# **ELWAVE<sup>®</sup> for Bloomberg App Portal**

Tutorial

© 2013, 2015 Prognosis Software Development

# Contents

# Getting Started

1 Introduction	3
2 Quick start	4
3 Key Concepts	7

# Using the Chart panel

4 Charting	9
5 Analysis	
6 Summary	
7 Target Clusters	
8 Elliott Wave Theory Primer	
9 Wave Inspector (advanced usage)	

# Using the Monitor panel

10 Monitor panel	
11 Managing security lists	19
12 Managing monitor columns	21
13 Screening/filtering & ranking	23
14 Creating and editing filters	25
15 Alerts	

### **1** Introduction

Welcome to and thank you for trying ELWAVE<sup>®</sup>, the world's most advanced, fully automated Elliott Wave analysis solution. This tutorial has been designed to get you up to speed with ELWAVE as quickly as possible. It will only take a few minutes of your time.

If you want to view this tutorial online you can access it from the Help menu within the ELWAVE app.

#### Here is a brief overview of what ELWAVE has to offer:

- Automatic multiple time frame Elliott Wave analysis
- Clearly labeled chart
- Targets and trend channels placed automatically according to the wave count.
- **Summary** panel that provides a statistical overview of the analysis results, again covering multiple time frames, that informs you about detected trends, profit potential and more.

🕑 Summary											
Time frame	EASI	Trend	Wave	Target 1	Target 2	abs.%	Exit	Reward	Risk	R/R	
SuperCycle	na	up									
Cycle	positive	up	3 (100)	419.32	854.27	130	151.79	237.05	30.48	7.78	
Primary	neutral	up	2/b (53)	236.58	295.47	30	181.10	54.31	1.1700	46.42	
	neutral	down	3 (82)	181.72	169.48	0	213.82	0.5458	31.55	0.02	
Intermediate	negative	down	3 (81)	179.60	170.16	1	199.94	2.6722	17.67	0.15	

• **Target Clusters** that provide an overall multi time-frame picture of the expected trend and resistance areas



- **Wave Inspector** panel that allows inspection of the analysis results down to each individual wave and the rules that have been checked for that wave
- **Monitor** panel that provides *screening* and *ranking* based on Elliott Wave and other analysis results such as indicators.



- Common indicators such as SMA, EMA, RSI, MACD etc. which can be display on the chart or in the Monitor panel.
- Linking to Bloomberg Launchpad security groups to keep ELWAVE in sync with other Launchpad components such as Monitors

# 2 Quick start

ELWAVE consists of two main components: the Monitor panel covers the top halve and the Chart panel which takes up the bottom halve:



#### Working with the charting panel

If you have no need for the Monitor panel and simply want to work with a single chart to analyze proceed as follows:

• Enter or or search for a Ticker (see Charting chapter for more detailed instructions) by entering (part of) a security's name or ticker in the Ticker search entry field in the Charting panel:



• Select a time span that is relevant to your trading horizon: a short amount of history for short term projections, longer amounts of history for longer term projections (see Key concepts 2 and 3 in the **Key Concepts** chapter).

- Look for clear signals, that is for consensus among the various wave counts, by looking at the Summary and in particular the EASI and Trend columns. See the chapter on the Summary for more details. Tooltip are also available within ELWAVE for each column.
- Also be sure to look at the red/yellow Target Clusters (see . corresponding chapter) for an indication of the expected future price path according to the Elliott Wave patterns.

There are six key concepts regarding ELWAVE that will help you get the most out of this software. These key concepts will be explained on the next few pages.

TESTPRTFOLIO 2 +

<

Filter

(0 active)

✓

~

### Working with the Monitor panel

The first time you run ELWAVE the Monitor panel will look something like this:

Accepted Status Ticker

OK

OK

OK

OK

A tab labeled Sample list is added automatically along with a tab for each portfolio that
you have defined in Bloomberg. Clicking a row will automatically open the
corresponding chart in the charting panel.

Daily/5Y Show 0 non-matching entries 🔌 📝 Enable

Ticker search.

Last EASI

lst

ibm us equity 161.86 neutral neutral neutral 🐴

msft us equity 47.69 neutral positive positive 🕇

goog us equity 526.98 negative negative negative 👃

intc us equity 37.20 positive positive f

OK yhoo us equity 49.62 positive positive 🛉

EASI

2nd

EASI

3rd

As explained in the previous section on the Charting panel, select a time span that is relevant to your trading horizon (Key concepts 2 and 3 in the Key Concepts chapter) and look for clear signals, that is for consensus among the various wave counts, by looking at the Summary and in particular the EASI and Trend columns.

Click the E button or right-click on a column header and select one of the menu entries to add or remove various column types:

- Regular data fields such as Bid, Ask, Last
- Indicators
- Elliott Wave Summary fields such as EASI, Trend, Reward% etc
- **Filters**

😴 ELWAVE <u>Chart View H</u>elp

Sample list × PORTFOLIO S&P

New filter name

Active Name Matches Show

3 positive (2)

5





Trend Trend Trend Reward % 🔲 3 positive

47.18

-18.87

11.35

21.41

138.94

x

×

1st 2nd 3rd 1st

÷

t

ŧ

t

4

t

ŧ

t

You can populate the rows by entering symbols manually by entering a symbol in the Ticker column or by copy & paste (right-click on any cell in the Ticker column and select Paste) or drag & drop from an Excel sheet or Bloomberg monitor.

