| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/SortControl.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV CLASS**](http://docs.google.com/javax/naming/ldap/Rdn.html)   [**NEXT CLASS**](http://docs.google.com/javax/naming/ldap/SortKey.html) | [**FRAMES**](http://docs.google.com/index.html?javax/naming/ldap/SortControl.html)    [**NO FRAMES**](http://docs.google.com/SortControl.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | [CONSTR](#3dy6vkm) | [METHOD](#4d34og8) | DETAIL: [FIELD](#17dp8vu) | [CONSTR](#26in1rg) | METHOD |

## **javax.naming.ldap**

Class SortControl

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 [javax.naming.ldap.BasicControl](http://docs.google.com/javax/naming/ldap/BasicControl.html)  
 **javax.naming.ldap.SortControl**

**All Implemented Interfaces:** [Serializable](http://docs.google.com/java/io/Serializable.html), [Control](http://docs.google.com/javax/naming/ldap/Control.html)

public final class **SortControl**extends [BasicControl](http://docs.google.com/javax/naming/ldap/BasicControl.html)

Requests that the results of a search operation be sorted by the LDAP server before being returned. The sort criteria are specified using an ordered list of one or more sort keys, with associated sort parameters. Search results are sorted at the LDAP server according to the parameters supplied in the sort control and then returned to the requestor. If sorting is not supported at the server (and the sort control is marked as critical) then the search operation is not performed and an error is returned.

The following code sample shows how the class may be used:

// Open an LDAP association  
 LdapContext ctx = new InitialLdapContext();  
  
 // Activate sorting  
 String sortKey = "cn";  
 ctx.setRequestControls(new Control[]{   
 new SortControl(sortKey, Control.CRITICAL) });  
  
 // Perform a search  
 NamingEnumeration results =  
 ctx.search("", "(objectclass=\*)", new SearchControls());  
  
 // Iterate over search results  
 while (results != null && results.hasMore()) {  
 // Display an entry  
 SearchResult entry = (SearchResult)results.next();  
 System.out.println(entry.getName());  
 System.out.println(entry.getAttributes());  
  
 // Handle the entry's response controls (if any)  
 if (entry instanceof HasControls) {  
 // ((HasControls)entry).getControls();  
 }  
 }  
 // Examine the sort control response   
 Control[] controls = ctx.getResponseControls();  
 if (controls != null) {  
 for (int i = 0; i < controls.length; i++) {  
 if (controls[i] instanceof SortResponseControl) {  
 SortResponseControl src = (SortResponseControl)controls[i];  
 if (! src.isSorted()) {  
 throw src.getException();  
 }  
 } else {  
 // Handle other response controls (if any)  
 }  
 }  
 }  
  
 // Close the LDAP association  
 ctx.close();  
 ...

This class implements the LDAPv3 Request Control for server-side sorting as defined in [RFC 2891](http://www.ietf.org/rfc/rfc2891.txt). The control's value has the following ASN.1 definition:

SortKeyList ::= SEQUENCE OF SEQUENCE {  
 attributeType AttributeDescription,  
 orderingRule [0] MatchingRuleId OPTIONAL,  
 reverseOrder [1] BOOLEAN DEFAULT FALSE }

**Since:** 1.5 **See Also:**[SortKey](http://docs.google.com/javax/naming/ldap/SortKey.html), [SortResponseControl](http://docs.google.com/javax/naming/ldap/SortResponseControl.html), [Serialized Form](http://docs.google.com/serialized-form.html#javax.naming.ldap.SortControl)

| **Field Summary** | |
| --- | --- |
| static [String](http://docs.google.com/java/lang/String.html) | [**OID**](http://docs.google.com/javax/naming/ldap/SortControl.html#OID)            The server-side sort control's assigned object identifier is 1.2.840.113556.1.4.473. |

| **Fields inherited from class javax.naming.ldap.**[**BasicControl**](http://docs.google.com/javax/naming/ldap/BasicControl.html) |
| --- |
| [criticality](http://docs.google.com/javax/naming/ldap/BasicControl.html#criticality), [id](http://docs.google.com/javax/naming/ldap/BasicControl.html#id), [value](http://docs.google.com/javax/naming/ldap/BasicControl.html#value) |

| **Fields inherited from interface javax.naming.ldap.**[**Control**](http://docs.google.com/javax/naming/ldap/Control.html) |
| --- |
| [CRITICAL](http://docs.google.com/javax/naming/ldap/Control.html#CRITICAL), [NONCRITICAL](http://docs.google.com/javax/naming/ldap/Control.html#NONCRITICAL) |

