| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/X509CRLSelector.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/java/security/cert/X509CRLEntry.html)   [**NEXT CLASS**](http://docs.google.com/java/security/cert/X509Extension.html) | [**FRAMES**](http://docs.google.com/index.html?java/security/cert/X509CRLSelector.html)    [**NO FRAMES**](http://docs.google.com/X509CRLSelector.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [METHOD](#4d34og8) |

## **java.security.cert**

Class X509CRLSelector

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 **java.security.cert.X509CRLSelector**

**All Implemented Interfaces:** [Cloneable](http://docs.google.com/java/lang/Cloneable.html), [CRLSelector](http://docs.google.com/java/security/cert/CRLSelector.html)

public class **X509CRLSelector**extends [Object](http://docs.google.com/java/lang/Object.html)implements [CRLSelector](http://docs.google.com/java/security/cert/CRLSelector.html)

A CRLSelector that selects X509CRLs that match all specified criteria. This class is particularly useful when selecting CRLs from a CertStore to check revocation status of a particular certificate.

When first constructed, an X509CRLSelector has no criteria enabled and each of the get methods return a default value (null). Therefore, the [match](http://docs.google.com/java/security/cert/X509CRLSelector.html#match(java.security.cert.CRL)) method would return true for any X509CRL. Typically, several criteria are enabled (by calling [setIssuers](http://docs.google.com/java/security/cert/X509CRLSelector.html#setIssuers(java.util.Collection)) or [setDateAndTime](http://docs.google.com/java/security/cert/X509CRLSelector.html#setDateAndTime(java.util.Date)), for instance) and then the X509CRLSelector is passed to [CertStore.getCRLs](http://docs.google.com/java/security/cert/CertStore.html#getCRLs(java.security.cert.CRLSelector)) or some similar method.

Please refer to RFC 2459 for definitions of the X.509 CRL fields and extensions mentioned below.

**Concurrent Access**

Unless otherwise specified, the methods defined in this class are not thread-safe. Multiple threads that need to access a single object concurrently should synchronize amongst themselves and provide the necessary locking. Multiple threads each manipulating separate objects need not synchronize.

**Since:** 1.4 **See Also:**[CRLSelector](http://docs.google.com/java/security/cert/CRLSelector.html), [X509CRL](http://docs.google.com/java/security/cert/X509CRL.html)

| **Constructor Summary** | |
| --- | --- |
| [**X509CRLSelector**](http://docs.google.com/java/security/cert/X509CRLSelector.html#X509CRLSelector())()            Creates an X509CRLSelector. |