Clicking a column header will sort your items. Filters can also be added (as a column), activated, created and edited using the Filters panel on the left. You can also enable simple per-column filtering by clicking the subtraction to show the **Filter Row** where you can enter simply filter conditions such as >5 or >30 and <100.

For complete instructions on using the Monitor Panel click one of the topics listed below Using the Monitor panel on the left.

There are **six key concepts** regarding ELWAVE that will help you get the most out of this software. These key concepts will be explained on the next few pages.

## **3 Key Concepts**

#### The following six key concepts are essential for a proper understanding of ELWAVE:



# ELWAVE keeps track of *all* valid wave counts instead of trying to find just the 'best' or 'preferred' wave count

This does not mean that *you* have to deal with all these alternative wave counts. Instead, you will mainly use the Summary and the Target Clusters to level of consensus between these various counts and the resulting overall trend and resistance levels where a reversal might take place. If you want it *is* possible to view the alternative wave counts.



# Analysis results do not in principle depend on the resolution (periodicity) of the data that you analyze

This is how it should be, since the actual shapes of Elliott Wave patterns (such

as the ratio between waves) that have formed do not change with resolution. You might compare this to taking a photograph of a forest with two digital cameras, one with a 5 megapixel sensor and the other with a 15 megapixel sensor. The trees and branches will look and have the same properties relative to one another, ie. a particular branch might be twice the size of another one and this will be the case on both cameras. The only difference is when you



zoom in to small details which at some point the 5 megapixel sensor simply does not capture, however that still doesn't change the relative sizes of those branches that are large enough to be visible on both photographs.



# The amount of history that is loaded determines what wave degrees (time frames) the software can and will analyze

If for example you load just a few days of data the analysis will be concerned with those waved degrees whose waves actually fit within that amount of time. Any larger wave degrees will not be visible.

# It is therefore essential that you load an amount of history that yields results that are relevant to your trading horizon.

For position trading you'll want to analyze several months to years of data. For intraday trading it will be something between 1 day and several weeks of data (remember that ELWAVE does a multi-time frame analysis so analyzing a week or more of data can yield results that are relevant to intraday trading in the lower wave degrees). Exactly how much data you need will require some experimentation on your part.



# Charts are always analyzed and displayed using a logarithmic scale on the price axis

This is the only scaling that makes sense from an Elliott Wave point of view because an wave that increases from 50 to 100 points (100%) should be considered to be of the same size (wave degree) as one that increases (typically many years later) from 500 to 1000 points. By using a logarithmic scale this correspondency can also be seen visually.

If the vertical range is small the resulting chart will look almost identical to one using a linear scale. It is only long-term charts with large vertical ranges where the difference between linear and logarithmic becomes significant.



# Horizontal positioning of targets is not indicative of the expected time that the target will be reached

The red/yellow **Target Clusters** *do* combine price and time in a manner that is consistent and does not for instance depend on the vertical scaling of the chart.



# The *Summary* and *Target Clusters* are based on *all* valid wave counts

The wave count that is shown on the chart at any given time is only one of many wave counts and whereas the targets shown in the chart are connected to that particular wave count, the Summary and the red/yellow Target Clusters derive from all wave counts.

In the following sections we will take you through the software from loading and navigating a chart to interpreting the analysis results.



# 4 Charting

To load a chart, first select the time span and resolution. The most convenient way to do is by clicking the Resolution/Period  $\checkmark$  button (which will look something like 15 Min/30D  $\checkmark$  if a selection has already been made).

Now enter (part of) a security's name or symbol in the symbol entry field. A box showing all matching symbols will show up as soon as you start typing:

micro	¥ R	Resolution/Period 🔻 🖌 🖌							
Symbol browser			X						
			~						
MICRO 2009-1 A	Mtge	Micro-E Finance Srl							
MSFT US	Equity	Microsoft Corp (U.S.)							
AMD US	Equity	dvanced Micro Devices Inc (U.S.)							
MU US	Equity	Micron Technology Inc (U.S.)							
AMD	Corp	Advanced Micro Devices Inc (Multiple Matches)							
RFMD US	Equity	RF Micro Devices Inc (U.S.)							
IM US	Equity	Ingram Micro Inc (U.S.)							
AMCC US	Equity	Applied Micro Circuits Corp (U.S.)							

