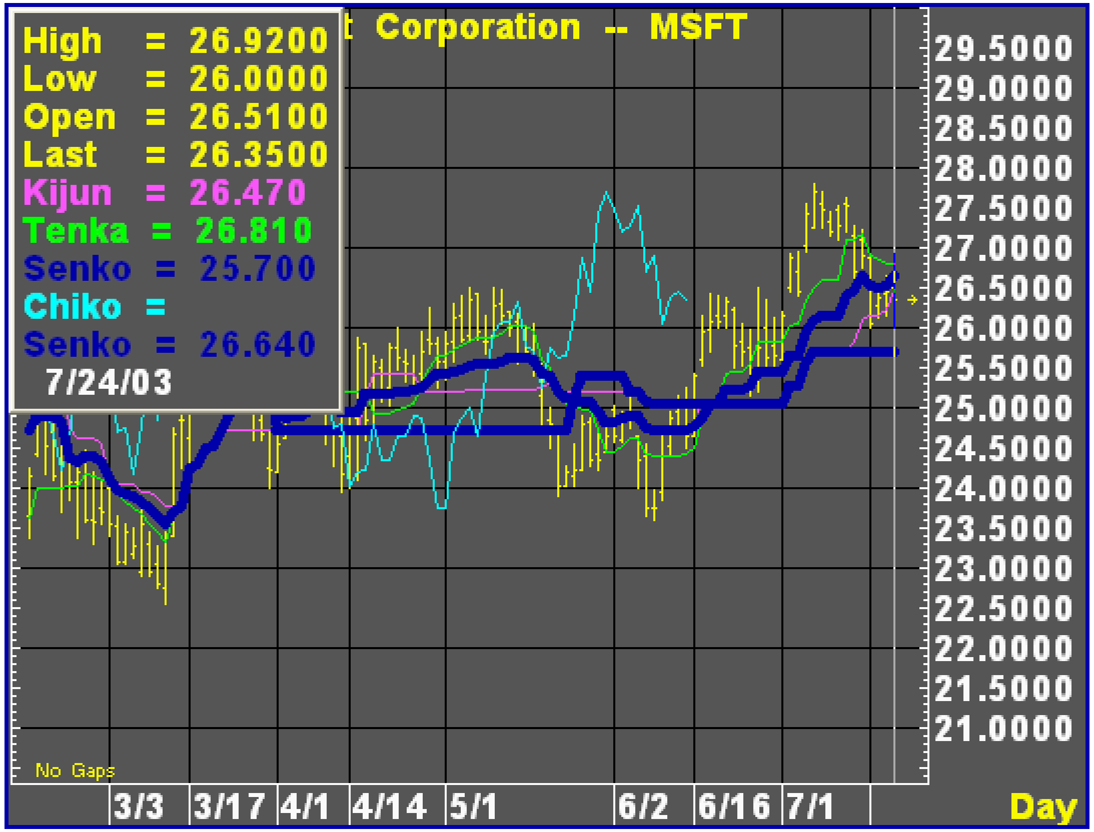
Ichomoku Kinko Hyo is a Japanese charting technique developed by a Japanese journalist who wrote under the name "Ichimoku Sanjin" prior to World War II. This study shows where a market is headed and provides entry and exit points.

Ichimoku means "glance", *Kinko* translates "balance" or "equalibrium", and *Hyo* is Japanese for "chart".

Ichimoku Kinko Hyo consists of the following lines:

1. Tenkan Sen is the conversion line.
2. Kijun Sen is the base line.
3. Chikou Span is the lagging span.
4. Senkou Span 1 is the first leading span.
5. Senkou Span 2 is the second leading span.

The *Kumo,* or Cloud, is the area between Senkou Span 1 and Senkou Span 2.

