10.4.4.2.4 Setfinder Query - Lockout Properties

In i2b2 a user who is able to run queries and is only allowed to see aggregated results is known as an obfuscated user. An example of an aggregated result is *Number of patients*; this analysis type will only return the a patient set size - no patient data is returned. The obfuscated user is limited to the number of times he / she can run the same query in a project within a specified time period. If the user exceeds the maximum number of times then their account will be locked and only an administrator can unlock it.

The setfinder query - lockout properties enable you to customize this feature to what will work best for you and your users. These properties are defined in the **CRC setfinder query lockout parameter** section of the **crc.properties** file.

Explanation of lockout properties

The following table provides a brief explanation of the different lockout property values and what they mean.

Property Name	Values
edu.harvard.i2b2.crc.lockout.setfinderquery.count	• The default value of 7 allows for 7 attempts before the user is locked out. • If you do not want to lockout your obfuscated users then set the count to -1. This will turn the feature off.
edu.harvard.i2b2.crc.lockout.setfinderquery.day	• This is the specified time period a user can run the same query before they are locked out. • The default value of 30 means an obfuscated user will be locked out if they run the same query within a 30 day time span.
edu.harvard.i2b2.crc.lockout.setfinderquery.zero.count	• If this property is set to > 0 then the set size of 0 will be counted when determining if a user is locked out. • The default value of -1 means a set size of 0 will not be counted.
edu.harvard.i2b2.crc.setfinderquery.obfuscation.count.sigma	• Defines the obfuscation standard deviation for the set size count (number of patients). • The range is -2 to 2.
edu.harvard.i2b2.crc.setfinderquery.obfuscation.breakdowncount.sigma	• Defines the obfuscation standard deviation for the breakdown counts (gender, race, age, etc). • The range is -4 to 4.
edu.harvard.i2b2.crc.setfinderquery.obfuscation.minimum.value	• If the count is within the minimum value then the obfuscated value returned will be 0. • The default value of 3 means if the real set size is 3 or less then a count of zero will be returned to the user.

Note

In the i2b2 Web Client, obfuscated results will appear in *Query Status* with a +/- 3 next to the count. This +/- 3 is defined in the Web Client code; The client never looks to the CRC properties to determine what to display. Therefore, changes made to the ***edu.harvard.i2b2.crc.setfinderquery.obfuscation.minimum.value*** property will have no effect on the +/- value that displays in the Web Client. This property is simply used by the CRC during the obfuscation process to determine the set size that will be returned to the clients as the obfuscated result.

Steps to set the CRC setfinder query lockout properties

1. In the **crc.properties** file scroll to the section called **CRC setfinder query lockout parameter**.
2. Edit the properties to reflect how you would like the lockout feature to work in your environment.

CRC setfinder query lockout parameter

```
edu.harvard.i2b2.crc.lockout.setfinderquery.count=7
edu.harvard.i2b2.crc.lockout.setfinderquery.day=30
edu.harvard.i2b2.crc.lockout.setfinderquery.zero.count=--1
edu.harvard.i2b2.crc.setfinderquery.obfuscation.count.sigma=1.323
edu.harvard.i2b2.crc.setfinderquery.obfuscation.breakdowncount.sigma=1.6
edu.harvard.i2b2.crc.setfinderquery.obfuscation.minimum.value=3
```

3. Save your changes. You can close the file if you do not want to edit any more of the optional properties defined in the next few sections.