

SchoolBell

A Zope 3 Calendar Server

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Quick Background

- Part of SchoolTool, but not school specific
- Funded by Mark Shuttleworth
- Designed by Steve Alexander
- Coded by Programmers of Vilnius and Etria
- GPL
- Migration from Twisted/Zope3/homebrew

SchoolBell Objects

- **Persons**
- **Groups**
- **Resources**

Actions

[Open in iCal](#)

Jump To ...

Month

Year

February						
1	2	3	4	5	6	
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28						

March						
1	2	3	4	5	6	
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

April						
			1	2	3	
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

Calendar for Joe User

Tuesday, 2005-03-22

[← The previous day](#)
Today
[The next day →](#)

07:00	
08:00	<div style="border: 1px solid gray; background-color: #e0f0ff; padding: 2px;"> Get on the train (07:45 - 08:45) ✕ </div>
09:00	
10:00	
11:00	
12:00	
13:00	
14:00	
15:00	
16:00	

Installing SchoolBell into a Zope 3 Instance

- Add the `'schoolbell/src'` directory to the path in `zope.conf`
- Add `package-includes/schoolbell-configure.zcml`
`'<include`
`package="schoolbell.app" />'`

Location: [\[top\]](#) /

Navigation

- [\[top\]](#)
- [++etc++site](#)
- [pycon](#)

Add:

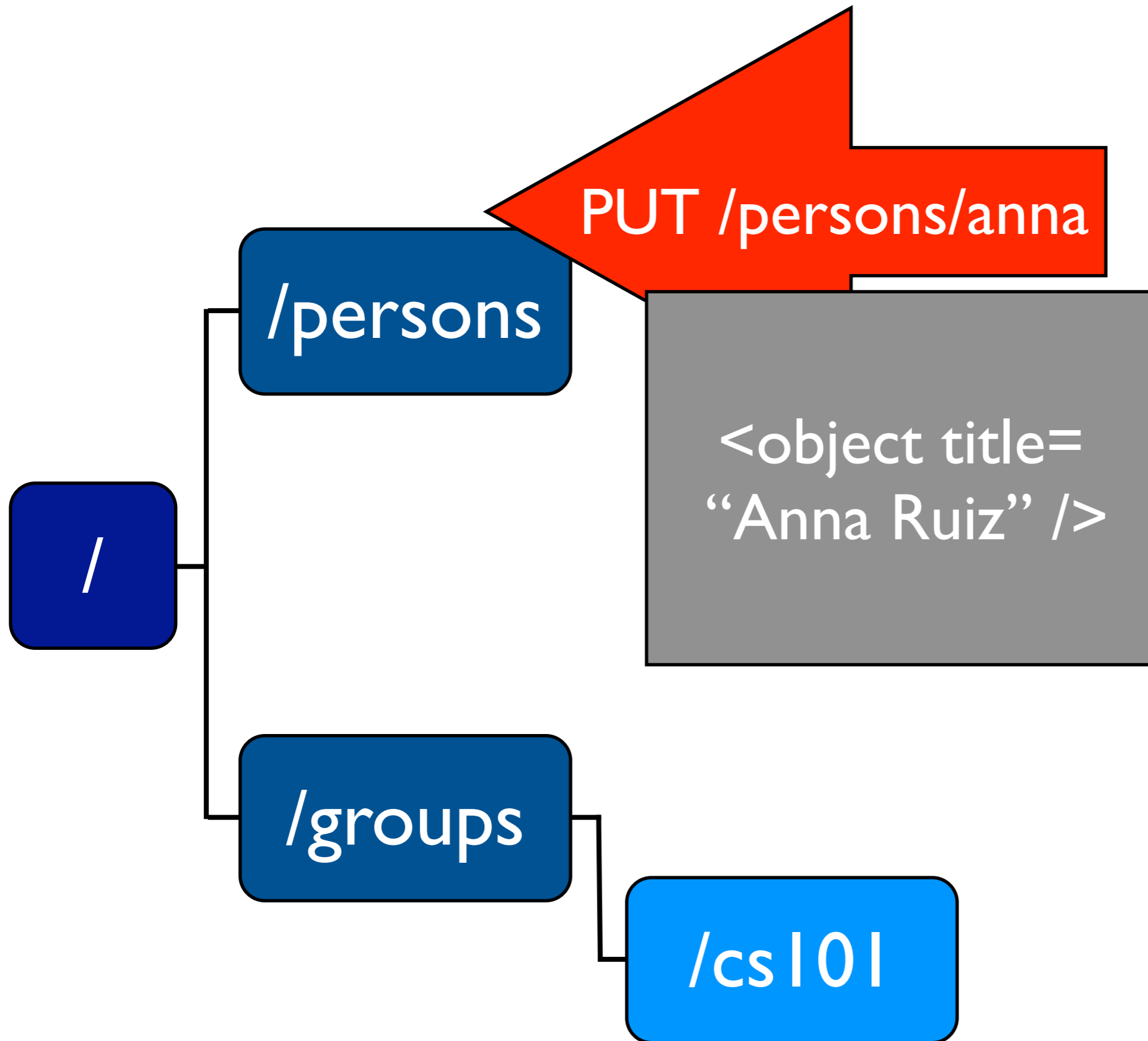
- [Buddy Folder](#)
- [Bug Tracker](#)
- [Case insensitive Folder](#)
- [Checkin Folder](#)
- [DTML Page](#)
- [Demo Pagelet Chooser Content](#)
- [Demo Pagelet Content](#)
- [Demo Widgets](#)
- [File](#)
- [Folder](#)
- [Hello world](#)
- [I18n File](#)
- [I18n Image](#)
- [Image](#)
- [Pluggable-Authentication Browser Session Extractor](#)
- [Python Page](#)
- [SQL Script](#)
- [Schema-based Content](#)
- [SchoolBell](#)

