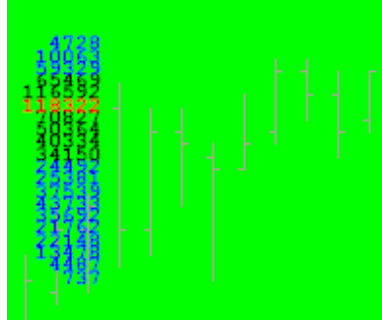


Using the “Channel” Input Variable for Volume Profile



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This document is an additional reference for subscribers to the Volume Profile Combination Pack and Volume Profile for Regular Trading Hours.

Getting Started – Quick Start – H.VP.PlotR

To start H.VP on a new NYSE listed equity such as IBM, perform the following steps:

1. Create a new Chart Analysis chart
2. Insert the IBM symbol on the chart; make sure the session is “Regular”, the display time zone is set to “Exchange”* and the Range is set to 6 days**
3. Set the chart interval to 30 minutes
4. Insert the Volume Profile H.VP indicator (turn on “Prompt for Format”). Select the “Input” tab and change Session_StartTime to 0930 and Session_EndTime to 1600, set **Channel to SYMBOLNAME+”VP”**, also consider setting Merge to 0.05

Start *VP.PlotR* on the same NYSE listed equity, perform the following steps:

1. Create a **new** Chart Analysis chart, in the same workspace or a different workspace (which may or may not be in the same TradeStation desktop)
2. Insert the IBM symbol on the chart; make sure the display time zone is set to

- “Exchange” and the Range is set to 6 days
3. Set the chart interval to 5 (or fewer) minutes
 4. Insert the Market Profile Combination Pack H.VP.PlotR indicator (turn on “Prompt for Format”). Select the “Input” tab and **set Channel to SYMBOLNAME+”VP”**.
 5. These two charts are now linked through the common setting of the Channel input value. The charts may be in the same workspace, different workspaces in the same desktop, or different workspaces in different desktops.

* There is nothing “magic” about Exchange versus Local time for your charts. The instructions in this document use Exchange time so that the information is correct for all traders regardless of their timezone and country. Should you prefer Local time then adjust Session_StartTime and Session_EndTime accordingly.

** Select a 6 day range to balance the amount of trade data downloaded with the time required to process. Products that trade high volume may require a smaller range, products that trade lower volumes may run fine with a larger range.

Common Input Parameter of The Volume Profile Indicators

Name	Default Value	Description
Channel	""	<p>Specifies the UNIQUE name of a global dictionary entry that the indicator uses to 'transmit' market profile variables information to.</p> <p>Leave as "" if the 'transmission' is not required, Set it to the same string in both the VP "transmitting" indicator and VP.PlotR "receiving" indicator to link the indicators.</p> <p>Think of the usage of the <i>Channel</i> input as you do the "symbol link" on chart analysis windows with added functionality to share across workspaces, and desktops (in addition to charts).</p>

VP.PlotR Overview

The purpose of this indicator is to display the volume profile variables: developing value area (dVAH, dPOC, dVAL) and previous value areas values from the “transmitting” chart onto a chart of a different time interval, but of the same symbol, or in a Radar Screen.

VP.PlotR General Tab

“Update value intra-bar (tick-by-tick) is supported, but not required.

VP.PlotR Inputs Tab

Name	Default Value	Description
ShowPrevVA	FALSE	Controls whether the indicator displays the previous session's value area data False = Do not show True = Show
Channel	""	Specifies the name of the global dictionary that the indicator uses to retrieve the VP information from. Never set this to "" as it disables the functionality of this indicator. Set Channel to the unique string used in the transmitting VP indicator. Think of the usage of the <i>Channel</i> input as you do the “symbol link” on chart analysis windows with added functionality to share across workspaces, and desktops (in addition to charts).

VP.PlotR Alerts Tab

Alerts are not supported. Never select “Enable Alert.”

VP.PlotR Style Tab

Use this tab to change the style and weight of the dVVAH, dVPOC, dVVAL and pVVAH, pVPOC, pVVAL.

VP.PlotR Color Tab

Use this tab to change the color of the dVVAH, dVPOC, dVVAL and pVVAH, pVPOC, pVVAL.

How To Develop Your Own Indicator for the Global Dictionary

This section assumes you know EasyLanguage and is intended as a reference for the trader to develop their own indicator or strategy that relies upon the Volume Profile developing variables.

Format of Stored Variables in the Global Dictionary

When the Channel input variable is not NULL (""), the VP indicators create two global dictionaries as follows:

```
variables:
    GlobalDictionary VPDict( Null ),
    GlobalDictionary VPDictSignal( Null );

    VPDict = GlobalDictionary.Create( true, Channel );
    VPDictSignal = GlobalDictionary.Create( true, Channel & "-VPSignal" );
```

Your strategy/indicator to access these VP values from the Global Dictionary should use the same code. VPDict contains the VP values and VPDictSignal exists for the "transmitting" VP indicators to signal to the "receiving" strategy/indicator that values in VPDict have changed. The information shared by the Volume Profile indicators are stored into the Global Dictionary as follows:

```
VPDict.Items[ Channel & ".VP.dVAH" ] = Developing.Value.Area.Hi astype double;
VPDict.Items[ Channel & ".VP.dPOC" ] = Developing.POC astype double;
VPDict.Items[ Channel & ".VP.dVAL" ] = Developing.Value.Area.Lo astype double;
VPDict.Items[ Channel & ".VP.pVAH" ] = PreviousSession.VAH astype double;
VPDict.Items[ Channel & ".VP.pPOC" ] = PreviousSession.POC astype double;
VPDict.Items[ Channel & ".VP.pVAL" ] = PreviousSession.VAL astype double;
VPDict.Items[ Channel & ".VP.date" ] = Date astype double;
VPDict.Items[ Channel & ".VP.time" ] = Time astype double;
```

The transmitting VP indicators place the developing value area information into the Global Dictionary at every candle close, regardless of whether the values changed since the close of the previous candle.

The transmitting VP indicators replace the previous values and then set the developing values to -1 at the end of the period (e.g. for VP.RTH or VP when time equals the Session_EndTime input value) into the variables as follows:

```
VPDict.Items[ Channel & ".VP.pVAH" ] = Developing.Value.Area.Hi astype double;
VPDict.Items[ Channel & ".VP.pPOC" ] = Developing.POC astype double;
VPDict.Items[ Channel & ".VP.pVAL" ] = Developing.Value.Area.Lo astype double;
VPDict.Items[ Channel & ".VP.dVAH" ] = -1;
VPDict.Items[ Channel & ".VP.dPOC" ] = -1;
VPDict.Items[ Channel & ".VP.dVAL" ] = -1;
```

Strategy/Indicator Initialization

When items in the VPDict have been updated a dummy item is stored into VPDictSignal. Indicators or strategies should wait for a change or add event in VPDictSignal as follows:

```
Method void NewMPValues( elsystem.Object sender,
```

```

elsystem.collections.ItemProcessedEventArgs args )
Begin
    // called when the signal dictionary has an added or modified item
    // only occurs when new VP variables exist
    // Perform required processing, e.g. capture new values from the dictionary
End;

Once
Begin
    // Initialization and setup of the dictionaries
    VPDict = GlobalDictionary.Create( true, Channel );
    VPDictSignal = GlobalDictionary.Create( true, Channel & "-VPSignal" );
    VPDictSignal.ItemAdded += NewVPValues;
    VPDictSignal.ItemChanged += NewVPValues;
End;

```

Plotting The VP Variables: Source Code

Sample source code is provided to assist subscribers to create additional indicators and strategies that use the developing value area data transmitted by the VP indicator(s). The source code shows the proper mechanism to use to access the global dictionary and the specific types for each datum provided by the VP indicators.

```

Using elsystem.collections;

inputs:
    string Channel( "" ); // Defines the UNIQUE chart that is the source of
                          // the developing value area data
                          // Every VP indicator that can share information
                          // has a similar input
                          // and each indicator that shares MUST use
                          // a different string for Channel input variable

variables:
    GlobalDictionary VPDict( Null ),
    GlobalDictionary VPDictSignal( Null ),
    Intrabarpersist double ddate( -1 ),
    Intrabarpersist double dtime( -1 ),
    Intrabarpersist double pVAH( -1 ),
    Intrabarpersist double pPOC( -1 ),
    Intrabarpersist double pVAL( -1 ),
    Intrabarpersist double dVAH( -1 ),
    Intrabarpersist double dPOC( -1 ),
    Intrabarpersist double dVAL( -1 );

Method void NewVPValues( elsystem.Object sender,
elsystem.collections.ItemProcessedEventArgs args )
Begin
    // called when the signal dictionary has an added or modified item

    // if the value exists in the dictionary then extract it; this indicator
    // NEVER modifies the Channel values; only captures the latest value
    If VPDict.Contains( Channel & ".VP.pVAH" ) <> False then
        pVAH = VPDict.Items[Channel & ".VP.pVAH"] astype double;
    If VPDict.Contains( Channel & ".VP.pPOC" ) <> False then
        pPOC = VPDict.Items[Channel & ".VP.pPOC"] astype double;

```

```

If VPDict.Contains( Channel & ".VP.pVAL" ) <> False then
    pVAL = VPDict.Items[Channel & ".VP.pVAL"] astype double;
If VPDict.Contains( Channel & ".VP.dVAH" ) <> False then
    dVAH = VPDict.Items[Channel & ".VP.dVAH"] astype double;
If VPDict.Contains( Channel & ".VP.dPOC" ) <> False then
    dPOC = VPDict.Items[Channel & ".VP.dPOC"] astype double;
If VPDict.Contains( Channel & ".VP.dVAL" ) <> False then
    dVAL = VPDict.Items[Channel & ".VP.dVAL"] astype double;
If VPDict.Contains( Channel & ".VP.date" ) <> False then
    ddate = VPDict.Items[Channel & ".VP.date"] astype double;
If VPDict.Contains( Channel & ".VP.time" ) <> False then
    dtime = VPDict.Items[Channel & ".VP.time"] astype double;
End; // Method void NewMPValues

Once // Initialization
Begin
    VPDict = GlobalDictionary.Create( true, Channel );
    VPDictSignal = GlobalDictionary.Create( true, Channel & "-VPSignal" );
    VPDictSignal.ItemAdded += NewVPValues;
    VPDictSignal.ItemChanged += NewVPValues;

    // Capture the previous "session" and current developing values in
    // case the VP indicator is already running when this indicator starts
    // Do this rather than to wait for the next write of developing values
    If VPDict.Contains( Channel & ".VP.pVAH" ) <> False then
        pVAH = VPDict.Items[Channel & ".VP.pVAH"] astype double;
    If VPDict.Contains( Channel & ".VP.pPOC" ) <> False then
        pPOC = VPDict.Items[Channel & ".VP.pPOC"] astype double;
    If VPDict.Contains( Channel & ".VP.pVAL" ) <> False then
        pVAL = VPDict.Items[Channel & ".VP.pVAL"] astype double;
    If VPDict.Contains( Channel & ".VP.dVAH" ) <> False then
        dVAH = VPDict.Items[Channel & ".VP.dVAH"] astype double;
    If VPDict.Contains( Channel & ".VP.dPOC" ) <> False then
        dPOC = VPDict.Items[Channel & ".VP.dPOC"] astype double;
    If VPDict.Contains( Channel & ".VP.dVAL" ) <> False then
        dVAL = VPDict.Items[Channel & ".VP.dVAL"] astype double;
    If VPDict.Contains( Channel & ".VP.date" ) <> False then
        ddate = VPDict.Items[Channel & ".VP.date"] astype double;
    If VPDict.Contains( Channel & ".VP.time" ) <> False then
        dtime = VPDict.Items[Channel & ".VP.time"] astype double;
End;

// To display relevant data on the chart or radar screen, only
// display developing information if current day is the same or
// later than the date developing value area data was stored,
// Make sure "display Time Zones" are the same on both charts
If D >= ddate then
Begin
    If dVAH = -1 then
    Begin
        // The Volume Profile indicators set their variables to
        // -1 when their period (e.g. RTH for VP.RTH,
        // ETH for VP is over.
        // Outside of period so do not plot the lines
        SetPlotColor(1, Transparent);
        SetPlotColor(2, Transparent);
        SetPlotColor(3, Transparent);
    End;
    End;
End;

```

```
End
Else
Begin
    // Inside of period so plot the lines
    Plot1( dVAH, "dVAH" );
    Plot2( dPOC, "dPOC" );
    Plot3( dVAL, "dVAL" );
End;
End; // If D >= ddate
```


Frequently Asked Questions (FAQ)

Q: Does the VP Global Dictionary contain all values (dVAH, dPOC, dVAL, pVAH, pPOC, pVAL) that were generated during the trading period?

A: No. The VP Global Dictionary only contains the most recent developing value area data. If your strategy or indicator requires historical values then you must save the values in a database or file for future processing.

Q: When are the VP Global Dictionary values for dVAH, dPOC, dVAL set to -1?

A: These values are set to -1 at the end of the session.

Q: I can not get VP.PlotR to display on a chart. What should I do?

A: Check the following three items:

1. Make sure the display time zone is the same on both charts. Either both are set to "Exchange" or both are set to "Local".
2. Make sure the Channel input variable is the same on both charts.
3. The chart with VP.PlotR may have started before the chart with the VP.RTH, VP indicator, disable then enable the VP.PlotR indicator to force the VP.PlotR indicator to search for the VP variables again.

Support

send email to indy.by.harvey@gmail.com

In addition to a clear description of the problem, configuration details of the symbol and indicator, include the version of indicator and your TradeStation platform.

Disclaimer

- Success in trading is not guaranteed
- The developer of this indicator has made good efforts to produce a quality product, however the developer is not liable should importing and inserting this indicator impact the performance or utility of the customer's TradeStation platform
- The results of any and all trades that the customer takes which may have been influenced by this indicator are the customer's and the customer's alone, regardless of whether it is a profit or a loss

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