

Introduction to the Market Scanner

This document is designed to assist you to understand the fields within the scan criteria parameters. Once you understand what these parameter fields mean and how they can be adjusted, you are on your way to creating your own scans.

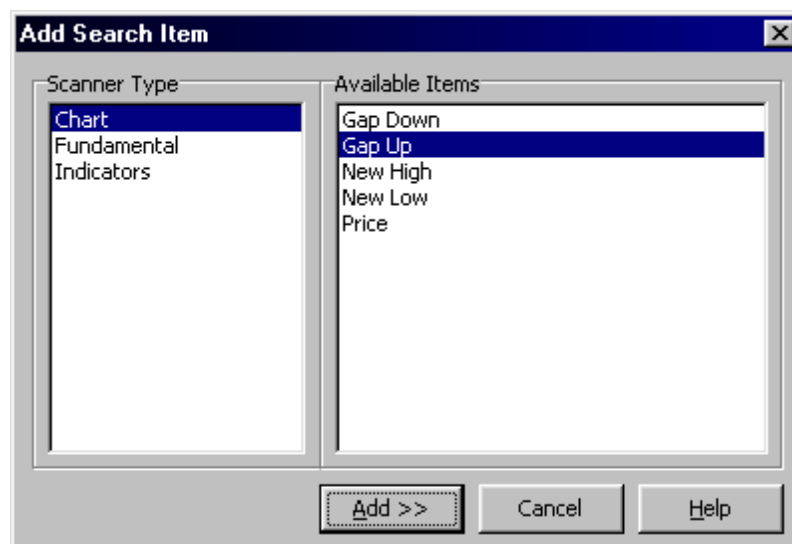
A single scan can contain any number of criteria. Each criterion needs to be set individually and is independent of other criteria. If you want criteria to be dependent on previous criteria, you need to scan first for securities meeting the first criteria, then save the results and run a scan on these results for the second criteria.

Another important point to keep in mind when using the scanner is that it is very exact in what it identifies. You might want to scan for all criteria with a volume of 100,000. However if you specify this, you will only receive the securities whose volume on that day is exactly 100,000. A security with a volume of 99,900 will not be included. Neither will securities with a volume of 100,100.

In this case you would need to determine a range around 100,000 that is acceptable for your specific analysis requirements – for example 5,000 on either side. Then you need to set one criterion that is **Greater Than or Equal** to 95,000. Then set another criterion that is **Less Than or Equal** to 105,000. This will identify all securities with a volume around 100,000.

Setting Scan Criteria

All of the available scan criteria are grouped into three Scanner Types, which appear when you select the **Add** button.

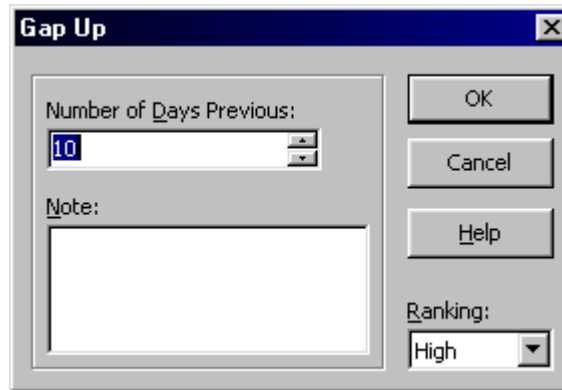


Selecting one of the Scanner Types will show a list of all Available Items for that Scanner Type. Then click **Add** to add criteria for this Item. Each Scanner Type has a different style of Parameters screen, which we will look at in detail below.

Chart

When you select an Item from the **Chart** Scanner Type and then click **Add**, the following dialog box will appear.

Note There is one exception to this, which is **Price**. The Price parameters are the same as the parameters for the **Indicators**.



There is only one field that needs to be entered for this dialog box, which is the **Number of Days Previous**. The figure that is entered here is the number of days' worth of data that is considered to determine if the criteria has been met. For the example shown above, the only securities that would be identified would be those who had a Gap Up within the past 10 days. If a Gap Up occurred 11 days ago, it would not be included in the scan results. With all Scan Criteria, you can select a ranking of High, Medium or Low. This is explained in detail under the heading **Ranking Criteria**.