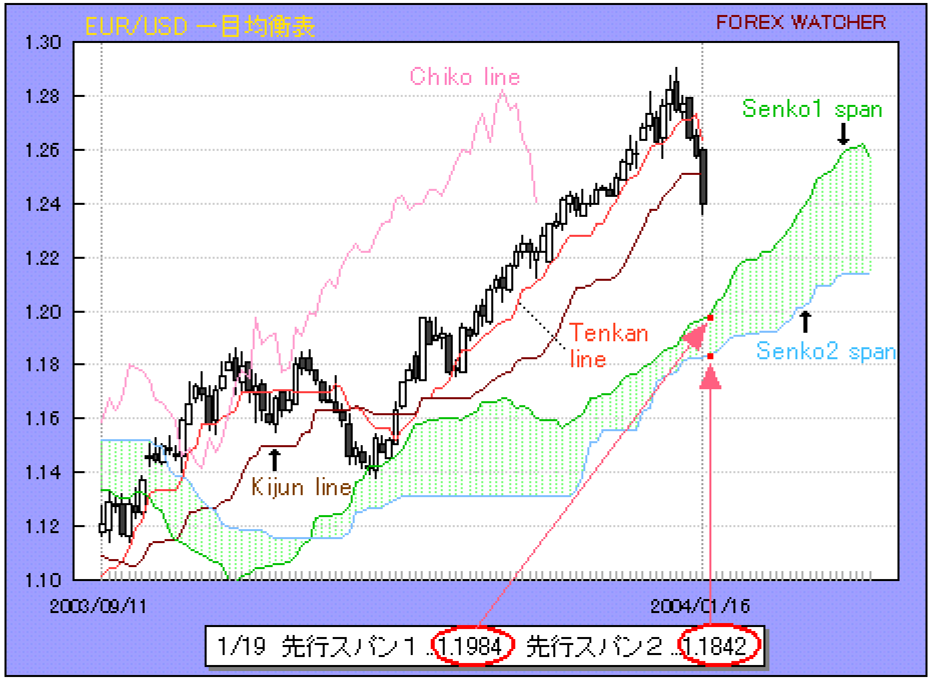


Ichimoku analysis is similar to Moving Average analysis. Buy and sell signals are given by cross-overs. A bullish signal is issued when the Tenkan Sen crosses Kijun Sen from below. Conversely, a bearish signal is given when Tenkan Sen crosses Kijun Sen from above.

Ichimoku rates the strength of bullish and bearish cross overs, too. A bullish crossover signal that occurs above the Kumo is a very strong signal. Similarly, a bearish cross over below the Kumo is considered strong.

The Kumo indicate support and resistance levels.

Ichimoku Kinko Hyo



Ichimoku Charts

The article "Ichimoku Charts", by Ken Muranaka, introduces the five formulas required to construct the Ichimoku Chart. This can be easily created in MetaStock 6.52 or higher. Select Indicator Builder from the Tools menu, select New and enter the following formula:

Name: Ichimoku Chart

```
ST:=(HHV(H,26)+LLV(L,26))/2;
TL:=(HHV(H,9)+LLV(L,9))/2;
DL:=Ref(C, 26);
1Span:=Ref((ST+TL)/2,-26);
2Span:=Ref((HHV(H,52)+LLV(L,52))/2,-26);

ST;
TL;
DL;
1Span;
2Span
```

Next locate the Ichimoku Chart indicator in MetaStock’s Indicator Builder.

The above article is contained in TASC Oct 2000

Ichimoku Kinko Hyo

History

The **Ichimoku Kinko Hyo** Japanese charting technique, developed before World War II, aimed at portraying, in a snapshot, where the price was heading and when was the right time to enter or exit the market. This was all performed without the aid of any other technical analysis technique (or study).

The word Ichimoku can be translated to mean 'a glance' or 'one look'. Kinko translates into 'equilibrium' or 'balance', with respect to price and time, and Hyo is the Japanese word for 'chart'. Thus, Ichimoku Kinko Hyo simply means **'a glance at an equilibrium chart'**, providing a panoramic view of where prices are likely to go and the position one should undertake.

Invented by a Japanese newspaper writer with a pen name of 'Ichimoku Sanjin', meaning 'a glance of a mountain man', Ichimoku charts have become a popular trading tool in Japan, not only within the equity market, but in the currency, bond, futures, commodity, and options markets as well. The technique was published over 30 years ago but has only gained international attention only within the last few years.

Calculation

The Ichimoku chart consists of five lines and the calculation of these five lines involves only taking the midpoints of previous highs and lows, similar to the Moving Average studies. Even with its simplicity, the completed chart is able to present a clear perspective into the price action of the security at hand.
The five lines are calculated as follows:
1) **Tenkan-Sen** = Conversion Line = (Highest High + Lowest Low) / 2, for the past 9 periods
2) **Kijun-Sen** = Base Line = (Highest High + Lowest Low) / 2, for the past 26 periods
3) **Chikou Span** = Lagging Span = Today's closing price plotted 26 periods behind
4) **Senkou Span A** = Leading Span A = (Tenkan-Sen + Kijun-Sen) / 2, plotted 26 periods ahead
5) **Senkou Span B** = Leading Span B = (Highest High + Lowest Low) / 2, for the past 52 periods, plotted 26 periods ahead
Kumo = Cloud = area between Senkou Span A and B
An example of an Ichimoku chart is illustrated above.

