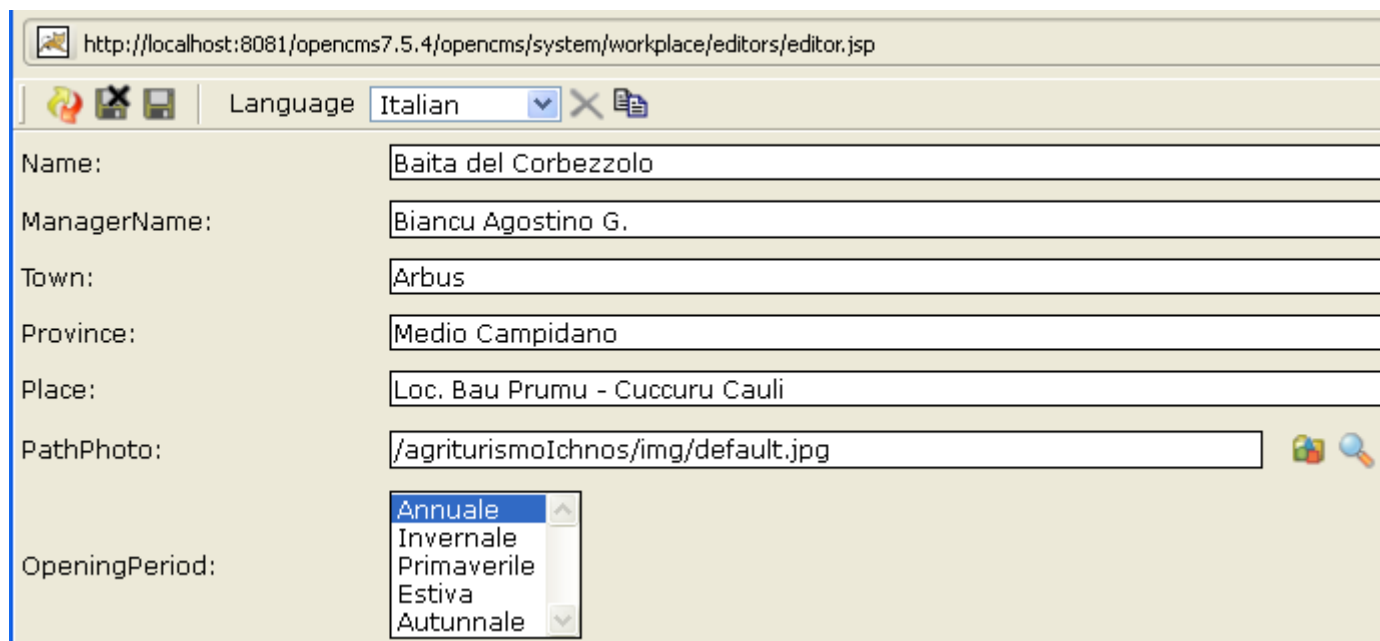


# Fourth step - data export from the source through TOS



```
<?xml version="1.0" encoding="UTF-8"?>
<FarmHolidays xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="opencms://system/modules/com.agriturismoichnos,
  <FarmHoliday language="en">
    <Name>Su Zinnibiri</Name>
    <ManagerName>CONCAS Anna</ManagerName>
    <Town>Arbus</Town>
    <Province>Medio Campidano</Province>
    <Place>Loc. Campu Prama</Place>
    <PathPhoto>
      <link type="WEAK">
        <target>/sites/default/agriturismoIchnos/img/default.jpg</target>
        <uuid>aaaaaaaa-bbbb-cccc-dddd-eeeeeeeeeeee</uuid>
      </link>
    </PathPhoto>
    <OpeningPeriod>Annuale</OpeningPeriod>
```



# Fifth step - data import to OpenCms



The screenshot shows a web browser window with the URL `http://localhost:8081/opencms7.5.4/opencms/system/workplace/editors/editor.jsp`. The browser's language is set to Italian. The form contains the following fields:

Name:	<input type="text" value="Baita del Corbezzolo"/>
ManagerName:	<input type="text" value="Biancu Agostino G."/>
Town:	<input type="text" value="Arbus"/>
Province:	<input type="text" value="Medio Campidano"/>
Place:	<input type="text" value="Loc. Bau Prumu - Cuccuru Cauli"/>
PathPhoto:	<input type="text" value="/agriturismoIchnos/img/default.jpg"/>  
OpeningPeriod:	<input type="list" value="Annuale"/> Annuale Invernale Primaverile Estiva Autunnale

# Final remarks – Search Lucene

Administration View > Search Management > View field configurations > Field configuration overview: farm\_holidays\_field\_

## Field configuration actions



Edit field configuration



Add new field



Delete field configuration

## Field configuration

Name : farm\_holidays\_field\_configuration

Description: The field configuration for farm holidays - simple search





## Fields

Fields (9)

E	M	Name▲
		FarmPhone
		IdLegacy
		ManagerName
		Name
		PathPhoto
		Place
		Province
		Showcase
		Town

# Final remarks – Search Lucene

La Ricerca effettuata ha individuato 36 Aziende Agrituristiche con **Alghero**

	<b>Cuccureddu</b> di Cuccureddu Giovanni P. Loc. Guardia Grande, 84 - Alghero - Sassari Tel. 079-919111	<a href="#">&gt;&gt;&gt; Dettaglio</a>
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	<b>Naturabio</b> di Boi Enrico Reg. Guardia Grande - Alghero - Sassari Tel. 079-919204	<a href="#">&gt;&gt;&gt; Dettaglio</a>

We hope to see you in Sardinia,  
known above all for its beautiful sea



... but there's much more to  
Sardinia than just sea ...



Thank you