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Subject: Sort a HASH

Posted by [JDS](#) on Wed, 22 Jun 2011 12:06:37 GMT

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How can you sort a HASH() in IDL?

```
IDL> h=hash(['a','c','d','b'],[7,1,5,8])
```

```
IDL> print,h
```

```
c:    1
```

```
a:    7
```

```
b:    8
```

```
d:    5
```

OK, they are randomly sorted. That's cool, it's a hash. I'll just sort on the hash key...

```
IDL> s=sort(h->keys())
```

```
IDL> print,s
```

```
0
```

Hmmm, it seems this isn't sorting correctly...

```
IDL> help, h->keys()
```

```
<Expression>  LIST <ID=3175 NELEMENTS=4>
```

Ahah, the return of Keys() is a list! (Why does SORT pretend it can sort a LIST?). We need an array. Continuing onwards...

```
IDL> s=sort((h->keys())->toarray())
```

```
IDL> print,(h.keys())[s]
```

```
a
```

```
b
```

```
c
```

```
d
```

Now we're getting there. Let's just index...

```
IDL> print,h[(h.keys())[s]]
```

```
c:    1
```

```
a:    7
```

```
b:    8
```

```
d:    5
```

Uhhh... what? Maybe it has something to do with indexing via a LIST. Let's make it an array first:

```
IDL> print,((h.keys()).toArray())[s]
```

```
a b c d
```

Should be perfect...

```
IDL> print,h[(((h.keys()).toArray())[s]]
```

```
c:    1
```

```
a:    7
```

```
b:    8
```

```
d:    5
```

But it's not!

Is there any way to index a hash and have the order of the keys be maintained, for example for this sorting problem? Loss of order is a well known feature of hash storage, but when you explicitly specify the order, it should be respected. Am I missing something?

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