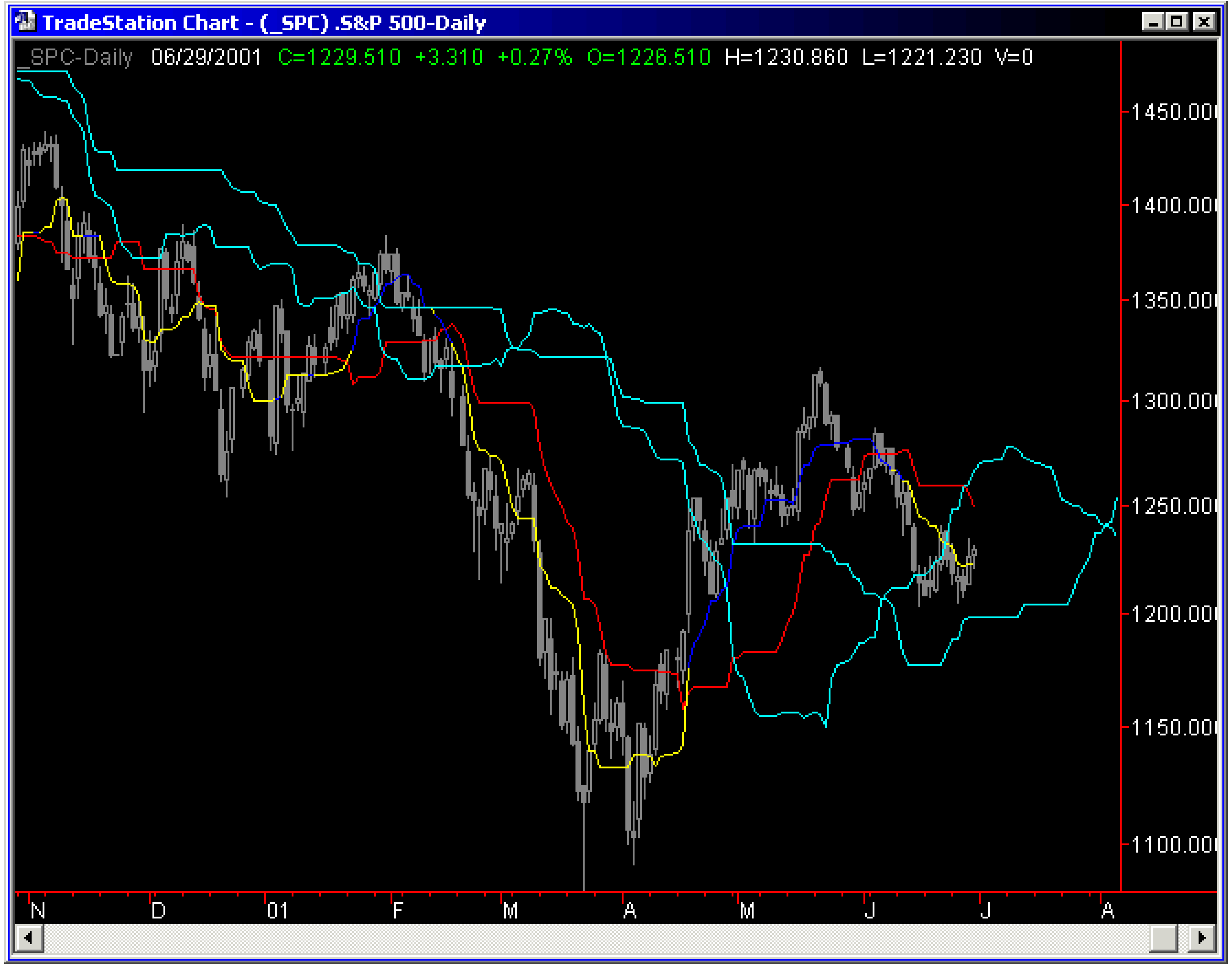
Interpretation

As can be seen from the formulas, Ichimoku is very similar to the Moving Average studies. And like moving averages, buy and sell signals are given with the **crossover technique**.
A **bullish signal** is issued when the Tenkan-Sen (green line) crosses the Kijun-Sen (purple line) from below. On the other hand, a **bearish signal** is issued when the Tenkan-Sen crosses the Kijun-Sen from above.
Moreover, there are, in fact, **different levels of strength** for the buy and sell signals of an Ichimoku chart.
First, if there was a bullish crossover signal and the crossover occurred above the Kumo (or clouds), this would be considered a very **strong buy signal** (indicated with three green up arrows). In contrast, if there was a bearish crossover signal and the crossover occurred below the Kumo, this would be considered a very **strong sell signal** (indicated with three red down arrows, as above).
Secondly, a **normal buy or sell signal** would be issued if the crossover took place within the Kumo (or clouds). These signals would be indicated with two green up arrows, for a buy signal, and two red down arrows, for a sell signal.
Thirdly, a **weak buy signal** would be issued if there was a bullish crossover that occurred below the Kumo (or clouds). This is indicated with only one green up arrow (as above). On the other hand, a **weak sell signal** would be issued if there was a bearish crossover that occurred above the Kumo. This is indicated with only one red down arrow.
Another striking feature of the Ichimoku charting technique is the identification of **support and resistance levels**. These levels can be predicted by the presence of Kumo (or clouds). The Kumo can also be used to help **identify the prevailing trend** of the market. If the price is above the Kumo, the prevailing trend is said to be up. And if the price is below the Kumo, the prevailing trend is said to be down.
A final feature of the Ichimoku chart is the **Chikou Span (or Lagging Span)**. This line can be used to determine the strength of the buy or sell signal. If the Chikou Span is below the closing price for 26 periods ago and a sell signal is issued, then the strength is with sellers, otherwise it is a weak sell signal. Conversely, if there was a buy signal and the Chikou Span is above the price for 26 periods ago, then there is strength to the upside, otherwise, it can be considered a weak buy signal. This feature can also be incorporated into the other signals.

Parameters

There are three key time periods - 9, 26, and 52. When these indicators were created back in the 1930s, a trading week was 6 days long.
9 periods or days = one and half week
26 periods = one month
52 periods = two months
Now that the trading week is 5 days, one may want to modify the parameters to the following:
7 or 8 periods or days = one and half week

22 periods = one month
44 periods = two months
The ProSticks JavaChart sets the Ichimoku Kinko Hyo to the default parameters of 9, 26, and 52 periods.