You can use the arrow keys on your keyboard or the mouse to select the security you want. If you use the arrow keys, hit Enter (<GO>) to load the chart.

micro	~ R	Resolution/Period 🔻 🗸 🖌			
Symbol browser			>	<	
			~		
MICRO 2009-1 A	Mtge	Micro-E Finance Srl			()
MSFT US	Equity	Microsoft Corp (U.S.)			<b>†</b>
AMD US	Equity	Advanced Micro Devices Inc (U.S.)			
MU US	Equity	Micron Technology Inc (U.S.)			
AMD	Corp	Advanced Micro Devices Inc (Multiple Matches)			← ↓
RFMD US	Equity	RF Micro Devices Inc (U.S.)			
IM US	Equity	Ingram Micro Inc (U.S.)			
AMCC US	Equity	Applied Micro Circuits Corp (U.S.)			
MICRO IN	Equity	Micromax Informatics Ltd (India)			
MSFT	Corp	Microsoft Corp (Multiple Matches)			
MICRO	Mtge	Micro-E Finance Srl			
MCHP US	Equity	Microchip Technology Inc (U.S.)			
UMC US	Equity	United Microelectronics Corp (U.S.)			
MCRO LN	Equity	Micro Focus International PLC (London)			
MU	Corp	Micron Technology Inc (Multiple Matches)			
MCRS US	Equity	MICROS Systems Inc (U.S.)			
MSFT UW	Equity	Microsoft Corp (NASDAQ GS)	~		

The chart will now be loaded and analyzed by ELWAVE. Once the chart has been loaded, there are several things you can do using the mouse:

Zoom in on a particular area
 Right-click (hold) on the chart → drag → release

#### • Zoom out

Right-click and select Zoom Out or Zoom Reset from the popup menu

- To zoom in or out you can also use the **mouse wheel** or you can can **click & drag on the x-axis**
- Scroll
   Left-click (hold) → drag → release
   or you can use the scrollbar at the bottom of the chart

Vertical scaling is always done automatically.

Please note that you can only scroll or zoom back as far as the selected time span or start date allows. To see more history select a different time span or start date in the toolbar at the top. This will also update the analysis to reflect the selected time span.

#### Regular non-Elliott Wave Studies

To reduce the amount of switching required between ELWAVE and other charting windows a number of common technical Studies (or indicators) are available in ELWAVE.

To add a Study click on the **Studies** panel expander located in the top-right of the charting panel.







In this panel you can add/remove and adjust Studies such as **SMA**, **EMA**, **RSI**, **MACD** etc. Let us know if your favorite Study is missing!

You can also add Studies as columns or filters in the Monitor panel (see *Using the Monitor panel*, sections *Columns* and *Creating Filters*).

### Integration with Bloomberg Launchpad: Linking to Groups

For an efficient workflow, you can link ELWAVE to a Launchpad (Security) Group so that it switches securities as you select them in other Launchpad components (such as a Monitor) and vice versa.

To do this, click the button to the right of the *Ticker search* entry field in the Chart panel's toolbar and select the Security Group to link to as shown below.



If no Security Groups are shown but only *Unlink*, you have not yet defined a (Security) Group in Bloomberg. You can create one from a Launchpad Monitor by clicking its button at the top. This will bring up the Group Manager. You can also open the Group Manager from the Launchpad control window:

	ad - Semi	nar view	Options	s ≳ Q.	_ × _
Views Pages	Setting	µs To	ols	Help	
group m		Browse		Page 1	+
Components Group Manager					
Show more matche	es				

The Group Manager allows you to define a Group which you can link to from ELWAVE and most Launchpad Components.

To link a Launchpad Monitor to a Group, click the **Options** button to display the menu bar and select **Link To | Component Groups...**.

# 5 Analysis

Once a chart has been loaded ELWAVE will automatically analyze it and create the following:

#### • Elliott Wave Wave counts

ELWAVE keeps track of all wave counts, one of which will be shown in the chart (you can select others from the toolbar)

• Trend channels

These are drawn automatically based on the wave count, for instance from a wave II to wave IV with the parallel line drawing from wave III

• Targets (specific to each wave count alternative)

For each Fibonacci Target a tooltip will appear that explains how the target was calculated if you move your mouse on top

Wave

3 (100)

2/b (53)

3 (82)

3 (81)



#### A Summary showing overall trends and average targets:

Trend

up

up

up

down

down

#### • Target Clusters

Intermediate

💌 Summary

Time frame

SuperCycle

Cycle

Primary

EASI

positive

neutral

neutral

negative

na

These are Fibonacci based projections showing the expected future price path (in yellow) and resistance or target areas (in red).

419.32

236.58

181.72

179.60

Target 1 Target 2 abs.%

854.27

295.47

169.48

170.16

130

30

0

1

199.94

2.6722

17.67

0.15

We recommend that you focus, at least initially, on the **Summary** and **Target Clusters** because both of these are based on *all* valid wave counts and will show you if there is consensus with regard to the trend or if there are conflicting views. Both will be explained on the next few pages.

# 6 Summary

In this section we will take a closer look at the Summary which might look something like this:

🕑 Summary											
Time frame	EASI	Trend	Wave	Target 1	Target 2	Reward %	Exit	Reward	Risk	R/R	
SuperCycle	na	up									
Cycle	positive	up	3 (100)	419.32	854.27	130	151.79	237.05	30.48	7.78	
Primary	neutral	up	2/b (53)	236.58	295.47	30	181.10	54.31	1.1700	46.42	
	neutral	down	3 (82)	181.72	169.48	0	213.82	0.5458	31.55	0.02	
Intermediate	negative	down	3 (81)	179.60	170.16	1	199.94	2.6722	17.67	0.15	

Tooltips will be shown in ELWAVE with a brief explanation of the contents and use of each column as you place your mouse over each entry. Here we will go through the various items shown in a little more detail.