| **Constructor Summary** | |
| --- | --- |
| [**SortControl**](http://docs.google.com/javax/naming/ldap/SortControl.html#SortControl(javax.naming.ldap.SortKey%5B%5D,%20boolean))([SortKey](http://docs.google.com/javax/naming/ldap/SortKey.html)[] sortBy, boolean criticality)            Constructs a control to sort on a list of sort keys. |
| [**SortControl**](http://docs.google.com/javax/naming/ldap/SortControl.html#SortControl(java.lang.String%5B%5D,%20boolean))([String](http://docs.google.com/java/lang/String.html)[] sortBy, boolean criticality)            Constructs a control to sort on a list of attributes in ascending order. |
| [**SortControl**](http://docs.google.com/javax/naming/ldap/SortControl.html#SortControl(java.lang.String,%20boolean))([String](http://docs.google.com/java/lang/String.html) sortBy, boolean criticality)            Constructs a control to sort on a single attribute in ascending order. |

| **Method Summary** | |
| --- | --- |

| **Methods inherited from class javax.naming.ldap.**[**BasicControl**](http://docs.google.com/javax/naming/ldap/BasicControl.html) |
| --- |
| [getEncodedValue](http://docs.google.com/javax/naming/ldap/BasicControl.html#getEncodedValue()), [getID](http://docs.google.com/javax/naming/ldap/BasicControl.html#getID()), [isCritical](http://docs.google.com/javax/naming/ldap/BasicControl.html#isCritical()) |

| **Methods inherited from class java.lang.**[**Object**](http://docs.google.com/java/lang/Object.html) |
| --- |
| [clone](http://docs.google.com/java/lang/Object.html#clone()), [equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [hashCode](http://docs.google.com/java/lang/Object.html#hashCode()), [notify](http://docs.google.com/java/lang/Object.html#notify()), [notifyAll](http://docs.google.com/java/lang/Object.html#notifyAll()), [toString](http://docs.google.com/java/lang/Object.html#toString()), [wait](http://docs.google.com/java/lang/Object.html#wait()), [wait](http://docs.google.com/java/lang/Object.html#wait(long)), [wait](http://docs.google.com/java/lang/Object.html#wait(long,%20int)) |

| **Field Detail** |
| --- |

### OID

public static final [String](http://docs.google.com/java/lang/String.html) **OID**

The server-side sort control's assigned object identifier is 1.2.840.113556.1.4.473.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#javax.naming.ldap.SortControl.OID)

| **Constructor Detail** |
| --- |

### SortControl

public **SortControl**([String](http://docs.google.com/java/lang/String.html) sortBy,  
 boolean criticality)  
 throws [IOException](http://docs.google.com/java/io/IOException.html)

Constructs a control to sort on a single attribute in ascending order. Sorting will be performed using the ordering matching rule defined for use with the specified attribute.

**Parameters:**sortBy - An attribute ID to sort by.criticality - If true then the server must honor the control and return the search results sorted as requested or refuse to perform the search. If false, then the server need not honor the control. **Throws:** [IOException](http://docs.google.com/java/io/IOException.html) - If an error was encountered while encoding the supplied arguments into a control.

### SortControl

public **SortControl**([String](http://docs.google.com/java/lang/String.html)[] sortBy,  
 boolean criticality)  
 throws [IOException](http://docs.google.com/java/io/IOException.html)

Constructs a control to sort on a list of attributes in ascending order. Sorting will be performed using the ordering matching rule defined for use with each of the specified attributes.

**Parameters:**sortBy - A non-null list of attribute IDs to sort by. The list is in order of highest to lowest sort key precedence.criticality - If true then the server must honor the control and return the search results sorted as requested or refuse to perform the search. If false, then the server need not honor the control. **Throws:** [IOException](http://docs.google.com/java/io/IOException.html) - If an error was encountered while encoding the supplied arguments into a control.

### SortControl

public **SortControl**([SortKey](http://docs.google.com/javax/naming/ldap/SortKey.html)[] sortBy,  
 boolean criticality)  
 throws [IOException](http://docs.google.com/java/io/IOException.html)

Constructs a control to sort on a list of sort keys. Each sort key specifies the sort order and ordering matching rule to use.

**Parameters:**sortBy - A non-null list of keys to sort by. The list is in order of highest to lowest sort key precedence.criticality - If true then the server must honor the control and return the search results sorted as requested or refuse to perform the search. If false, then the server need not honor the control. **Throws:** [IOException](http://docs.google.com/java/io/IOException.html) - If an error was encountered while encoding the supplied arguments into a control.

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/SortControl.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV CLASS**](http://docs.google.com/javax/naming/ldap/Rdn.html)   [**NEXT CLASS**](http://docs.google.com/javax/naming/ldap/SortKey.html) | [**FRAMES**](http://docs.google.com/index.html?javax/naming/ldap/SortControl.html)    [**NO FRAMES**](http://docs.google.com/SortControl.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
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[Submit a bug or feature](http://bugs.sun.com/services/bugreport/index.jsp)

For further API reference and developer documentation, see [Java SE Developer Documentation](http://docs.google.com/webnotes/devdocs-vs-specs.html). That documentation contains more detailed, developer-targeted descriptions, with conceptual overviews, definitions of terms, workarounds, and working code examples.

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