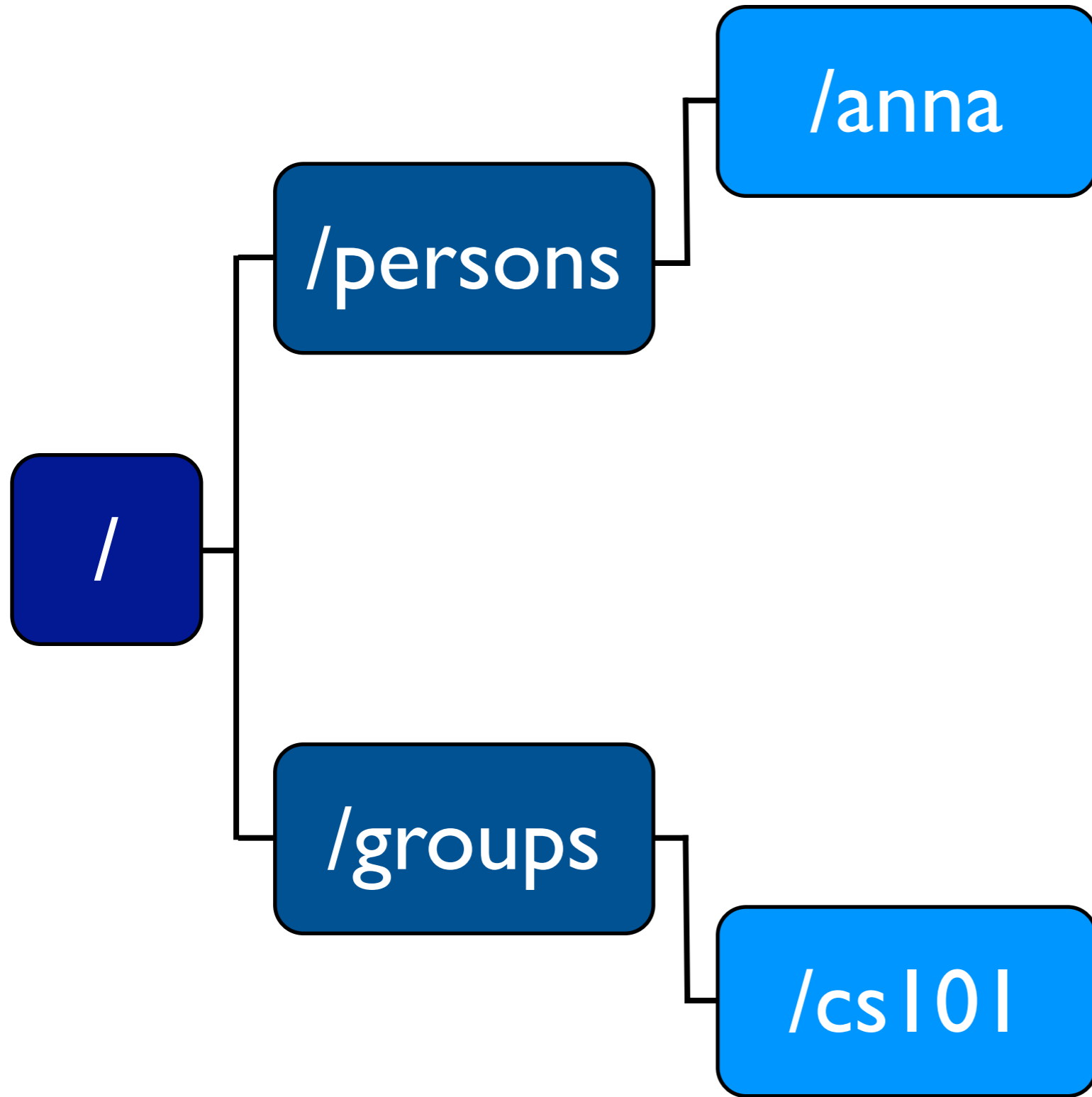
[Contents](#) | [Preview](#) | [Metadata](#) | [Introspector](#)