You may remember Key concept 6 from the Concepts section but it's important enough to repeat it here:



#### The Summary and Target Clusters are based on all valid wave counts

The wave count that is shown on the chart at any given time is only one of many wave counts and whereas the targets shown in the chart are connected

to that particular wave count, the Summary and the red/yellow Target Clusters derive from all wave counts.

We would also like to point out that internally the Summary is based on the *accumulation* of *active signals* that are defined for the various patterns and stages of each pattern. An example of one such signal is 'wave 3 exceeds wave 1' which is treated internally as *a confirmation signal* for wave 3. There are many more such signals and the Summary is derived from the collection of all such *active signals*.

All of this means that the readings from the Summary do *not* necessarily correspond to the currently selected wave count. For instance, the **Wave** column in the Summary might indicate that the most prevalent wave at the Cycle wave degree is a wave 3 (based upon the various active *confirmation signals*) while the currently visible wave count might be in a wave 4 or 5. Given what has been said above you will understand that this is not a contradiction but rather that this wave count is just one of many that has contributed to the contents of the Summary and as such the Summary takes priority over any individual wave counts.

We will now go through the various columns shown in the Summary and explain what they mean and what their purpose is.

• The **Time frame** column of each row indicates what wave degree that row refers to with each wave degree corresponding to a certain margnitude or size (amount of price movement).

The size of a wave degree is measured as the average *percentual growth* of its trending waves (I, III and V in the case of a trending pattern, A and C in the case of a corrective pattern). There is no direct correlation between wave degrees and actual time but indirectly they are tied together depending on the volatility of the symbol. The tooltip that will appear

for each wave degree as you hover on top of it will display the average size of the trending waves for that wave degree.

- The EASI column contains the reading for our proprietary Elliott Accumulated Signals
   Indicator. If this read positive it means that all alternative wave counts are in agreement
   with regard to the trend being up (for this wave degree). If it reads negative all wave counts
   indicate a down trend (again for this wave degree) If it reads neutral that means that there
   are wave counts suggesting an uptrend as well others suggesting a down trend. The idea is
   to look for consensus (ie. EASI is positive or negative rather than neutral) and
   especially for consensus over multiple, say two or three, consecutive time frames.
- The **Trend** column shows the detected trend or trends for that wave degree. If only one trend is detected (up or down) the EASI column is likely to read positive or negative.
- The **Wave** column indicates the most prevalent current wave among the various alternative wave counts. The number between brackets indicates the percentage wise occurence of the listed wave and could more or less be interpreted as a reliability indicator for the current wave indication.

If you want to trade the trend you could try something like looking for a 'wave 3 in wave 3 in a wave 3', ie. the EASI is positive (or negative) on three consecutive wave counts and the Wave column shows that the most likely current wave is a wave 3 on those same wave degrees.

he Target 1 column shows the *average* target for the next wave, ie. the current wave that is still in progress. This is based on smaller Fibonacci ratios (roughly up to 1.6). Like everything else in the Summary this average is based on *all* valid wave counts. This target is indicated in the chart by a closed diamond shape.

The **Target 2** column is an average target based on larger Fibonacci ratios (2.6 and above) which comes into consideration if Target 1 is exceeded. This target is indicated in the chart by an open diamond shape.

- The **Reward %** column is essentially the same as Target 1 but expressed as a percentage of gain relative to the *current* price so it will update continuously as real-time data comes in.
- The **Exit** column indicates at what price level the Elliott Wave analysis may turn out to have been invalid. Instead of relying upon this for your exit strategy you might want to imploy additional strategies to protect your investment and minimize your risk.
- The **Reward** column shows the difference between **Target 1** and the current price so it is similar to abs.% except that i displays the possible gain as an absolute difference rather than a percentage. Just like abs.% it will update continuously as real-time data comes in.
- The **Risk** column simply shows the difference between the current price and the **Exit** level.
- Finally, the **R/R** column shows the Riskreward ratio, ie. **Reward/Risk**. Depending on your trading strategy you could consider imposing certain minimum values on this readout prior to entering a trade. Some traders might want this value to exceed 1.0 whereas others might prefer it a big higher such as >2.0 or even more. In any case, be sure to always check not only the R/R ratio iself but also the actual Reward and Risk that it is calculated from. A very high R/R ratio could simply be the result of an extremely small Risk and a mediocre Reward.



# 7 Target Clusters

In this section we will take a closer look at the Target Clusters. Like the Summary, the Target Clusters are based on *all* valid wave counts and could in a sense be seen as a visual representation of the Summary. In the screenshot below the target clusters can be identified as consisting of two components: the yellow colored **Target Paths** and the red colored, arc shaped **Target Zones**:



A unique property of **Target Clusters** is that they **combine time and price** in an entirely consistent fashion. In essence they are Fibonacci proportion based projections for the end of the current wave on the various wave degrees (time frames) that have been analyzed.

These projections (coming from *all wave counts* and from *all wave degrees*) are overlaid and combined to provide a highly informative visual representation of the various trends and targets that result from the Elliott Wave analysis performed by the software.

The **yellow** parts indicate the general direction of expected future price movement whereas the **red** parts indicates areas of resistance/support. The more the various wave counts agree with one another, the narrower these red bands will appear. In addition, bands from lower wave degrees may be seen to coincide with band from larger degrees if the lower degree pattern is in its final wave, thereby reinforcing the projected target.