Fundamental

You can create a scan that includes both technical and fundamental criteria. The Fundamental criteria in the Market Scanner use identical parameter screens as the Fundamental Scanner. For more information, see the article *Using the Fundamental Scanner*.

Indicators

Select any item from the **Indicators** list and the following screen will appear. This screen will also appear if **Price** is selected from the **Chart Scanner Type**.

Search Criteria Parameters

Enter Parameters For Price Field

First Value
Open of 0 Day(s) ago
 Modify Result: Increase by 0

Operator
Is Greater Than
Within the last 3 Days

Second Value
Numeric Value... of 0
 Modify Result: Increase by 0

Expression
Open of the current day
Is Greater Than 0

Ranking: High

OK
Cancel
Settings
Help

The **Search Criteria Parameters** dialog box is more complex than those shown previously and needs more detailed explanation. Essentially there are three sections which all need to be completed to create the search criteria. These three sections are strung together as follows:

(First Value) (Operator) (Second Value).

This information is then outlined in the **Expression**, which shows what the scan criteria is. This will change as you adjust the criteria, so you can always understand what the current settings will scan for.

More than with any of the other criteria settings, when creating a scan criteria based on Price or any of the indicators, it is important that you have a clear understanding of what you want to achieve before you begin to set the scan. In this way, you will be able to adjust the many options to achieve the desired criteria. We'll look at each section in detail, using Price as the example item.

First Value

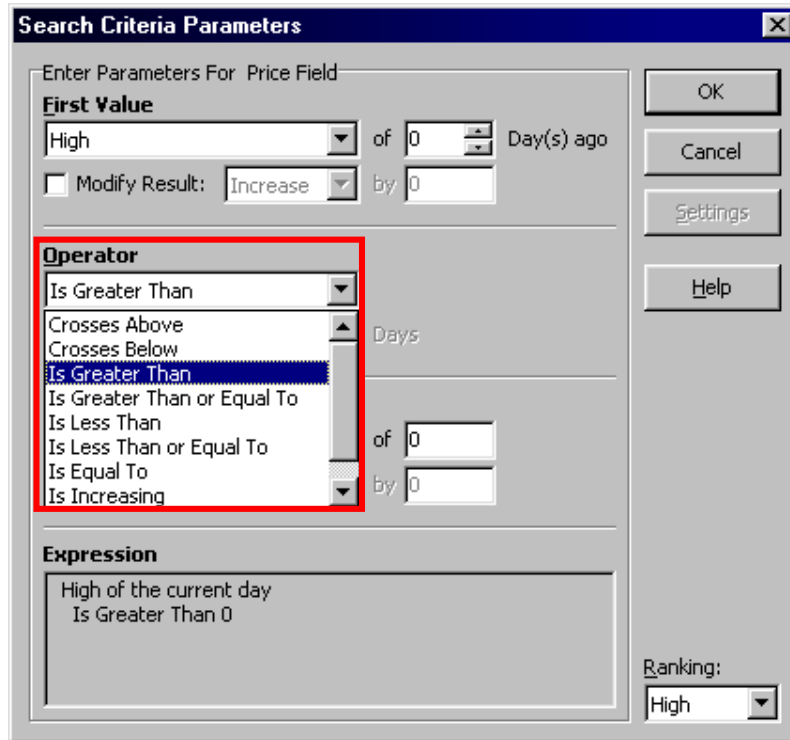
The **First Value** is the main item that you want to scan against. Click on the dropdown text box to view the available criteria options.

The screenshot shows the 'Search Criteria Parameters' dialog box. The 'First Value' dropdown menu is open, displaying a list of price field options: Open, High, Low, Close, Volume, Open Interest, Highest High, and Lowest Low. The 'Open' option is currently selected. To the right of the dropdown, there are two input fields: 'of 0 Day(s) ago' and 'by 0'. Below these, there is a 'Days' label. The 'Second Value' section has a dropdown set to 'Numeric Value...' and an 'of 0' field. A 'Modify Result' checkbox is present, which is unchecked, followed by an 'Increase' dropdown and a 'by 0' field. The 'Expression' text box contains the text: 'Open of the current day Is Greater Than 0'. On the right side of the dialog, there are buttons for 'OK', 'Cancel', 'Settings', and 'Help'. At the bottom right, there is a 'Ranking:' label and a dropdown set to 'High'.

You can see that for the **First Value** you can select any of the price options that are included in the data. Then, in the next text box, type in or scroll to the number of days previous you wish to use the data from. Leaving the setting at 0 will select the date of the last data download.

Operator

The **Operator** lets you specify how the first value interacts with the second value.



You can see there are a number of options within this dropdown menu. You need to select the option that describes the relationship between the **First Value** and the **Second Value**. These options can be grouped into three types.

Crosses Above, Crosses Below

Let's look at the example that the high of the current day crosses above the value of 5. This would not just identify the securities whose high is above 5. More specifically it will identify securities whose high of the current day has moved from being less than 5 yesterday to being greater than 5 today.

Is Greater Than, Is Greater Than or Equal To, Is Less Than, Is Less Than or Equal To, Is Equal To

This group of criteria are exactly what you would assume them to be. A criteria of **High is Greater Than 5** will identify all securities whose high is above (but not equal to) \$5. A criteria of **High is Equal to 5** will only identify securities whose highest price is exactly \$5.

Is Increasing, Is Decreasing

Selecting either Is Increasing or Is Decreasing will adjust the dialog box so that the second section of the Operator box is activated. You can now specify the period over which you want the First Value to be increasing or decreasing by adjusting the value in the box relating to **For the last <3> Days**.

The screenshot shows the 'Search Criteria Parameters' dialog box. The 'Operator' section is highlighted with a red box. It contains a dropdown menu with 'Is Increasing' selected and a spin box with the value '3' next to the text 'For the last ... Days'. The 'First Value' section has a dropdown menu with 'High' selected and a spin box with '0' next to 'Day(s) ago'. There is a checkbox for 'Modify Result:' which is unchecked, with a dropdown menu set to 'Increase' and a spin box with '0' next to 'by'. The 'Second Value' section has a dropdown menu with 'Numeric Value...' selected and a spin box with '0' next to 'of'. There is another checkbox for 'Modify Result:' which is unchecked, with a dropdown menu set to 'Increase' and a spin box with '0' next to 'by'. The 'Expression' field contains the text 'High of the current day' and 'Is Increasing for the last 3 days'. The 'Ranking:' dropdown menu is set to 'High'. On the right side of the dialog, there are buttons for 'OK', 'Cancel', 'Settings', and 'Help'.

In the example above, **Is Increasing** has been selected. This allows you to specify the number of days that the first operator, in this case the high of the current day, has been increasing. If you select Is Increasing, the software will look at the high of the current day and compare this to the high of three days ago. Any securities with a high of the current day greater than the high of three days ago will be included in the scan results.

Second Value

The Second Value section allows you to specify the criteria that the First Value is compared to.

The screenshot shows a dialog box titled "Search Criteria Parameters". It has several sections:

- First Value:** A dropdown menu set to "High", followed by "of 0" and "Day(s) ago". Below it is a checkbox for "Modify Result:" with "Increase" selected and "by 0".
- Operator:** A dropdown menu set to "Is Less Than or Equal To", followed by "Within the last 3" and "Days".
- Second Value:** This section is highlighted with a red box. It has a dropdown menu set to "Numeric Value...", followed by "of 1". Below it is a checkbox for "Modify Result:" with "Increase" selected and "by 0".
- Expression:** A text area containing "High of the current day" and "Is Less Than or Equal To 1".
- Ranking:** A dropdown menu set to "High".

 On the right side of the dialog, there are buttons for "OK", "Cancel", "Settings", and "Help".

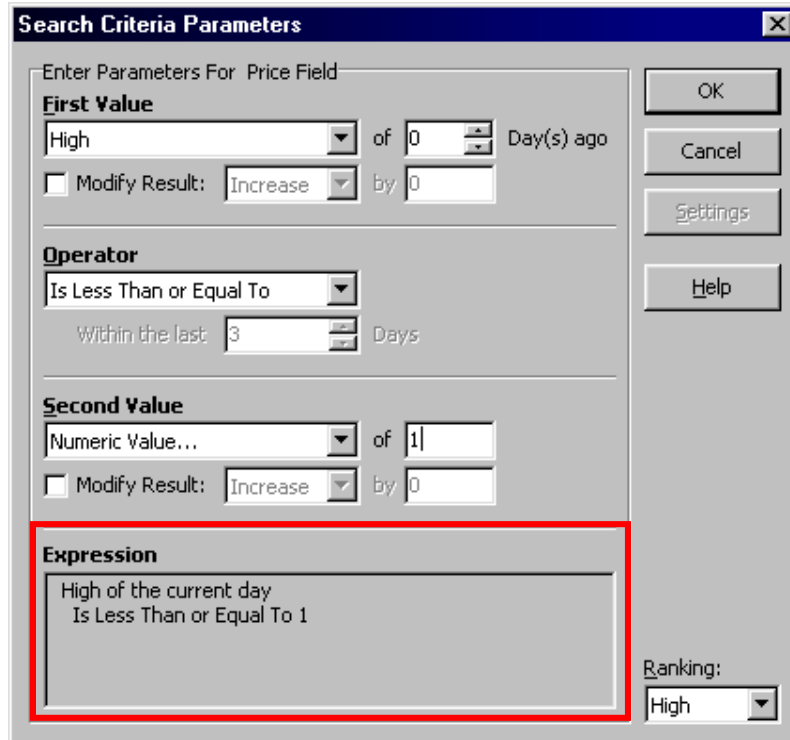
The options included in the Second Value are identical to those included in the First Value. This allows you to compare the open to the close of the current day, or the high of the current day compared to the high of 5 days ago.

There is also an additional option of **Numeric Value**. This allows you to specify a value to compare the First Value to. For example, you could specify a **High of the current day is Greater than a Numeric Value of 2**. This means that any securities whose high of the current day is more than two dollars will be included in the scan results.

Note When referring to price based values, the numeric value is based on dollars. A value of 2 will equal \$2.

Expression

The parameters that you have set appear in the Expression box at the bottom of the window. In the example below, you can see that the scan we have set will identify all of the securities whose high of the current day is less than or equal to \$1. In other words, it will filter out all the securities whose high of the day was above \$1.



Ranking Criteria

When you run a scan, you'll see that the results are each given a rank. You can then sort by this rank, to see which securities met the most criteria.

Each of the Parameters screens used to set criteria has a **Ranking** option, where you can choose to rank the criteria as **High, Medium or Low**. When you create a new criterion, this will default to High. If you do not adjust this parameter, then all criteria within the scan will be given equal weighting.

When all of the criteria are given the same Ranking, the software calculates how many of the scan criteria each security meets as a percentage. Scans that meet all criteria are ranked at 100%. If there are 5 criteria within the scan, each criterion will have a value of 20% (100% divided by 5 criteria). A scan that meets any four criteria will have a value of 80%, regardless of which criteria the security meets.

However, if you give one criteria a ranking of High and another a ranking of Low, then any securities which match the High ranking criteria will receive a higher percentage ranking than those meeting the Low ranking criteria. This means, when you sort by Rank, a security that meets any four criteria, including the High ranking

criteria will rank higher than a security that meets any four criteria, not including the High ranking criteria.

In the following screenshot, there are three criteria. The first criterion is ranked High, the second Medium and the third Low. You can see that securities that meet the first two criteria rank higher than those that meet the second and third criteria. Similarly, securities that only meet the first criteria receive a ranking of 42, while those that only meet the last criteria receive a ranking of 25.

1%		13		4		<input checked="" type="radio"/> Meets Some Criteria <input type="radio"/> Meets All Criteria	
Searched		Accepted		Rejected			
Row	Symbol	Price	Price	Volume	Rank		
1	AAP	7.12 > 2	7.12 <= 7.12	-	75		
2	AAI	64.538 > 2	64.538 <= 64.538	-	75		
3	ABG	2.41 > 2		True	67		
4	ABR	-	0.2 <= 0.2	True	58		
5	AAT	-	0.26 <= 0.275	True	58		
6	AAU	-	0.82 <= 0.85	True	58		
7	ACE	-	0.135 <= 0.145	True	58		
8	ABS	14.005 > 2	-	-	42		
9	ABT	-	0.016 <= 0.016	-	33		
10	AAV	-	0.11 <= 0.11	-	33		
11	ABN	-	0.145 <= 0.145	-	33		
12	ACI	-	-	True	25		
13	ABC	-	-	True	25		