| **Method Summary** | |
| --- | --- |
| void | [**addIssuer**](http://docs.google.com/java/security/cert/X509CRLSelector.html#addIssuer(javax.security.auth.x500.X500Principal))([X500Principal](http://docs.google.com/javax/security/auth/x500/X500Principal.html) issuer)            Adds a name to the issuerNames criterion. |
| void | [**addIssuerName**](http://docs.google.com/java/security/cert/X509CRLSelector.html#addIssuerName(byte%5B%5D))(byte[] name)            Adds a name to the issuerNames criterion. |
| void | [**addIssuerName**](http://docs.google.com/java/security/cert/X509CRLSelector.html#addIssuerName(java.lang.String))([String](http://docs.google.com/java/lang/String.html) name)  **Denigrated**, use [addIssuer(X500Principal)](http://docs.google.com/java/security/cert/X509CRLSelector.html#addIssuer(javax.security.auth.x500.X500Principal)) or [addIssuerName(byte[])](http://docs.google.com/java/security/cert/X509CRLSelector.html#addIssuerName(byte%5B%5D)) instead. |
| [Object](http://docs.google.com/java/lang/Object.html) | [**clone**](http://docs.google.com/java/security/cert/X509CRLSelector.html#clone())()            Returns a copy of this object. |
| [X509Certificate](http://docs.google.com/java/security/cert/X509Certificate.html) | [**getCertificateChecking**](http://docs.google.com/java/security/cert/X509CRLSelector.html#getCertificateChecking())()            Returns the certificate being checked. |
| [Date](http://docs.google.com/java/util/Date.html) | [**getDateAndTime**](http://docs.google.com/java/security/cert/X509CRLSelector.html#getDateAndTime())()            Returns the dateAndTime criterion. |
| [Collection](http://docs.google.com/java/util/Collection.html)<[Object](http://docs.google.com/java/lang/Object.html)> | [**getIssuerNames**](http://docs.google.com/java/security/cert/X509CRLSelector.html#getIssuerNames())()            Returns a copy of the issuerNames criterion. |
| [Collection](http://docs.google.com/java/util/Collection.html)<[X500Principal](http://docs.google.com/javax/security/auth/x500/X500Principal.html)> | [**getIssuers**](http://docs.google.com/java/security/cert/X509CRLSelector.html#getIssuers())()            Returns the issuerNames criterion. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | [**getMaxCRL**](http://docs.google.com/java/security/cert/X509CRLSelector.html#getMaxCRL())()            Returns the maxCRLNumber criterion. |
| [BigInteger](http://docs.google.com/java/math/BigInteger.html) | [**getMinCRL**](http://docs.google.com/java/security/cert/X509CRLSelector.html#getMinCRL())()            Returns the minCRLNumber criterion. |
| boolean | [**match**](http://docs.google.com/java/security/cert/X509CRLSelector.html#match(java.security.cert.CRL))([CRL](http://docs.google.com/java/security/cert/CRL.html) crl)            Decides whether a CRL should be selected. |
| void | [**setCertificateChecking**](http://docs.google.com/java/security/cert/X509CRLSelector.html#setCertificateChecking(java.security.cert.X509Certificate))([X509Certificate](http://docs.google.com/java/security/cert/X509Certificate.html) cert)            Sets the certificate being checked. |
| void | [**setDateAndTime**](http://docs.google.com/java/security/cert/X509CRLSelector.html#setDateAndTime(java.util.Date))([Date](http://docs.google.com/java/util/Date.html) dateAndTime)            Sets the dateAndTime criterion. |
| void | [**setIssuerNames**](http://docs.google.com/java/security/cert/X509CRLSelector.html#setIssuerNames(java.util.Collection))([Collection](http://docs.google.com/java/util/Collection.html)<?> names)  **Note:** use [setIssuers(Collection)](http://docs.google.com/java/security/cert/X509CRLSelector.html#setIssuers(java.util.Collection)) instead or only specify the byte array form of distinguished names when using this method. |
| void | [**setIssuers**](http://docs.google.com/java/security/cert/X509CRLSelector.html#setIssuers(java.util.Collection))([Collection](http://docs.google.com/java/util/Collection.html)<[X500Principal](http://docs.google.com/javax/security/auth/x500/X500Principal.html)> issuers)            Sets the issuerNames criterion. |
| void | [**setMaxCRLNumber**](http://docs.google.com/java/security/cert/X509CRLSelector.html#setMaxCRLNumber(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) maxCRL)            Sets the maxCRLNumber criterion. |
| void | [**setMinCRLNumber**](http://docs.google.com/java/security/cert/X509CRLSelector.html#setMinCRLNumber(java.math.BigInteger))([BigInteger](http://docs.google.com/java/math/BigInteger.html) minCRL)            Sets the minCRLNumber criterion. |
| [String](http://docs.google.com/java/lang/String.html) | [**toString**](http://docs.google.com/java/security/cert/X509CRLSelector.html#toString())()            Returns a printable representation of the X509CRLSelector. |

| **Methods inherited from class java.lang.**[**Object**](http://docs.google.com/java/lang/Object.html) |
| --- |
| [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()), [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)) |

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

### X509CRLSelector

public **X509CRLSelector**()

Creates an X509CRLSelector. Initially, no criteria are set so any X509CRL will match.

| **Method Detail** |
| --- |

### setIssuers

public void **setIssuers**([Collection](http://docs.google.com/java/util/Collection.html)<[X500Principal](http://docs.google.com/javax/security/auth/x500/X500Principal.html)> issuers)

Sets the issuerNames criterion. The issuer distinguished name in the X509CRL must match at least one of the specified distinguished names. If null, any issuer distinguished name will do.

This method allows the caller to specify, with a single method call, the complete set of issuer names which X509CRLs may contain. The specified value replaces the previous value for the issuerNames criterion.

The names parameter (if not null) is a Collection of X500Principals.

Note that the names parameter can contain duplicate distinguished names, but they may be removed from the Collection of names returned by the [getIssuers](http://docs.google.com/java/security/cert/X509CRLSelector.html#getIssuers()) method.

Note that a copy is performed on the Collection to protect against subsequent modifications.

**Parameters:**issuers - a Collection of X500Principals (or null)**Since:** 1.5 **See Also:**[getIssuers()](http://docs.google.com/java/security/cert/X509CRLSelector.html#getIssuers())

### setIssuerNames

public void **setIssuerNames**([Collection](http://docs.google.com/java/util/Collection.html)<?> names)  
 throws [IOException](http://docs.google.com/java/io/IOException.html)

**Note:** use [setIssuers(Collection)](http://docs.google.com/java/security/cert/X509CRLSelector.html#setIssuers(java.util.Collection)) instead or only specify the byte array form of distinguished names when using this method. See [addIssuerName(String)](http://docs.google.com/java/security/cert/X509CRLSelector.html#addIssuerName(java.lang.String)) for more information.

Sets the issuerNames criterion. The issuer distinguished name in the X509CRL must match at least one of the specified distinguished names. If null, any issuer distinguished name will do.

This method allows the caller to specify, with a single method call, the complete set of issuer names which X509CRLs may contain. The specified value replaces the previous value for the issuerNames criterion.

The names parameter (if not null) is a Collection of names. Each name is a String or a byte array representing a distinguished name (in RFC 2253 or ASN.1 DER encoded form, respectively). If null is supplied as the value for this argument, no issuerNames check will be performed.

Note that the names parameter can contain duplicate distinguished names, but they may be removed from the Collection of names returned by the [getIssuerNames](http://docs.google.com/java/security/cert/X509CRLSelector.html#getIssuerNames()) method.

If a name is specified as a byte array, it should contain a single DER encoded distinguished name, as defined in X.501. The ASN.1 notation for this structure is as follows.

Name ::= CHOICE {  
 RDNSequence }  
  
 RDNSequence ::= SEQUENCE OF RelativeDistinguishedName  
  
 RelativeDistinguishedName ::=  
 SET SIZE (1 .. MAX) OF AttributeTypeAndValue  
  
 AttributeTypeAndValue ::= SEQUENCE {  
 type AttributeType,  
 value AttributeValue }  
  
 AttributeType ::= OBJECT IDENTIFIER  
  
 AttributeValue ::= ANY DEFINED BY AttributeType  
 ....  
 DirectoryString ::= CHOICE {  
 teletexString TeletexString (SIZE (1..MAX)),  
 printableString PrintableString (SIZE (1..MAX)),  
 universalString UniversalString (SIZE (1..MAX)),  
 utf8String UTF8String (SIZE (1.. MAX)),  
 bmpString BMPString (SIZE (1..MAX)) }

Note that a deep copy is performed on the Collection to protect against subsequent modifications.

**Parameters:**names - a Collection of names (or null) **Throws:** [IOException](http://docs.google.com/java/io/IOException.html) - if a parsing error occurs**See Also:**[getIssuerNames()](http://docs.google.com/java/security/cert/X509CRLSelector.html#getIssuerNames())

### addIssuer

public void **addIssuer**([X500Principal](http://docs.google.com/javax/security/auth/x500/X500Principal.html) issuer)

Adds a name to the issuerNames criterion. The issuer distinguished name in the X509CRL must match at least one of the specified distinguished names.

This method allows the caller to add a name to the set of issuer names which X509CRLs may contain. The specified name is added to any previous value for the issuerNames criterion. If the specified name is a duplicate, it may be ignored.

**Parameters:**issuer - the issuer as X500Principal**Since:** 1.5

### addIssuerName

public void **addIssuerName**([String](http://docs.google.com/java/lang/String.html) name)  
 throws [IOException](http://docs.google.com/java/io/IOException.html)

**Denigrated**, use [addIssuer(X500Principal)](http://docs.google.com/java/security/cert/X509CRLSelector.html#addIssuer(javax.security.auth.x500.X500Principal)) or [addIssuerName(byte[])](http://docs.google.com/java/security/cert/X509CRLSelector.html#addIssuerName(byte%5B%5D)) instead. This method should not be relied on as it can fail to match some CRLs because of a loss of encoding information in the RFC 2253 String form of some distinguished names.

Adds a name to the issuerNames criterion. The issuer distinguished name in the X509CRL must match at least one of the specified distinguished names.

This method allows the caller to add a name to the set of issuer names which X509CRLs may contain. The specified name is added to any previous value for the issuerNames criterion. If the specified name is a duplicate, it may be ignored.

**Parameters:**name - the name in RFC 2253 form **Throws:** [IOException](http://docs.google.com/java/io/IOException.html) - if a parsing error occurs

### addIssuerName

public void **addIssuerName**(byte[] name)  
 throws [IOException](http://docs.google.com/java/io/IOException.html)

Adds a name to the issuerNames criterion. The issuer distinguished name in the X509CRL must match at least one of the specified distinguished names.

This method allows the caller to add a name to the set of issuer names which X509CRLs may contain. The specified name is added to any previous value for the issuerNames criterion. If the specified name is a duplicate, it may be ignored. If a name is specified as a byte array, it should contain a single DER encoded distinguished name, as defined in X.501. The ASN.1 notation for this structure is as follows.

The name is provided as a byte array. This byte array should contain a single DER encoded distinguished name, as defined in X.501. The ASN.1 notation for this structure appears in the documentation for [setIssuerNames(Collection names)](http://docs.google.com/java/security/cert/X509CRLSelector.html#setIssuerNames(java.util.Collection)).

Note that the byte array supplied here is cloned to protect against subsequent modifications.

**Parameters:**name - a byte array containing the name in ASN.1 DER encoded form **Throws:** [IOException](http://docs.google.com/java/io/IOException.html) - if a parsing error occurs

### setMinCRLNumber

public void **setMinCRLNumber**([BigInteger](http://docs.google.com/java/math/BigInteger.html) minCRL)

Sets the minCRLNumber criterion. The X509CRL must have a CRL number extension whose value is greater than or equal to the specified value. If null, no minCRLNumber check will be done.

**Parameters:**minCRL - the minimum CRL number accepted (or null)

### setMaxCRLNumber

public void **setMaxCRLNumber**([BigInteger](http://docs.google.com/java/math/BigInteger.html) maxCRL)

Sets the maxCRLNumber criterion. The X509CRL must have a CRL number extension whose value is less than or equal to the specified value. If null, no maxCRLNumber check will be done.

**Parameters:**maxCRL - the maximum CRL number accepted (or null)

### setDateAndTime

public void **setDateAndTime**([Date](http://docs.google.com/java/util/Date.html) dateAndTime)

Sets the dateAndTime criterion. The specified date must be equal to or later than the value of the thisUpdate component of the X509CRL and earlier than the value of the nextUpdate component. There is no match if the X509CRL does not contain a nextUpdate component. If null, no dateAndTime check will be done.

Note that the Date supplied here is cloned to protect against subsequent modifications.

**Parameters:**dateAndTime - the Date to match against (or null)**See Also:**[getDateAndTime()](http://docs.google.com/java/security/cert/X509CRLSelector.html#getDateAndTime())

### setCertificateChecking

public void **setCertificateChecking**([X509Certificate](http://docs.google.com/java/security/cert/X509Certificate.html) cert)

Sets the certificate being checked. This is not a criterion. Rather, it is optional information that may help a CertStore find CRLs that would be relevant when checking revocation for the specified certificate. If null is specified, then no such optional information is provided.

**Parameters:**cert - the X509Certificate being checked (or null)**See Also:**[getCertificateChecking()](http://docs.google.com/java/security/cert/X509CRLSelector.html#getCertificateChecking())

### getIssuers

public [Collection](http://docs.google.com/java/util/Collection.html)<[X500Principal](http://docs.google.com/javax/security/auth/x500/X500Principal.html)> **getIssuers**()

Returns the issuerNames criterion. The issuer distinguished name in the X509CRL must match at least one of the specified distinguished names. If the value returned is null, any issuer distinguished name will do.

If the value returned is not null, it is a unmodifiable Collection of X500Principals.

**Returns:**an unmodifiable Collection of names (or null)**Since:** 1.5 **See Also:**[setIssuers(java.util.Collection)](http://docs.google.com/java/security/cert/X509CRLSelector.html#setIssuers(java.util.Collection))

### getIssuerNames

public [Collection](http://docs.google.com/java/util/Collection.html)<[Object](http://docs.google.com/java/lang/Object.html)> **getIssuerNames**()

Returns a copy of the issuerNames criterion. The issuer distinguished name in the X509CRL must match at least one of the specified distinguished names. If the value returned is null, any issuer distinguished name will do.

If the value returned is not null, it is a Collection of names. Each name is a String or a byte array representing a distinguished name (in RFC 2253 or ASN.1 DER encoded form, respectively). Note that the Collection returned may contain duplicate names.

If a name is specified as a byte array, it should contain a single DER encoded distinguished name, as defined in X.501. The ASN.1 notation for this structure is given in the documentation for [setIssuerNames(Collection names)](http://docs.google.com/java/security/cert/X509CRLSelector.html#setIssuerNames(java.util.Collection)).

Note that a deep copy is performed on the Collection to protect against subsequent modifications.

**Returns:**a Collection of names (or null)**See Also:**[setIssuerNames(java.util.Collection)](http://docs.google.com/java/security/cert/X509CRLSelector.html#setIssuerNames(java.util.Collection))

### getMinCRL

public [BigInteger](http://docs.google.com/java/math/BigInteger.html) **getMinCRL**()

Returns the minCRLNumber criterion. The X509CRL must have a CRL number extension whose value is greater than or equal to the specified value. If null, no minCRLNumber check will be done.

**Returns:**the minimum CRL number accepted (or null)

### getMaxCRL

public [BigInteger](http://docs.google.com/java/math/BigInteger.html) **getMaxCRL**()

Returns the maxCRLNumber criterion. The X509CRL must have a CRL number extension whose value is less than or equal to the specified value. If null, no maxCRLNumber check will be done.

**Returns:**the maximum CRL number accepted (or null)

### getDateAndTime

public [Date](http://docs.google.com/java/util/Date.html) **getDateAndTime**()

Returns the dateAndTime criterion. The specified date must be equal to or later than the value of the thisUpdate component of the X509CRL and earlier than the value of the nextUpdate component. There is no match if the X509CRL does not contain a nextUpdate component. If null, no dateAndTime check will be done.

Note that the Date returned is cloned to protect against subsequent modifications.

**Returns:**the Date to match against (or null)**See Also:**[setDateAndTime(java.util.Date)](http://docs.google.com/java/security/cert/X509CRLSelector.html#setDateAndTime(java.util.Date))

### getCertificateChecking

public [X509Certificate](http://docs.google.com/java/security/cert/X509Certificate.html) **getCertificateChecking**()

Returns the certificate being checked. This is not a criterion. Rather, it is optional information that may help a CertStore find CRLs that would be relevant when checking revocation for the specified certificate. If the value returned is null, then no such optional information is provided.

**Returns:**the certificate being checked (or null)**See Also:**[setCertificateChecking(java.security.cert.X509Certificate)](http://docs.google.com/java/security/cert/X509CRLSelector.html#setCertificateChecking(java.security.cert.X509Certificate))

### toString

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

Returns a printable representation of the X509CRLSelector.

**Overrides:**[toString](http://docs.google.com/java/lang/Object.html#toString()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**a String describing the contents of the X509CRLSelector.

### match

public boolean **match**([CRL](http://docs.google.com/java/security/cert/CRL.html) crl)

Decides whether a CRL should be selected.

**Specified by:**[match](http://docs.google.com/java/security/cert/CRLSelector.html#match(java.security.cert.CRL)) in interface [CRLSelector](http://docs.google.com/java/security/cert/CRLSelector.html) **Parameters:**crl - the CRL to be checked **Returns:**true if the CRL should be selected, false otherwise

### clone

public [Object](http://docs.google.com/java/lang/Object.html) **clone**()

Returns a copy of this object.

**Specified by:**[clone](http://docs.google.com/java/security/cert/CRLSelector.html#clone()) in interface [CRLSelector](http://docs.google.com/java/security/cert/CRLSelector.html)**Overrides:**[clone](http://docs.google.com/java/lang/Object.html#clone()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**the copy**See Also:**[Cloneable](http://docs.google.com/java/lang/Cloneable.html)

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/X509CRLSelector.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/java/security/cert/X509CRLEntry.html)   [**NEXT CLASS**](http://docs.google.com/java/security/cert/X509Extension.html) | [**FRAMES**](http://docs.google.com/index.html?java/security/cert/X509CRLSelector.html)    [**NO FRAMES**](http://docs.google.com/X509CRLSelector.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [METHOD](#4d34og8) |

[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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