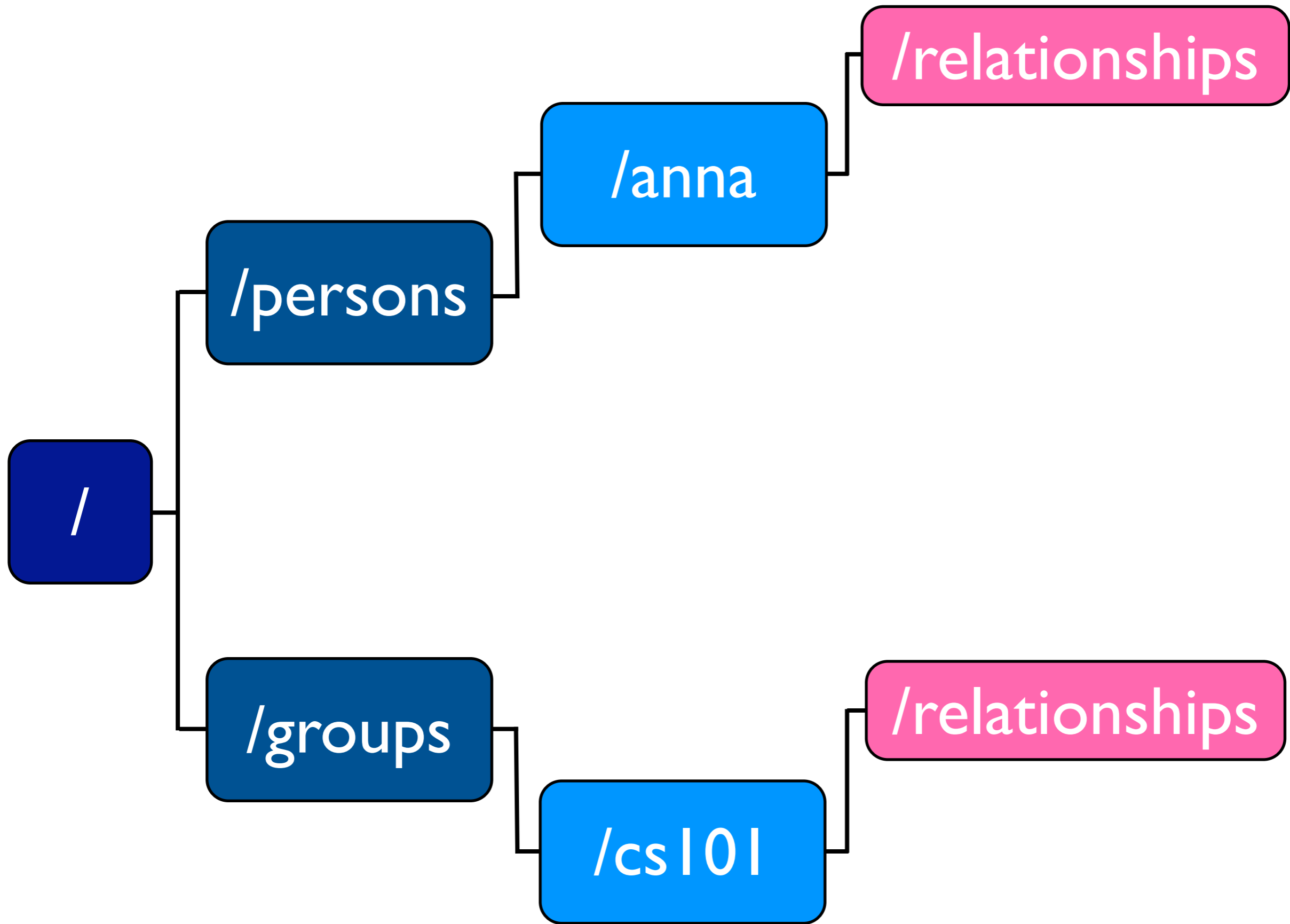
[Manage Site](#) | [Manage Process](#) | [Find](#) | [Add](#) | [Grant](#) | [Errors](#) | [Undo!](#) | [Undo more](#) | [Undo all](#) | [Help](#)

	Name	Title	Size	Created	Modified
	pycon		0 persons	3/23/05 4:42 PM	3/23/05 4:42 PM

[Rename](#) [Cut](#) [Copy](#) [Delete](#)







ns

/anna

/relationships

POST

/persons/anna/relationships

ps

/cs101

```
<relationship
  xlink:type = "simple"
  xlink:href = "/groups/cs101"
  xlink:arcrole =
    "http://schooltool.org/ns/
    member"
  xlink:role =
    "http://schooltool.org/ns/
    membership/member" />
```

/002

/003

ns

/anna

/relationships

/001

ps

/cs101

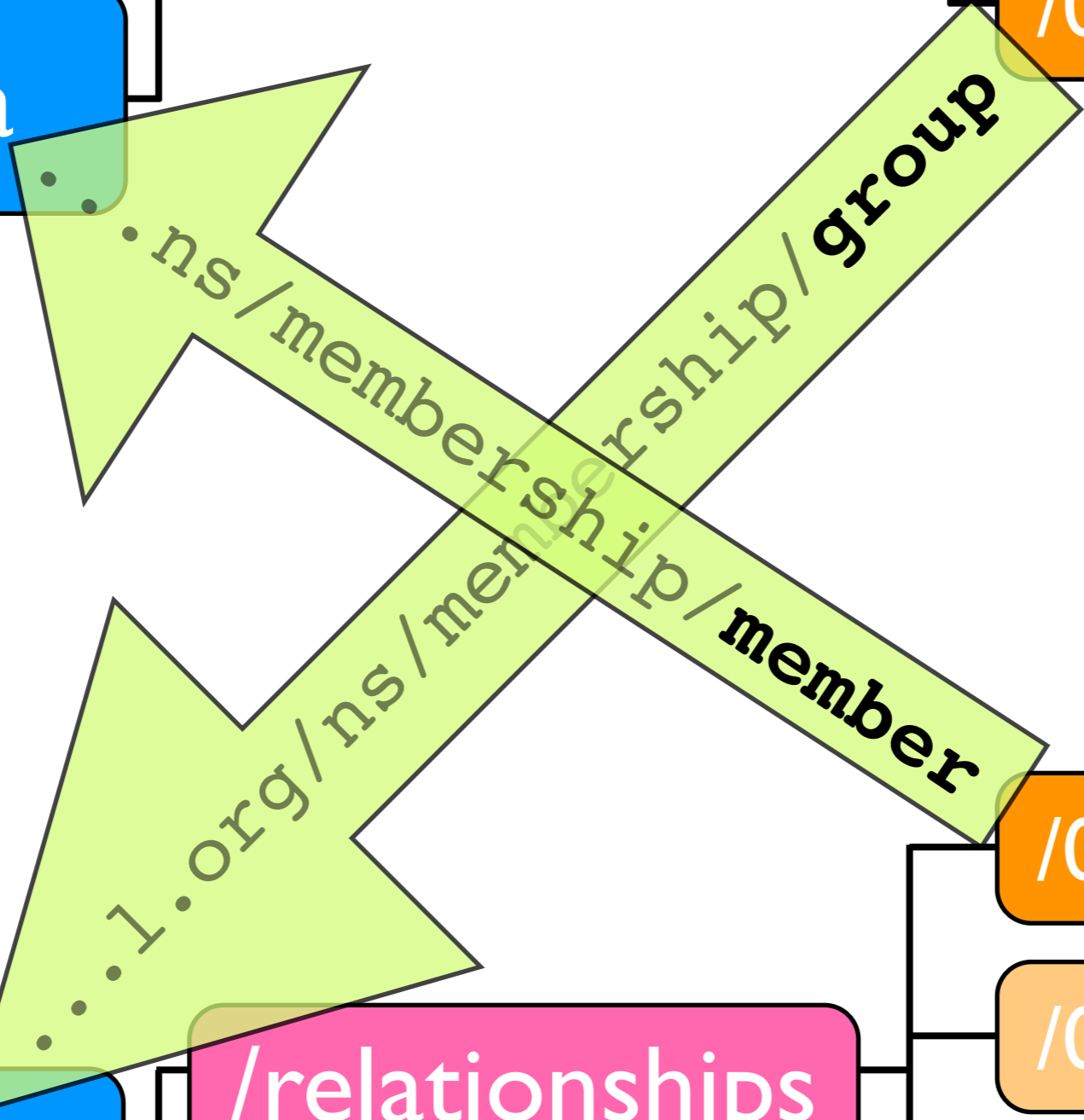
/relationships

/004

/001

/002

/003



<http://fhs.edu/persons/anna>

<http://schooltool.org/ns/membership/member>

<http://fhs.edu/groups/cs101>

Libraries in SchoolBell

- App
- Calendar
- Relationship

ns

/anna

/relationships

/001

ps

/cs101

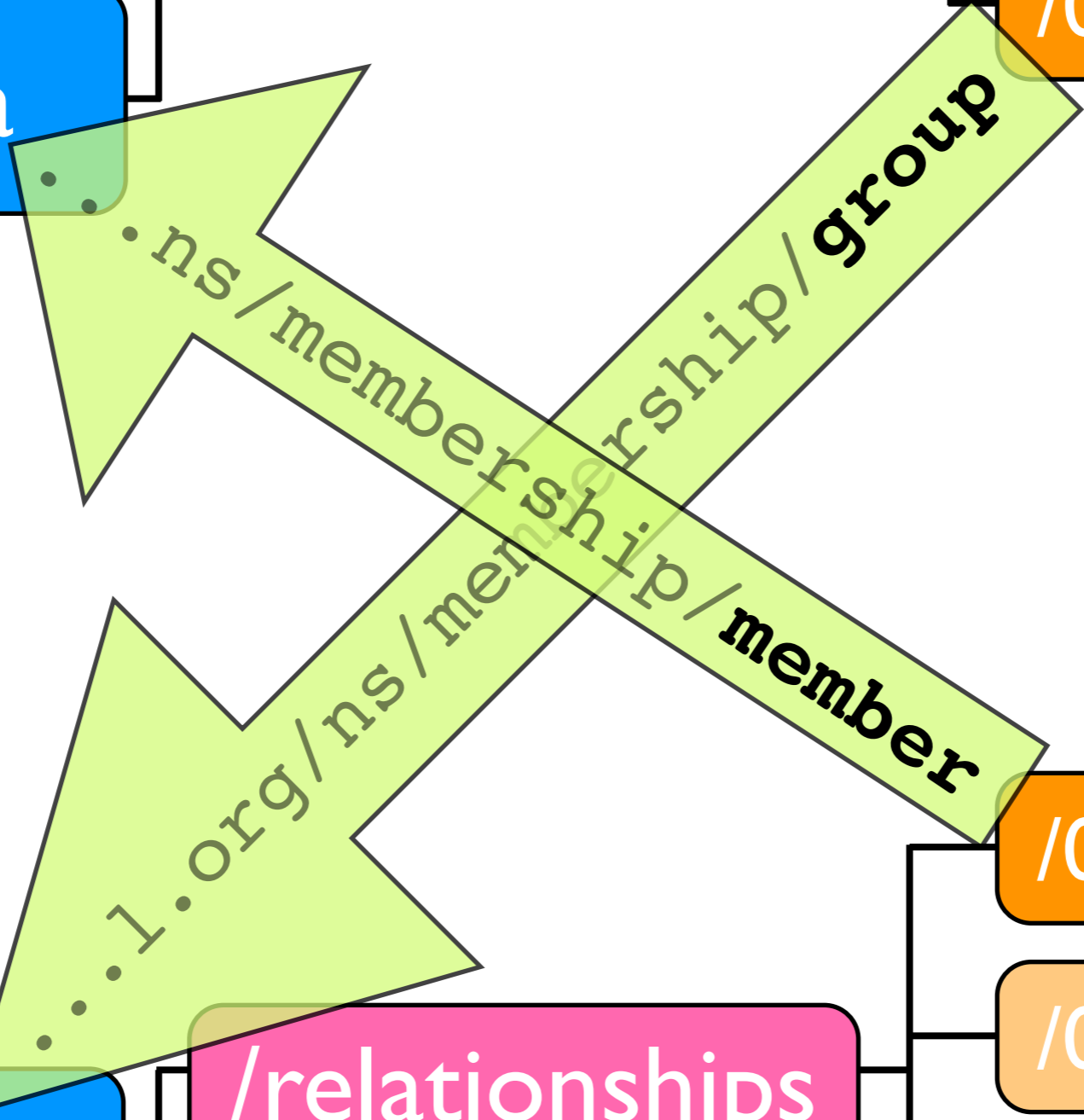
/relationships

/004

/001

/002

/003




```
class RelationshipProperty(object):  
    """Relationship property.
```

Instead of calling global functions and passing URIs around you can define a property on an object and use it to create and query relationships:

```
>>> class Person(object):  
...     groups = RelationshipProperty(URIMembership,  
...                                   URIMember,  
...                                   URIGroup)
```

```
"""
```



```
class RelationshipSchema(object):
```

```
    """Relationship schema.
```

```
        >>> a = Person('a')
```

```
        >>> b = Person('b')
```

```
        >>> Membership = RelationshipSchema(URIMembership,
```

```
        ...                               member=URIMember, group=URIGroup)
```