It should also be noted that if there is disagreement among wave counts with regard to the trend this will be very apparent from the fact that there will be yellow colored target paths of similar proportions going both up and down.

More than any other tool in ELWAVE studying the Target Clusters can help you to develop an intuitive 'feel' for where the market might be heading. It will take some time to acquire this feel but once that happens you may find yourself wanting to see these projections all the time.

## 8 Elliott Wave Theory Primer

In this section we will briefly explain the basics behind Elliott Wave Theory which you may find beneficial when using ELWAVE. If you would like to learn more about this you can find a more thorough introduction to Elliott Wave Theory under **Help|Elliott Wave Theory**.

In Elliott Wave Theory, charts are 'labeled' to identify certain patterns that have fixed, known properties. Such properties include the number of waves, size relations (ratios) between waves and certain other conditions that must be satisfied in order for a set of labels (waves) to qualify as a certain pattern.

There are two main types of patterns: trending and corrective. Trending patterns in general consist of 5 waves labeled I, II, III, IV, V, or 1, 2, 3, 4, 5 and so on depending on the pattern's 'wave degree'. Corrective patterns typically consist of 3 waves label A, B, C or a, b, c and so on. ELWAVE recognizes and labels these patterns for you and by using the known relations between waves will calculate a target for the next wave as well as Exit levels. Each pattern has a name such as Impulse, Extension, ZigZag, Triangle

Patterns can be found on both larger and shorter time frames (or *wave degrees*) and they are categorized as a specific *wave degree* according to their size. The size of a pattern is measured as the average growth of its trending waves (I, III and V in the case of a trending pattern, A and C in the case of a corrective pattern).

This growth is measured as a percentage to achieve consistency so that waves can be compared to each other across long stretches of time. For instance a wave that increases from 50 to 100 points (100%) should be considered to be of the same size (wave degree) as one that increases (typically many years later) from 500 to 1000 points.

Each individual wave of a pattern in turn consists of subwaves that form another pattern and those subwaves in turn again consist of yet smaller waves and so on until no more waves can be discerned. This is the fractal nature of Elliott Wave Theory as depicted below:



As mentioned before a more thorough coverage of Elliott Wave Theory can be found under **Help|Elliott Wave Theory**.

### 9 Wave Inspector (advanced usage)

You might simply want to hide the Wave Inspector panel when you start out using the software and perhaps return to it at some later time. Of course if you are an Elliott Wave expert you will value the detailed look at the analysis that is afforded by the Wave Inspector, if only because it allows you to verify that ELWAVE knows what it's doing.

Initially the Wave Inspector will appear 'blank', that is it will display instructions on how to get it populated. This is done by simply moving your mouse on top of a wave in the chart (you don't even have to click). This will casue that wave along with its 'sibling' waves making up the pattern to be selected in the Wave Inspector.

At the very top of the Wave Inspector a list is shown of either **Accepted** or **Rejected** Elliott Wave patterns for the selected set of wave labels. By selecting a pattern you can see a brief description of that pattern and the Elliott Wave rules that the software has checked in order to confirm the validity of the pattern for this set of wave labels (or why the pattern was dimissed if it's in the Rejected list).

An overall score is also given to each pattern which indicates how well it conforms to the ideal Elliott Wave properties. The total score is build up from several sub scores:

#### • Pattern probability

The overall likelyhood (rate of occurence) of this pattern. Some pattern are very common and some are very rare.

#### • Guideline

Based on the number of 'guidelines' that are satisfied. Guidelines are like Elliott Wave rules except that they do not *have* to be satisfied, but if they are the pattern scores higher.

#### • Fibonacci

Based on how close the various waves' ratios are to proper Fibonacci ratios such as 0.38, 0.61, 1.61 etc. For each pattern specific ratios are desired and the more a pattern fullfills these ideal proportions, the more reliable the projection for the next wave is considered to be.

#### • Avg. sub wave pattern prob.

This is the same as the **Pattern probability** above but now for the pattern found within each sub wave.

#### • Avg. sub wave score

The overal score of each subwave of a pattern is also taken into consideration when determining the score of that pattern. This way the 'fitness' of the sub-wavecount propagates from the smallest wave degree all the way up to the highest wave degree, thereby helping to achieve a coherent analysis accross multiple wave degrees.

#### • Internal structure

Each wave of each pattern may only contain certain patterns (for instance wave 3 of an Impulse can never contain a corrective pattern such as a ZigZag). This rule verifies that no patterns are found in any of the subwaves that are not allowed in our selected pattern.

Of those patterns that are allowed some are more likely than others and this gives rise to a score which is shown for each individual subwave.

### **10 Monitor panel**

In this section we will take a closer look at the Monitor panel. The Monitor panel offers **screening** (filtering) and **ranking** of multiple lists of securities along with real-time alerts. You can define and choose your own criteria for the screening and ranking.

