

Data Recording Modes

- [Introduction](#)
 - [Data Recording Suffixes](#)
 - [-BID](#)
 - [-ASK](#)
 - [-BIDASK](#)
 - [-BAAVG](#)
 - [-ALL](#)
 - [-BID ASK TRADE SYNC](#)
 - [Trading When Using a Data Recording Suffix](#)
 - [Charting the Bid and Ask Price Separately](#)
 - [Creating a 1 Tick Bid or Ask Chart](#)
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Introduction

Sierra Chart offers several data recording modes. These are suffixes that can be appended to any symbol (Example: **EURUSD-BIDASK**) of an Intraday chart.

An Intraday chart is opened with **File >> New/Open Intraday Chart** or **File >> Find Symbol >> Open Intraday Chart**.

These data recording suffixes cannot be used with Historical charts.

These data recording suffixes affect the method by which Trade (actual trades) and Quote (Bid and Ask) data are written/recorded to an Intraday chart data file (.scid file extension) and how the current Daily Quote Data (Daily Open, Daily High, Daily Low, Daily Close/Last) are updated.

By default, only the last trade prices are written/recorded to an Intraday chart data file and set the Current Daily Quote Data. In the case of spot Forex markets, the average of the Bid and Ask price is used instead of the last trade price since there is no last trade price.

The data recording suffixes do not affect the Historical Intraday data downloaded with the exception of some special cases. Also, there is no historical data service that exists that provides historical Bid and Ask prices which occur in between trades, except for spot Forex data which usually only provides Bid and Ask prices to begin with. For other than the spot Forex markets, this data simply does not exist and if you have a belief otherwise, you are misinformed.

These data recording suffixes also have no effect upon the Bid and Ask prices displayed in the chart.

Note: In the case of the spot Forex markets, there is no Last trade price. There is only a Bid and Ask. Therefore, when we say the Last trade price is ignored, there is not anything that is actually ignored. Spot Forex prices by default are constructed from the average of the Bid and Ask price data.

Data Recording Suffixes

-BID

Only the Bid price is recorded in the Intraday data file. The Ask and Last trade prices are ignored.

-ASK

Only the Ask price is recorded in the Intraday data file. The Bid and Last trade prices are ignored.

-BIDASK

The Bid and Ask prices are recorded in the Intraday data file. The Last trade price is ignored. The chart bars will represent the highest Ask price and the lowest Bid price during the formation of the chart bar.

-BAAVG

The average of the Bid and Ask is recorded in the Intraday data file. This average is recorded as if the last trade price trades at this average price. So therefore, if you look at the [Time and Sales Window](#), each record that you see will show the last trade price as the average of the Bid and Ask price.

The actual Last trade price is ignored, if it is available.

In the case when the symbol provides a last trade price which is not an average of the Bid and Ask prices, then to have the Last Trade Price box on the right side chart scale show the Bid and Ask average, select **Chart >> Chart Settings**. Set the **Trade and Current Quote Symbol** to the same as the **Symbol** field and include a **-BAAVG** suffix on the symbol. Otherwise, the Last Trade Price box will show the true last trade price. Not the average.

In the case where the symbol only provides bid and ask prices, the data recording or last trade price generation occurs any time there is a change with the bid price, the bid quantity, the ask price or the ask quantity.

Whether the last trade price which is generated is considered to have occurred at the Bid price (**Bid Trade**) or the Ask price (**Ask Trade**) occurs according to standard rules which is defined in the Numbers Bars [Definitions](#) section.

-ALL

The Bid, Ask, and Last trade prices are recorded in the Intraday data file.

-BID_ASK_TRADE_SYNC

The Bid, Ask, and Last trade prices are all recorded in the Intraday data file each time any one of these values changes. So they are kept synchronized with each other.

Additionally, there is a recording of the Bid, Ask, and Last trade prices whenever the Bid Size or

Ask Size changes. Although, the Bid Size or Ask Size are not recorded.

This data recording mode requires Sierra Chart is set to store data tick by tick. Refer to [Tick By Tick Data Configuration](#).

If the Bid price changes, then this new Bid price, the current Ask price and the current Last trade price are recorded in a single Intraday data record. In this particular case all of the volume fields in the intraday record will be 0. The number of trades field will be 1.

If the Ask price changes, then this new Ask price, the current Bid price and the current Last trade price are recorded in a single Intraday data record. In this particular case all of the volume fields in the intraday record will be 0. The number of trades field will be 1.

With this data recording mode, to actually see the Bid and Ask prices, you need to add the [Bid and Ask Prices](#) study to the chart. The Bid and Ask values are not part of the chart bars.

In the case where the symbol does not provide a last trade price and only Bid and Ask price updates which is commonly the case for Forex symbols, it does not make any sense to use this data recording mode suffix. Therefore, do not use it in this case.

This data recording mode does not record the Bid Size or Ask Size. To have access to that data, requires [historical market depth](#) data.

To see the individual tick records where there has not been a trade but only a bid/ask update, go to the Intraday chart for the symbol which is using this recording suffix and select **Edit >> Edit/Download Data-Intraday Chart**. Records in the editor with an **Open** price of 0, with a **Volume** of 0 and with a **Number of Trades** of 1 indicates this type of record.

