How to Edit XML with ElementTree

Editing XML with ElementTree is also easy. To make things a little more interesting though, we'll add another appointment block to the XML:

```xml
<?xml version="1.0" ?>
<zAppointments reminder="15">
    <appointment>
        <begin>1181251680</begin>
        <uid>040000008200E000</uid>
        <alarmTime>1181572063</alarmTime>
        <state></state>
        <location></location>
        <duration>1800</duration>
        <subject>Bring pizza home</subject>
    </appointment>
        <appointment>
        <begin>1181253977</begin>
        <uid>sdlkjlkadhdakhdfd</uid>
        <alarmTime>1181588888</alarmTime>
        <state>TX</state>
        <location>Dallas</location>
        <duration>1800</duration>
        <subject>Bring pizza home</subject>
    </appointment>
</zAppointments>
```

Now let's write some code to change each of the begin tag's values from seconds since the epoch to something a little more readable. We'll use Python's **time** module to facilitate this:

```python
import time
import xml.etree.cElementTree as ET

def editXML(filename):
    """
    Edit an example XML file
    """
    tree = ET.ElementTree(file=filename)
    root = tree.getroot()

    for begin_time in root.iter("begin"):
        begin_time.text = time.ctime(int(begin_time.text))
```

```
      tree = ET.ElementTree(root)
    with open("updated.xml", "w") as f:
        tree.write(f)

 if __name__ == "__main__":
     editXML("original_appt.xml")
```

Here we create an ElementTree object (tree) and we extract the **root** from it.
Then we use ElementTree's **iter()** method to find all the tags that are labeled
"begin". Note that the iter() method was added in Python 2.7. In our for loop,
we set each item's text property to a more human readable time format via
time.ctime(). You'll note that we had to convert the string to an integer when
passing it to ctime. The output should look something like the following:

```
<zAppointments reminder="15">
    <appointment>
        <begin>Thu Jun 07 16:28:00 2007</begin>
        <uid>040000008200E000</uid>
        <alarmTime>1181572063</alarmTime>
        <state />
        <location />
        <duration>1800</duration>
        <subject>Bring pizza home</subject>
    </appointment>
    <appointment>
        <begin>Thu Jun 07 17:06:17 2007</begin>
        <uid>sdlkjlkadhdakhdfd</uid>
        <alarmTime>1181588888</alarmTime>
        <state>TX</state>
        <location>Dallas</location>
        <duration>1800</duration>
        <subject>Bring pizza home</subject>
    </appointment>
</zAppointments>
```

You can also use ElementTree's **find()** or **findall()** methods to search for
specific tags in your XML. The find() method will just find the first instance
whereas the findall() will find all the tags with the specified label. These are
helpful for editing purposes or for parsing, which is our next topic!