The monitor panel consists of a number of tabs, one for each list of securties that you define. The first time you run ELWAVE it will look something like this:

🗶 EL	WAVE																`
<u>C</u> har	t <u>V</u> iew <u>H</u> elp																
Sam	ple list × PORT	FOLIO S&P	TESTP	RTFO	IO 2 +												
Ac	tive Name	Matches	Show		Daily/5Y	Show 0	non-matching e	ntries	🍓 🔽 Ena	able							
	3 positive	(2)	V 🦯	filte		<i>c</i>	<b>T</b> : 1		EACL	5461	FACT	<b>T</b> 1	<b>T</b> 1	<b>T</b> 1	D 1.0%	<b>D D C</b>	
_	New filter nan	ne		rs (0	Accepted	Status	licker	Last	LASI 1st	2nd	3rd	1 rend	2nd	3rd	lst	2 matches	Ē
				acti	✓	OK	ibm us equity	161.86	neutral	neutral	neutral	14	+	+	47.18	×	
				è)	1	OK	msft us equity	47.69	neutral	positive	positive	+	+	+	-18.87	×	
					1	OK	goog us equity	526.98	negative	negative	negative	+	+	+	11.35	x	
					1	OK	intc us equity	37.20	positive	positive	positive	t	Ť.	t	21.41	1	
					1	ОК	yhoo us equity	49.62	positive	positive	positive	t	t	t	138.94	1	
							Ticker search						_			•	

A tab labeled Sample list is added automatically along with a tab for each portfolio that you have defined in Bloomberg. Clicking a row will automatically open the corresponding chart in the charting panel.

Click the button or right-click on a column header and select one of the menu entries to add or remove various column types:

- Regular data fields such as **Bid**, **Ask**, **Last**
- Indicators
- Elliott Wave Summary fields such as EASI, Trend, Reward% etc
- Filters

Clicking a column header will sort your items. Filters can also be added (as a column), activated, created and edited using the Filters panel on the left. The following pages describe these and other features in greater detail.

## 11 Managing security lists

General operation of the monitor is similar to what you will be used to. For instance:

To add a new tab click the + next to the last tab

To rename a tab double-click the tab header.

To add a security to the list click the cell Ticker search... at the bottom of the list in the Ticker column

To replace a security with another click the cell showing the security's ticker *twice* To delete a security from the list select the row and hit the Delete key on your keyboard

### Drag & Drop from Bloomberg monitor or Excel

You can also use drag & drop tickers from Excel or a Bloomberg Monitor to populate the a security list in ELWAVE:

- Click the cell containing the first (topmost) ticker you want to transfer to ELWAVE
- While holding the Shift key click the last (bottommost) ticker.

The rows containing your tickers should now be highlighted

• Press and hold the left mouse button on any of the highlighted cells, then move your mouse to ELWAVE's security list and release the mouse button.

### Copy & Paste tickers from Excel

Highlight the tickers you wish to copy to ELWAVE and press Ctrl-C on your keyboard. In ELWAVE select the security list (Tab) you want to add these tickers to and either press Ctrl-V on your keyboard or right-click on the security list and select Paste Tickers from the popup menu

### Working with portfolios

ELWAVE will automatically pick up whatever portfolios you have defined in Bloomberg and display each portfolio as a tab. To allow ELWAVE access to the list of securities in each portfolio you will be asked to enter your Bloomberg Unique User ID or UUID when you select a tab representing one of your portfolios:

Enter your Unique user id (UUID) to load/refresh the portfolios:
OK
If you don't know your UUID you can find it by entering IAMX <go> in Bloomberg</go>

If you wish to allow ELWAVE to import the securities currently in your portfolio enter your UUID and click OK. If you do not wish to import your portfolios at this time simply select another tab.

### Showing and hiding tabs

If you have a lot of portfolios defined in Bloomberg you may not want to have ELWAVE display and analyze all of them. To prevent ELWAVE from analyzing the security in a particular portfolio, uncheck the **Enable** box just above the security list. If you also want to hide the tab representing

your portfolio altogether click the button in the tab header and check or uncheck the tabs you wish to show or hide:



## 12 Managing monitor columns

By default a number of columns will be shown showing information about each security, including Last (current price), EASI and Trend for the first 3 analyzed time frames and Reward % for the first analyzed time frame. These are just some example values from the Summary.

Each tab can have its own unique choice of colums to be shown. If you create a new tab, the columns shown will be copied from the current tab. You can also copy the column layout from another tab to your current tab by right-clicking the a column header and selecting **Copy columns from**|*Tab to copy from*.

To customize the selection of columns to show in the current tab click the button or rightclick on a column header to bring up the column selection menu. Right-clicking the header will

result in new columns being inserted where you clicked. If you click the is any new columns you add will be appended at the right.



Each of the column categories shown contains a number of columns that can be displayed, such as Last, Bid, Ask under Data columns, SMA, EMA and other indicators under Indicator Columns etc.

Clicking **Summary columns** will bring up a dedicated window that allows you to select what values from the Summary to display:

						Ticker sea	arch							
													×	
-		Time frame	EASI	Trend	Wave	Wave %	Target1	Target2	Reward%	Exit	Reward	Risk	R/R	-
Ν	1st analyzed		×	×							× up		₩ L	
.c(	2nd analyzed		×	×										
	3rd analyzed		×	×										
			ů.			210	1		- 1	Judal Inc.	d. d. M	34		

Please refer to the previous chapter Summary for a complete description of each field.

Except for Time frame, EASI and Trend there are separate values for both the up and down trend for each field which can be selected seperately. If you are only interested in securities that are in a specific trend, for example up, select the **up** value only. If you don't care in advance about the trend select both **up** and **down**.