To create a chart where at each column in the chart you see the current Bid price, Ask price and Last trade price all synchronized to each other, follow these instructions:

1. Select **File >> Find Symbol**.
2. In the list of symbols, select the particular symbol you want to open an Intraday chart for.
3. In the **Selected Symbol** box append the **-BID_ASK_TRADE_SYNC** suffix to the symbol.
4. Press the **Open Intraday Chart** button.
5. Select **Chart >> Chart Settings**.
6. Set **Use Number of Days to Load >> Days to Load** to a small number like 1 or 2.
7. Set the **Intraday Chart Bar Period** to **Number of Trades Per Bar**.
8. In the box below the above setting, enter a 1.
9. Select **Market Depth**.
10. Enable [Load Bid/Ask Update Only Intraday Records](#).
11. Press **OK**.
12. Add the [Bid and Ask Prices](#) Study to the chart through **Analysis >> Studies**.

The timestamps of the Intraday file records with this recording mode, are set according to the timestamp of the trade and bid/ask updates. These timestamps have precision to the millisecond.

There is also a microsecond component to timestamps. The microsecond component is incremented by 1 anytime there is a new record which has a duplicate timestamp as compared to the prior timestamp in the file. This microsecond component as described is also used even with the normal default recording mode for trades.

Studies like the [Bid Ask Depth Bars](#) which use market depth data, use timestamps which have a precision to the millisecond only. There is no microsecond adjustment done with market depth data. Therefore, the market depth data for the **Bid Ask Depth Bars** study is aligned with chart bars that contains the time range which fits the timestamps of the market depth data. In the case of a 1 **Trade Per Bar** this can result, in the market depth data being fit to a chart bar which is immediately before a chart bar that is associated with the bid/ask update. For example consider a market depth update with the timestamp 00:00:01.500000. And 2 chart bars with these timestamps: 00:00:01.100000, 00:00:01.500001. The market depth data with a timestamp 00:00:01.500000 will be aligned to the chart bar with the timestamp 00:00:01.100000 since it is considered to contain the time range from 00:00:01.100000 to 00:00:01.500000.

The historical market depth data can be directly accessed through the storage files that contain this data. Refer to [Market Depth Data File Format](#).

Trading When Using a Data Recording Suffix

When using a Data Recording Suffix on a symbol in a chart, and you want to trade from the chart, it is necessary you follow the below steps. Otherwise, the order is going to get rejected.

1. Go to the chart and select **Chart >> Chart Settings**.
2. Set the **Trade and Current Quote Symbol**, to the symbol of the chart without the Data Recording Suffix. The easy way to do this is to press the **Find** button beside the edit box and select the symbol from the lists.
3. Press **OK**.
4. You can proceed to trade from the chart normally without any symbol related issues. In many cases the **Trade and Current Quote symbol** will already be set properly in which case you do not need to perform any of these steps.

Charting the Bid and Ask Price Separately

You may want to chart the Bid price and Ask price separately within a single chart. Follow the below steps to do this.

This documentation only works with Intraday charts.

Since this documentation was written, there is now the [Bid and Ask Prices](#) study which effectively does the same thing.

1. Open a new chart for the symbol you want to chart by selecting **File >> Find Symbol**. Select the symbol and open an Intraday chart.
2. Open a new Intraday chart for the symbol you want to chart by selecting **File >> Find Symbol**. Select the symbol and then manually type in the **-BID Data**

Recording Suffix after the symbol. Example: **EURUSD-BID**.

3. Open a new Intraday chart for the symbol you want to chart by selecting **File >> Find Symbol**. Select the symbol and then manually type in the **-ASK** Data Recording Suffix after the symbol. Example: **EURUSD-ASK**.
4. Go to the first chart you opened, the one without a Data Recording suffix. Add the [Overlay \(Single Line\)](#) study through **Analysis >> Studies**.
5. Open the Study Settings window for the **Overlay** study. For instructions, refer to [Adding/Modifying Chart Studies](#).
6. Select the **Settings and Inputs** tab.
7. Press the **Scale** button and set the **Scale Range** to **Automatic**. Press OK.
8. Set the **Chart Region** to 1.
9. Set the **Chart Number to Overlay** Input to the chart with the **-BID** suffix.
10. Press OK.
11. Add a second instance of the [Overlay \(Single Line\)](#) study through **Analysis >> Studies**.
12. Open the Study Settings window for the **Overlay** study.
13. Select the **Settings and Inputs** tab.
14. Press the **Scale** button and set the **Scale Range** to **Automatic**. Press OK.
15. Set the **Chart Region** to 1.
16. Set the **Chart Number to Overlay** Input to the chart with the **-ASK** suffix.
17. Press OK.
18. Press OK.
19. On the first chart you opened you will now have separate lines for the Bid and the Ask.

Creating a 1 Tick Bid or Ask Chart

To create an Intraday chart where at each column in the chart there is the Bid or Ask price as it occurred at that moment in time, follow these instructions.

1. Set Sierra Chart for a [Tick by Tick Data Configuration](#).
2. Select **File >> Find Symbol**.
3. In the list of symbols, select the particular symbol you want to open an Intraday chart for.
4. In the **Selected Symbol** box append the **-BID** or the **-ASK** suffix to the symbol depending upon whether you want to chart the Bid prices or Ask prices.
5. Press the **Open Intraday Chart** button.
6. Select **Chart >> Chart Settings**.
7. Set **Use Number of Days to Load >> Days to Load** to a small number like 1 or 2.
8. Set the **Intraday Chart Bar Period** to **Number of Trades Per Bar**.
9. In the box below the above setting, enter a 1.
10. Press **OK**.
11. The chart will now consist of individual Bid prices or Ask prices and update in real time.

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