

µWeb - Bug #524

uWeb Model comparison deeploading and dictionary assumption

2011-11-25 17:10 - Elmer de Loeff

Status:	Closed	Start date:	2011-11-25
Priority:	Normal	Due date:	
Assignee:	Elmer de Loeff	% Done:	100%
Category:	Model	Estimated time:	0.00 hour
Target version:		Spent time:	2.50 hours
Description			
<p>The uWeb Model automatically deeploads all items when comparing two records. This is a bug that was introduced when deeploading became available, and triggers because of the list-conversion that is done in <i>eq</i>. Triggering extra SQL queries at compare-time is very bad behaviour.</p> <p>The secondary is a more rare bug. In most cases, two dictionaries will have the exact same key order, but this is not at all guaranteed. Observe the following:</p> <pre>>>> d1 = {'directory': u'/root/some/path', 'package': u'foo', 'ID': 1, 'description': u'Empty test thingy'} >>> d2 = {'directory': u'/root/some/path', 'ID': 1, 'description': u'Empty test thingy', 'package': u'foo'} >>> d1 {'directory': u'/root/some/path', 'description': u'Empty test thingy', 'ID': 1, 'package': u'foo'} >>> d2 {'directory': u'/root/some/path', 'package': u'foo', 'ID': 1, 'description': u'Empty test thingy'} >>> d1 == d2 True</pre> <p>As can be seen, the dictionaries compare equal, but their internal order is different (This exact behaviour shows on Python2.6.6 but is likely prevalent). Substituting the basic dicts for a Record here makes the comparison break. This is because the Record class performs its equality check on the lists of values from both records. This is bad for two reasons:</p> <ul style="list-style-type: none">• Key names are not compared at all, leading to <i>false positives</i>;• Key (and thus value) ordering is not guaranteed, leading to <i>false negatives</i>.			

Associated revisions

Revision 3092:4c4c70fb030a - 2011-11-25 17:12 - Elmer de Loeff

Fixed bug in the uWeb model where Record comparisons needlessly deeploaded the entire tree of both records, and relied on an assumed dictionary order that is not guaranteed. This resolves #524.

Revision 105:c16717b72c55 - 2011-11-25 17:12 - Elmer de Loeff

Fixed bug in the uWeb model where Record comparisons needlessly deeploaded the entire tree of both records, and relied on an assumed dictionary order that is not guaranteed. This resolves #524.

History

#1 - 2011-11-25 18:20 - Elmer de Loeff

- Category set to Model
- Status changed from New to Resolved
- % Done changed from 0 to 70

This has been resolved in r3092.

Comparisons will no longer trigger deeploading, and differently ordered Records can be compared properly:

```
>>> r1 = Record(None, {'directory': u'/root/some/path', 'package': u'foo', 'description': u'Empty test thingy', 'ID': 1})
>>> r2 = Record(None, {'directory': u'/root/some/path', 'description': u'Empty test thingy', 'ID': 1, 'package': u'foo'})
>>> r1
Record({'directory': u'/root/some/path', 'package': u'foo', 'description': u'Empty test thingy', 'ID': 1})
>>> r2
Record({'directory': u'/root/some/path', 'description': u'Empty test thingy', 'ID': 1, 'package': u'foo'})
>>> r1 == r2
True
```

#2 - 2011-12-01 14:18 - Elmer de Looff

- Status changed from Resolved to Closed

- % Done changed from 70 to 100