A Scanning Example using Indicators

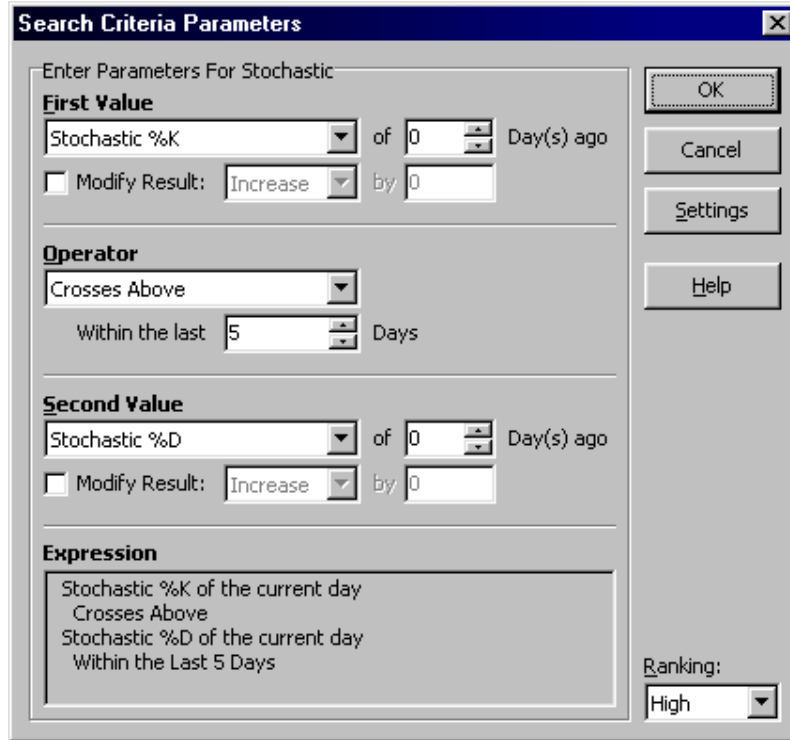
One of the most powerful features of the Scanner is the ability to scan on indicators by letting you create a scan that identifies when an indicator meets specific criteria that may be determined as a buy or sell signal. We'll work through an example, using the Stochastic indicator, that will help you understand what is meant by this.

As an example, we want to create a scan that identifies potential buy signals using the Stochastic. One interpretation of the Stochastic indicator is that a buy signal can be generated when the %K line, which has been below 20 crosses above the %D line and then crosses above the value of 20. You can see that when we refer to lines "crossing above" a value or indicator, we are already starting to use terms that the Scanner understands.

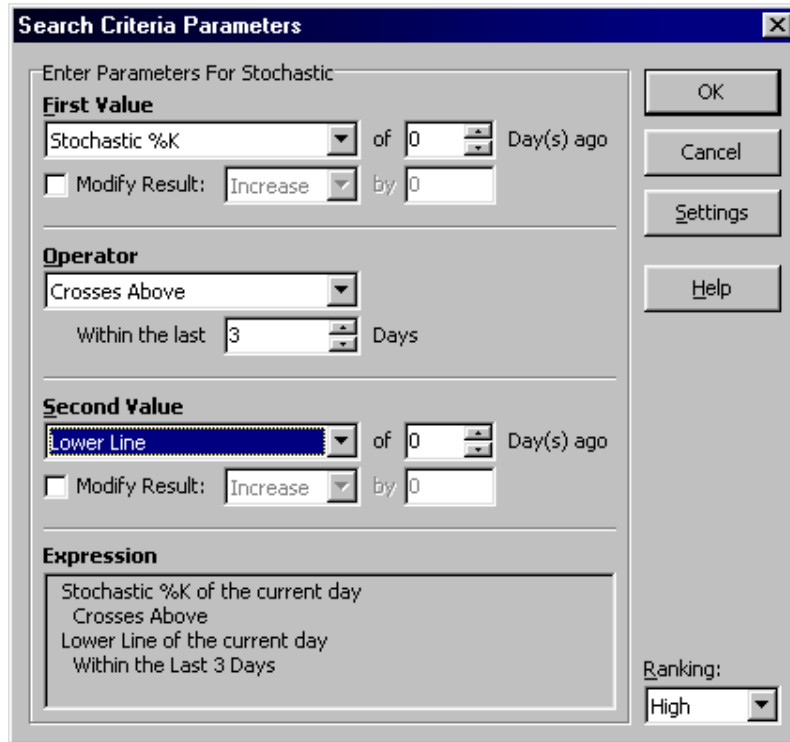
We need to use two criteria for this scan. Firstly, we want a criterion that identifies securities whose %K line crosses above the %D line. Secondly, we want a criterion that identifies securities whose %K line has crossed above the value of 20.

1. To begin creating our scan, we need to open and name a new scan. Then click on **Add**. Select **Indicators** from the Scanner Type and **Stochastic** from the Available Items. Then click **Add**.
2. The first criteria we'll set is for where the %K crosses above the %D. For the First Value, select **Stochastic %K** (it should be the default).

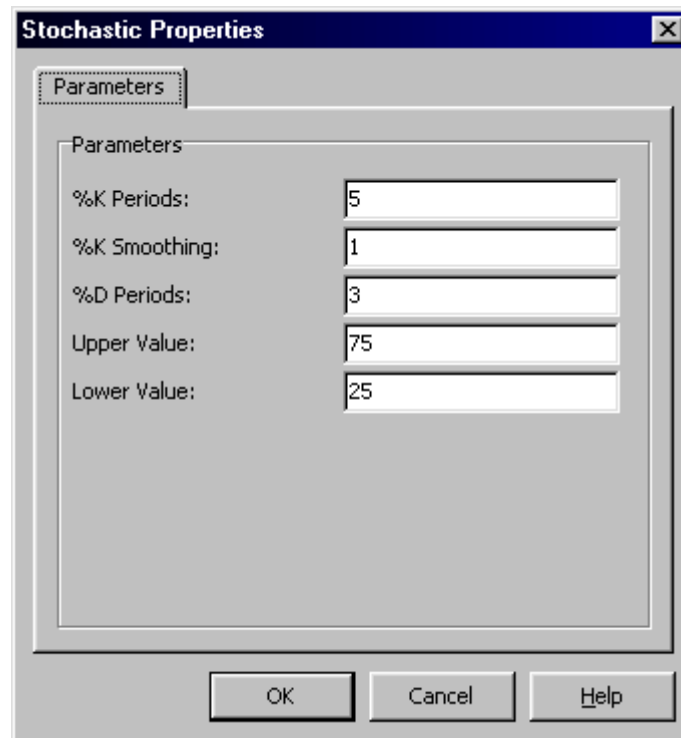
3. For the Operator, select **Crosses Above**. Change the period to read Within the Last **5** Days. This is because we want the %K to cross the %D before it crosses above the value of 20.
4. For the Second Value, select **Stochastic %D**.



5. It should appear as above. Then click **OK**. This will return you to the Scan Criteria pane and you'll see the criteria you set in the list.
6. For the second criteria, click **Add**, then select **Indicators** then **Stochastic** and then click **Add** again.
7. This time, we want to scan for when the %K crosses above the value of 20. Check the First Value is **Stochastic %K**.
8. The Operator needs to be set to **Crosses Above** again. However, this time we want to maintain the default setting of Within the Last **3** Days, so we identify securities where the %K crosses above the 20 value after it crosses above the %D.
9. From the Second Value, you can select **Lower Line** – this is the Lower Line that is within the chart feature and which as a default is set at 25.



10. You should now see the screen that is shown above. However, there is one more adjustment we want to make. The default for the lower line is 25, however we want this to be the value of 20. Click on the **Settings** button on the right side. This will launch the screen shown below.



11. From here, you can adjust the **Lower Value** to be 20. Then click **OK**.

12. Click **OK** on the **Search Criteria Parameters** screen to finish setting this criteria.
13. You'll need to identify the **Search Group** you wish to run this scan on. This may be one of your watch lists, a specific sector of the market or a set of other scan results.
14. Once you have generated your results, save the results and then open the **Chart** feature. Locate the results in the symbol tree and open the first indicator. Then apply a stochastic indicator. Scroll through the results set - you should see charts whose %K line has crossed above the %D line in the last five days and crossed above the lower line in the last 3 days.

Note The scanner results do not constitute a list of securities with a confirmed buy signal based on the stochastic. It is simply a list of securities that meet specific criteria of a stochastic. Further analysis needs to be undertaken and the advice of a licensed securities broker sought before you make any trading decisions based on the results of a scan such as that outlined above.