Expand **Filter columns** to show a list of available filters that you can enable or disable by clicking their name. In addition you can edit filters by clicking **Edit filters...** . For more about filters and editing them please click **Creating Filters** on the left.

It is also possible to display the value of any of the regular technical analysis indicator supported by ELWAVE. Click the button or right-click on a column header and select **Indicator columns** to see a list of indicators already showing:

IZ/	EAST EAST Data columns	Trend I	Crend d	Trend 3rd	Reward % 1st	3 positive 2 matches	Reward 1st, Up
	Indicator columns		SMA(C	lose,5) 🥖		.02	
	Summary columns			Availab	le		• .70
	Filter columns	•	-	•	20102	~	_

Existing Indicator columns can be edited or removed by clicking the corresponding edit  $\checkmark$  or remove  $\square$  button. To add a new indicator column expand the **Available** entry and select an indicator to add. The properties window will be shown to allow you to customized the indicator's Settings.

Finally, you can also display the result of any existing filters in a separate column. Click the button or right-click on a column header and select Filter columns to check any filter you want to see displayed. You can also do this by checking the filters Show box in the Filters panel. To read more about filters and screening click on **Screening & ranking** on the left.

#### Formatting cells

Right-clicking a cell (not the column header) will show a popup window where certain formatting options can be selected depending on the cell type. For value-based (eg. Last, Reward, R/R) cells you can select the number of decimals to display for instance.

For **EASI** and **Trend** cells you can choose between showing them as text (**positive**, **negative**, **neutral** and **up**, **down**, **up** & **down** respectively) or graphically (**↑**,**↓**,**●** and **↑**,**↓**,**↑↓**). The settings you make for a specific cell type (eg. EASI, Reward%) will apply to all cells in that column in this and all other tabs.

## 13 Screening/filtering & ranking

The most powerful aspect of the Monitor panel, and perhaps of ELWAVE as well, is the ability to screen or filter securities based on the values of the Summary values. This ability to do advanced screening on Elliott Wave based is unique to ELWAVE.

A simple form of screening is available by clicking the *ib* button to show the **Filter Row** which allows you to enter simple single-column based filter conditions:



As an alternative to manual entry of conditions in the Filter Row you can click the *solution* to bring up the following dialog to set the filter conditions:



Here you can use either the range slider or the Filter range entry fields and the between/outside controls to select the desired filter conditions.

More advanced screening is possible by applying user-defined filters to the list of securities. Filter results can be shown as separate columns without making the filter(s) active as such. To

display the output from an existing filter in a column click the is button or right-click on a column header, expand **Filter columns** and check or uncheck the filters you wish to show or hide.

Alternatively you can expand the **Filters** side panel (located left of the monitor panel) if it's not already expanded and check the box in the **Show** column for each filter you wish to view as a column:

mple list × PORTFO	DLIO S&P	T	ESTPRTF	+			
ctive Name	Matches	Show	<	Daily/5Y		Show 0 n	or
3 positive	(2)	R	/ File				
New filter name		13	12	Accer	oted	Status	Ti
		Sh	ow as ac	cepted/reje	ected	d column	b

Filter results are shown in their respective columns as  $\circ$  for accepted or  $^{\flat}$  for rejected:

	Accepted	Status	Ticker	Last	3 positive 2 matches	E 1
	✓	ОК	ibm us equity	161.89	×	
M.	✓	OK	msft us equity	47.43	×	
	✓	OK	goog us equity	521.66	×	
	✓	OK	intc us equity	36.67	$\checkmark$	
	✓	OK	yhoo us equity	48.82	$\checkmark$	
			Ticker search			

To activate a filter check the box in the column header. This will hide all non-matching securities (unless the Show non-matching entries box is ticked).

Alternatively you can expand the **Filters** side panel (located left of the monitor panel) if it's not already expanded and check the box in the **Active** column for each filter you wish to view as a column.

### Ranking/sorting

By clicking a column header you can have the securities ranked (sorted) by that particular value. If you hold the Ctrl key you can add *additional* ranking (sorting) criteria which can be useful for some combination but not for others.

Specificall, adding additional sorting criteria is only useful if existing sorting criteria are based on enumerations such as EASI or Trend where it is likely that multiple rows will have the same value. For instance you might want to sort on EASI *followed* by Reward %. The other way around is usually not useful because Reward% will typically have a unique value for each row, thereby fully defining the sorting order by itself; adding a secondary sorting criterium will have no effect in such a case.

#### Accepted column and Show non-matching entries

The Accepted column displays the combined result of all active filters: if <u>all</u> active filters display  $^{\circ}$  (accepted) the Accepted column will also display  $^{\circ}$ . If one or more of the active filters displays  $^{\circ}$  then the Accepted column will also display  $^{\circ}$ . This is useful mainly if the **Show non-matching entries** box located above the grid is checked as it allows you to see at glance which of the displayed tickers satisfy all of your selected filters while still allowing you to monitor the complete list of tickers including those that do not satisfy your criteria.

## 14 Creating and editing filters

To create a new filter or edit an existing one you can either click the button or right-click on a column header and select **Filter columns**|**Edit filters...**. This will open up the Edit filters window where you can either select an existing filter to modify or you can enter the name of your new filter in the New filter name placeholder entry in the list of filters shown on the left.