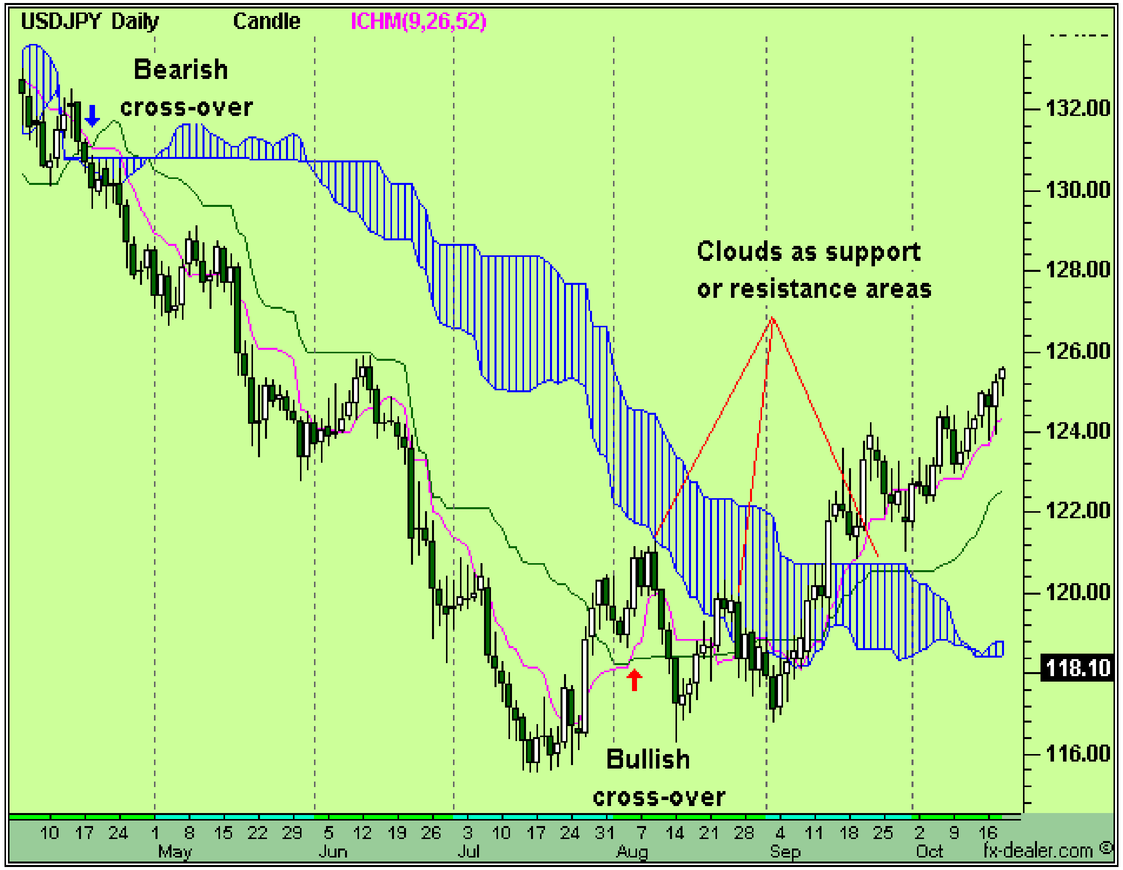

TradeStation Chart - (_SPC) .S&P 500-Daily
_SPC-Daily 06/29/2001 C=1229.510 +3.310 +0.27% O=1226.510 H=1230.860 L=1221.230 V=0
1450.00
1400.00
1350.00
1300.00
1250.00
1200.00
1150.00
1100.00
N D 01 F M A M J J A

Ichimoku

The Ichimoku study consists of 4 lines, calculated as follows:
1) **Tenkan-Sen** or Conversion Line = (Highest High + Lowest Low) / 2, for the past p1 periods
2) **Kijun-Sen** or Base Line = (Highest High + Lowest Low) / 2, for the past p2 periods
3) **Senkou Span A** or Leading Span A = (Tenkan-Sen + Kijun-Sen) / 2, plotted p4 periods ahead
4) **Senkou Span B** or Leading Span B = (Highest High + Lowest Low) / 2, for the past p3 periods, plotted p4 periods ahead
By default p1=9, p2=26, p3=52, p4=26.
Kumo, or Clouds is area between Senkou Span A and B.
Buy signal is generated when Tenkan-Sen crosses Kijun-Sen from below, sell signal is generated when Tenkan-Sen crosses Kijun-Sen from above.

Clouds play the role of support/resistance areas and help identify trends. When the price is above clouds, the trend is bullish. When the price is below clouds, the trend is bearish.

An example of Ichimoku study is illustrated on the USDJPY Daily chart



USDJPY Daily
Candle
ICHM(9,26,52)
Bearish
cross-over
Clouds as support
or resistance areas
Bullish
cross-over
132.00
130.00
128.00
126.00
124.00
122.00
120.00
118.10
116.00
10 17 24 1 8 15 22 29 5 12 19 26 3 10 17 24 31 7 14 21 28 4 11 18 25 2 9 16
May
Jun
Jul
Aug
Sep
Oct
fx-dealer.com ©

ICHIMOKU KINKO HYO

By FX-Strategy.com
http://www.fx-strategy.com

Characteristic:	Support & Resistance Indicator		
Parameter Defaults:	ST Period	26	controls the measurement period for the Kijun Sen
	TL Period	9	controls the measurement period for the Tenkan Sen
	DL Period	52	controls the measurement period for the Senkou Span
Plots:	ST	Kijun Sen	(Base Line)
	TL	Tenkan Sen	(Conversion Line)
	DL	Chikou Span	(Lagging Span)
	Span 1	Senkou Span	(Leading Span 1)
	S2	Senkou Span 2	(Leading Span2)

The term “Ichimoku” can be translated from Japanese as “instant view’ or “one glance”, “Kinko” is the equivalent of “equilibrium” or “balance” and “Hyo” means “chart”. Hence the full name “Ichimoku Kinko Hyo” actually means “one glance cloud chart” or more appropriately “Instant view of the balance chart”. Goichi Hosoda developed Ichimoku Kinko Hyo in the early Showa era (1926-1989) and copyright is owned by Kabushiki Kaisha Hendou Souken. However, Hosoda, a Japanese newspaper writer, only published his findings in 1969 and from that

point forward Ichimoku Kinko Hyo has become a permanent feature in Japanese trading rooms.
The series of lines are very similar to moving averages and are based upon high and low prices. The two Senkou Span (leading) lines are pushed forward in time to represent past support and resistance – similar in concept to the idea that once established, support will continue to provide support until broken when it becomes resistance. The area between the two Senkou Span lines is shaded to make it look like a cloud. This "cloud" not only defines the trend but acts as support and resistance for price. A very basic precept is: if price is above the cloud then the trend is higher and vice versa.

However, the relative positions of the Kijun Sen and Tenkan Sen are also important. ("Sen" is the same word that is used in "Shinkansen" – the Japanese Bullet train – having the meaning "line") Broadly, a crossing of the Tenkan Sen above the Kijun Sen is bullish and a crossing of the Tenkan Sen below the Kijun Sen is bearish.
To the positions of price against the cloud and the crossing of the Tenkan Sen and Kijun Sen the relative position of today's price against that of 26 periods prior determines the strength of the signals. The Chikou Span (lagging span) is today's price moved back 26 periods. If the Chikou Span (today's price) is below that of 26 periods ago and a sell signal occurs, it is a stronger signal than had it been above the close of 26 periods ago. Equally the opposite is true for buy signals.
The chart above is of the daily USDCHF market during the long US Dollar decline starting in March 2002. The Tenkan Sen crossed below the Kijun Sen while price was still above the cloud but with the Chikou Span being below price of 26 periods ago. It was a weak sell signal. However, subsequently price declined below the cloud and then rallied into the middle of the cloud which provided resistance. The following move lower again caused both Tenkan and Kijun Sen to move lower with the Chikou Span being well below the price of 26 periods ago. This added to the bearishness of price.
Later, when the Tenkan Sen crossed above the Kijun Sen the Chikou Span was not clearly above the price of 26 periods prior and provided only a weak buy signal. Indeed, price moved sideways for some time.

Ichimoku Kinko Hyo

Characteristic:	Support & Resistance Indicator		
Parameter Defaults:	ST Period	26	controls the measurement period for the Kijun Sen
	TL Period	9	controls the measurement period for the Tenkan Sen
	DL Period	52	controls the measurement period for the Senkou Span
Plots:	ST	Kijun Sen	(Base Line)
	TL	Tenkan Sen	(Conversion Line)
	DL	Chikou Span	(Lagging Span)
	Span 1	Senkou Span	(Leading Span 1)
	S2	Senkou Span 2	(Leading Span2)

The term “Ichimoku” can be translated from Japanese as “instant view’ or “one glance”, “Kinko” is the equivalent of “equilibrium” or “balance” and “Hyo” means “chart”. Hence the full name “Ichimoku Kinko Hyo” actually means “one glance cloud chart” or more appropriately “Instant view of the balance chart”. Goichi Hosoda developed Ichimoku Kinko Hyo in the early Showa era (1926-1989) and copyright is owned by Kabushiki Kaisha Hendou Souken. However, Hosoda, a Japanese newspaper writer, only published his findings in 1969 and from that point forward Ichimoku Kinko Hyo has become a permanent feature in Japanese trading rooms.

The series of lines are very similar to moving averages and are based upon high and low prices. The two Senkou Span (leading) lines are pushed forward in time to represent past support and resistance – similar in concept to the idea that once established, support will continue to provide support until broken when it becomes resistance. The area between the two Senkou Span lines is shaded to make it look like a cloud. This “cloud” not only defines the trend but acts as support and resistance for price. A very basic precept is: if price is above the cloud then the trend is higher and vice versa.

However, the relative positions of the Kijun Sen and Tenkan Sen are also important. ("Sen" is the same word that is used in "Shinkansen" – the Japanese Bullet train – having the meaning "line") Broadly, a crossing of the Tenkan Sen above the Kijun Sen is bullish and a crossing of the Tenkan Sen below the Kijun Sen is bearish.

To the positions of price against the cloud and the crossing of the Tenkan Sen and Kijun Sen the relative position of today's price against that of 26 periods prior determines the strength of the signals. The Chikou Span (lagging span) is today's price moved back 26 periods. If the Chikou Span (today's price) is below that of 26 periods ago and a sell signal occurs, it is a stronger signal than had it been above the close of 26 periods ago. Equally the opposite is true for buy signals.

The chart above is of the daily USDCHF market during the long US Dollar decline starting in March 2002. The Tenkan Sen crossed below the Kijun Sen while price was still above the cloud but with the Chikou Span being below price of 26 periods ago. It was a weak sell signal. However, subsequently price declined below the cloud and then rallied into the middle of the cloud which provided resistance. The following move lower again caused both Tenkan and Kijun Sen to move lower with the Chikou Span being well below the price of 26 periods ago. This added to the bearishness of price.

Later, when the Tenkan Sen crossed above the Kijun Sen the Chikou Span was not clearly above the price of 26 periods prior and provided only a weak buy signal. Indeed, price moved sideways for some time.

2 AFL Library: Ichimoku charts

Ichimoku charts - yet another Japanese charting technique is enjoying new wave of popularity. Just a few months ago, in the October 2000 issue of Technical Analysis of Stocks and Commodities (TASC) magazine an article covering this charting method was presented. I will not dig into details - they are described fairly enough in the TASC magazine - instead I am going to focus on AFL implementation, but a bit of introduction is needed:
"Literally, *ichimoku* means 'one look'; a chart of this style is referred to as [...] the table of equilibrium prices at a glance. [..] All the computations involved no more than taking midpoints of historical highs and lows in various ways. Nevertheless, the completed chart presents a panoramic view of price movement"
OK. This sounds a little bit complicated, but in fact the whole algorithm is not difficult at all. An ichimoku chart consists of:

1. the standard line calculated as one half of the sum of highest high and lowest low price over past 26 days
2. the turning line calculated as one half of the sum of highest high and lowest low price over past 9 days
3. the delayed line which is close price shifted 25 days prior to today
4. the first preceding span line which is calculated as the average of standard line and turning line and then shifted 25 days ahead of today
5. the second preceding span line which is calculated as the average of highest high and lowest low prices over past 52 days and then shifted 26 days ahead of today

An ichimoku chart is a trend-following system with an indicator similar to moving averages. As in the moving averages, a buy signal is initiated when the turning line rises above the standard line, and the sell signal is the opposite. For more details please consult the article in the October 2000 issue of TASC magazine.

We have taken the author's suggestion and adjusted the periods of the indicators for a 5 trading day week. 7 and 22 days are approximately a week and a half, and a month, respectively. The system requires the closing price of a bar to exceed both span lines for prices to be above the cloud/kumo and provide a long trade confirmation. The actual trading trigger must be the crossing of the turning line above the standard line.

Introducing "ICHIMOKU CHART"

Definition of each parameter of Ichimoku Chart

STANDARD LINE = (High for the last 26 business days + Low for the last 26 business days) / 2
The most important thing of the standard line (Std line) is not only where it is plotted in the chart, but also where it directs in the chart.

TURNING LINE = (High for the last 9 business days + Low for the last 9 business days) / 2
Turning line shows strength of a trend, coordinated with Std line.
Remarkable characteristic is to become a support line when a trend forms extensive phase.

SPAN is composed of Leading Upside / Downside. Leading upside is a price continuation of mid prices between standard line and turning line shifted forward by 26 business days.
Leading downside is a price continuation of mid prices between the last 52-days high and low shifted forward by 26 business days.
Usage for span is expectation from past price fluctuation / trade activity, which determines future prices to some extents.

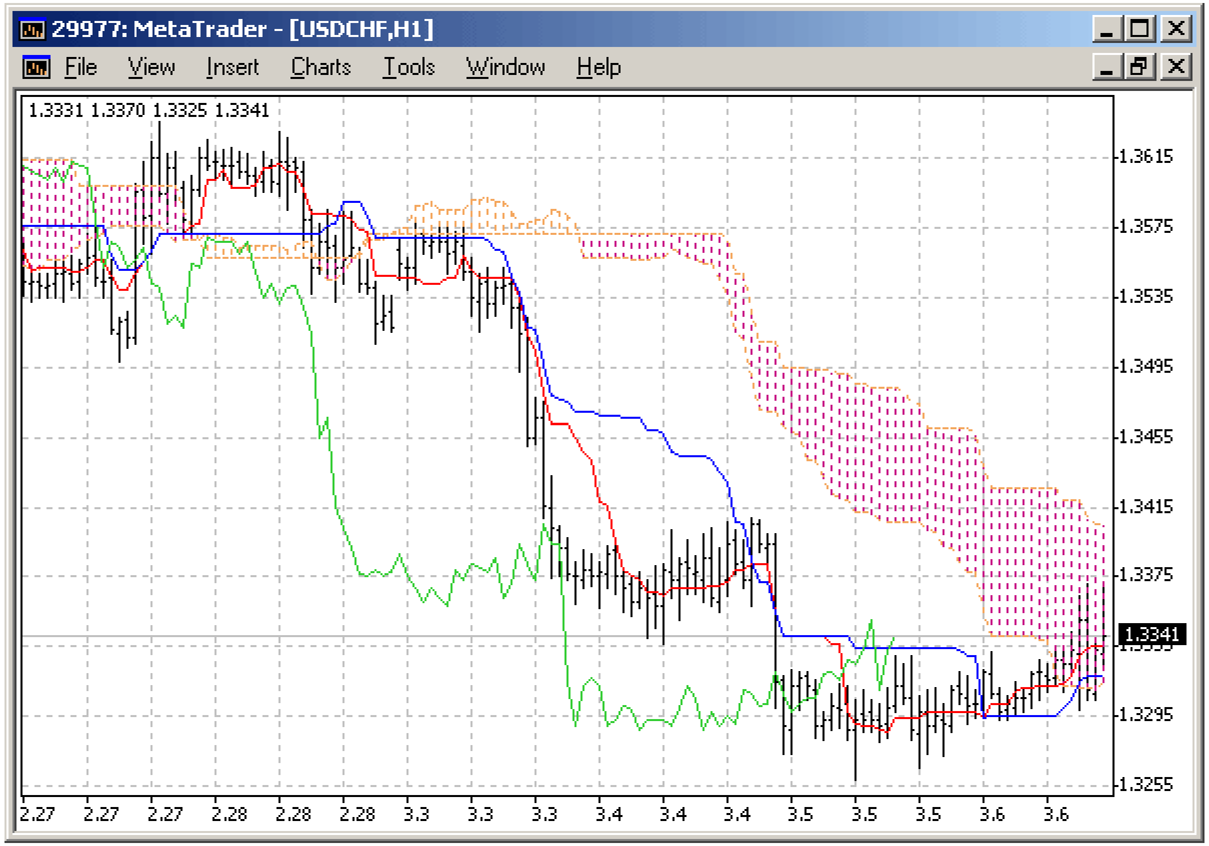
DELAYED LINE emphasized simplification of no calculation but it never can be disregarded.
It consists of a price continuation of closing prices just shifted backward by 26 business day.

Ichimoku Kinko Hyo is predefined to characterize the market trend, support and opposition levels, and to generate signals of buying and selling. This indicator works best at week and day charts.

When defining the dimension of parameters, four time intervals of different length are used. The values of individual lines composing this indicator are based on these intervals:

- Tenkan-sen shows the average price value during the first time interval defined as the sum of maximum and minimum within this time, divide by two.
- Kijun-sen shows the average price value during the second time interval.
- Senkou Span A shows the middle of the distance between two previous lines shifted forwards by the value of the second time interval.
- Senkou Span B shows the average price value during the third time interval shifted forwards by the value of the second time interval.

Chinkou Span shows the closing price of the current candle shifted backwards by the value of the second time interval. The distance between the Senkou lines is hatched with another color and called 'cloud'. If the price is between these lines, the market should be considered as non-trend, and then the cloud margins form the support and opposition levels. If the price is above the cloud, its upper line forms the first support level, and the second line forms the second support level. If the price is below cloud, the lower line forms the first opposition level, and the upper one forms the second level. If the Chinkou Span line traverses the price chart in the bottom-up direction it is signal to buy. If the Chinkou Span line traverses the price chart in the top-down direction it is signal to sell. Kijun-sen is used as an indicator of the market movement. If the price is higher than this indicator, the prices will probably continue to increase. When the price traverses this line the further trend changing is possible. Another kind of using the Kijun-sen is giving signals. Signal to buy is generated when the Tenkan-sen line traverses the Kijun-sen in the bottom-up direction. Top-down direction is the signal to sell. Tenkan-sen is used as an indicator of the market trend. If this line increases or decreases, the trend exists. When it goes horizontally, it means that the market has come into the channel.


29977: MetaTrader - [USDCHF,H1]
File View Insert Charts Tools Window Help
1.3331 1.3370 1.3325 1.3341
1.3615
1.3575
1.3535
1.3495
1.3455
1.3415
1.3375
1.3341
1.3295
1.3255
2.27 2.27 2.27 2.28 2.28 2.28 3.3 3.3 3.3 3.4 3.4 3.4 3.5 3.5 3.5 3.6 3.6