Then you can create and break relationships by writing

```
        >>> Membership(member=a, group=b)
```

```
        >>> Membership.unlink(member=a, group=b)
```

```
    """
```

Sipping the Zope 3 Kool-Aide (SchoolTool low-hanging-fruit)

- Atom and RSS feeds
- Email notification
- Grid view for conferences
- Scheduling multi-person meetings
- Notes for events
- CalDAV support

Adding an Atom View

app/browser/cal.py

```
class AtomCalendarView(WeeklyCalendarView):
    """View the upcoming week's events in Atom formatted xml."""

    def getCurrentWeek(self):
        """Return the remainder of this week
        as a list of CalendarDay objects."""
        return self.getWeek(date.today())

    def w3cdtf_datetime(self, dt):
        return dt.strftime("%Y-%m-%dT%H:%M:%SZ")

    def w3cdtf_datetime_now(self):
        return datetime.now().strftime("%Y-%m-%dT%H:%M:%SZ")
```

template/cal_atom.pt

```
<feed xmlns="http://purl.org/atom/ns#"
      version="0.3"
      xmlns:tal="http://xml.zope.org/namespaces/tal"
      xmlns:i18n="http://xml.zope.org/namespaces/i18n"
      tal:define="days view/getCurrentWeek">
[... ]
  <tal:loop repeat="day days">
    <entry tal:repeat="event day/events">
      <id tal:content="event/unique_id"></id>
      <title tal:content="event/title"></title>
      <link rel="alternate" type="text/html" href=""
            tal:attributes="href event/@@absolute_url" />
      <content mode="escaped" type="text/html" xml:base="" xml:
space="preserve"
            tal:content="event/description">
      </content>
      <issued tal:content="python:view.w3cdtf_datetime(event.dtstart)">
        2005-03-22T16:48:02Z
      </issued>
      <modified tal:content="python:view.w3cdtf_datetime(event.dtstart)">
        2005-03-22T16:48:02Z
      </modified>
    </entry>
  </tal:loop>
</feed>
```

browser/configure.zcml

```
<page name="atom.xml"  
      for="schoolbell.app.interfaces.ISchoolBellCalendar"  
      class=".cal.AtomCalendarView"  
      template="templates/cal_atom.pt"  
      permission="schoolbell.viewCalendar"  
      menu="zmi_views"  
      title="Atom View"  
/>
```

Atom Feed in Action

The screenshot shows the Liferea application window. The left sidebar contains a tree view of subscriptions, including folders for Flickr, Development (78), CIA, Politics, and Culture (46). The main pane displays a table of feed items. The selected item is 'CMFEditions Internals' from the 'Events for PyCon Track 1' feed. Below the table, the details for the selected item are shown, including the author 'Grégoire Weber' and the date '03/22/2005 12:00:00 PM'. A status bar at the bottom indicates that 'SchoolBell Manager' has been updated.

Date	Headline
03/22/2005 11:00:00 AM	State of Zope
03/22/2005 11:30:00 AM	SchoolBell: a Zope 3 Calendar Server
03/22/2005 12:00:00 PM	CMFEditions Internals
03/22/2005 01:30:00 PM	PyWebOff: Mapping the Python Web Applicati
03/22/2005 02:00:00 PM	WSGIKit: Utilizing WSGI as a platform for inter-
03/22/2005 02:30:00 PM	Developing Responsive GUI Applications Using
03/22/2005 03:30:00 PM	Design Patterns and Python OOP: Objects by D

Feed: [Events for PyCon Track 1](#)
Item: [CMFEditions Internals](#)

Grégoire Weber

Date: 03/22/2005 12:00:00 PM
author: PyCon Track 1 ([Website](#))

"SchoolBell Manager" updated...

See Also

<http://schooltool.org/schoolbell>

<irc://irc.freenode.net/schooltool>

<http://source.schooltool.org>