An alternative method to create or edit a filter is to expand the **Filters** side panel (located left of the monitor panel) if it's not already expanded and enter the name of your new filter in the New filter name cell in the Name column. To edit a filter through the Filters side panel simply click the corresponding edit  $\checkmark$  button.

When you create a new filter you will be given a choice beween creating an **Elliott Wave (Summary) based filter** or an **Indicator based filter**.

### Elliott Wave (Summary) based filters

When you create a new Elliott Wave (Summary) based filter the condition matrix will be empty as shown below with a single row shown to enter your criteria:

Edit filters												×
3 positive		Time frame	EASI	Trend	Wave	2	Reward		Risk		R/R	
my filter					#	min%	min	max %	min	max	min	max
Enter new filter name	-	Any										
		· ·										
							+					

### Selecting Any versus a specific time frame

In the Time frame column you can select for which time frame (wave degree) you want to specify conditions in the adjacent columns. By default this is set to **Any** which means the ELWAVE will look for the required value of EASI, Trend, Wave, Reward, Risk or R/R in all analyzed time frames or wave degrees.

For most applications it is convenient to keep **Time frame** set to **Any** as the filter can then be applied regardless of what time frame that has been analyzed.

Click the + button to specify criteria for additional time frames (wave degrees). If **Any** is selected for the first time frame, subsequent rows will be displayed as Any+1. If a *specific* time frame is selected for the first row instead of Any, for example Cycle, the subsequent rows will show up as Primary and Minor respectively.

To see an example of a filter specifying criteria for multiple wave degrees select **3 positive** from the filter list. As defined by default this will match any Summary where **EASI** has a **positive** value on *any* 3 subsequent wave degrees or time frames.

The **Trend** column allows you to specify what trend a security should have. If set it also serves to define the trend that applies to the columns that follow (Wave, Reward, Risk and R/R). For

example, if you select **down**/ in the **Trend** column and specify a **Reward %** of 5 in the same row the Reward % required minimum value will be compared to the actual value as found in the down entry in the Summary, if it exists. If it does not exist, the condition is not satisfied.

If no specific Trend is selected any conditions specified for Wave, Reward, Risk or R/R are checked against both the up and down entries of the Summary (insofar as they exist). To be considered a match all such conditions must relate the the same trend, ie. if you select a minimum value for both Reward and R/R those minimum values must refer to the same trend: both up or both down.

The **Wave** column allows you to specify what the current wave should be for the selected trend in the Trend column, ie. the most prevalent current wave for that wave degree and trend among the complete set of wave counts that ELWAVE keeps track of. You can also specify a specific minimum percentage so that the wave selected is not only just the most prevalent but also has a specified minimum relative occurrence as the current wave. Higher percentages indicate a higher occurrence with 100% meaning that the indicated or specified wave is indeed the current wave according to *all* wave counts.

The **Reward**, **Risk** and **R/R** columns allow you to specify minimum and/or maximum values for these fields in the Summary. The Reward column has an additional field where you can enter a value for the minimum **Reward %** which appears as a separate column in the Summary.

#### Indicator based filters

An indicator based filter allows you to define a filter based on the values of two indicators or data fields. Any combination of indicators and data fields can be used for the comparison. In addition, you can add or multiply the second value with a constant or a percentage before it is compared.

As an example, to create a filter that returns true when a 7-period SMA exceeds a 14 period SMA:

- Select SMA from the selection box to the left of the > comparator
- Set Period to 7 for this SMA
- Select SMA from the selection box on the right
- Set Period to 14 for this SMA

The result should look like this:

Edit filters							X
SMA 7/14 cross-over	]						
Enter new filter name		SMA		•	SMA	•	
	→	Field Period	Close	>	Field Close • Period 14 •	*/	Value

If you want to reverse the condition, ie. SMA(7) < SMA(14), move your mouse to the > operator and select < instead of >.

To add a constant value to the indicator or data field on the right, move your mouse to the selection field and select +, -, \* or /. In the **Value** field to the right of this enter a constant value or a percentage, eg. **4** or **3.2%**.

### **15 Alerts**

If any filters are active, changes in the Accepted column (from  $^{\circ}$ to  $^{\circ}$  or vice versa) will result in an audible signal (this can be disabled by clicking the  $\stackrel{\checkmark}{\triangleleft}$  icon which will then change to  $\stackrel{\textcircled{s}}{\textcircled{s}}$ ). In addition the corresponding cell in the Accepted column will be highlighted and will show how long ago the change took place for up to 5 minutes:

TESTP	RTF	оцо	2	+			
how	< ₹	Dai	ly/5Y	🔽 SI	how 3 no	on-matching en	tries 🔌
• 9	ters (1		Accep	ted	Status	Ticker	Last
	acti		<b>√</b> ⊲	min ago	ОК	DAX Index	9870.51
	ve)		×		OK	msft us equity	47.59

If the change is from Accepted  $^{\circ}$  to Rejected  $^{\circ}$  and **Show non-matching entries** is not enabled the  $^{\circ}$  status will be shown for a few seconds before the row is removed.

If an alert is triggered in a tab that is not the active tab, the tab's header will be highlighted in yellow:

