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CDA_VolumeProfile LICENSE AGREEMENT

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Michael J. Repucci....miker@criticaldata.com
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CDA_VolumeProfile is also referred to as by its release version number **CDA_VolumeProfile_v2** as well as by the version/revision number appended to this name, e.g., **CDA_VolumeProfile_v223,** the 2nd version, 23rd revision released of the **CDA_VolumeProfile** indicator.

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CDA Reserves the right to package this indicator with other indicators which are subject to their own licensing agreement. The package will be a standard NinjaTrader 7 compatible NinjaScript Assembly, with a package “zip” file name that may vary from release to release.

CDA_VolumeProfile INSTALLATION

Use the standard ***Import NinjaScript…*** utility accessed from the NT Control Center.
If there is already a previously installed assembly with the same DLL file name, you should *first* un-install the earlier version, using the ***Remove NinjaScript Assembly…*** utility accessed from the NT Control Center.

CDA_VolumeProfile FUNCTION

Volume Profile plots session-based volume-at-price horizontal histograms overlaying the price bars. The Volume Profile is based on FuturesTrader71′s refinements to Dalton’s Market Profile approach and is distinguished from the latter, by the increased accuracy of detailed volume-at-price tracking versus time-at-price as a means to assess the relative value of the price action based on market auction theory.

CDA_VolumeProfile_v223 CHANGES

1. Added naked (open) gap lines.
2. Added 1.5x and 2x IB extensions.
3. Disabled VPOC lines when profile not enabled
4. Fixed issue with mis-drawn vpoc track lines
5. Fixed nvpoc issue when open gaps across it….now still considered naked (until tested during session hours).
6. Changed default values of ShowIB, ShowIBRange, ShowHighLowRange, and ShowOHMLC back to true.
7. Changed various parameter labels when context obvious.

CDA_VolumeProfile_v222 CHANGES

1. Changed plots of Session and MC Profiles to be much more flexible (including on single-bar session charts, like the 405min RTH)
2. Changed True/False "Show" line options to *AllSessions*, *CurrentSessionOnly*, or *False*.
3. Added *ShowStartupMessages parameters*
4. Fixed defect with *ShowIB* so now it actually works :)
5. Revamped approach for managing labels
6. Renamed several parameters, including those for "aligning" (now, "anchoring") profiles.
7. Set OperationalMode=UseCache and reset .lck file on end of rebuild
8. Changed several default values.
9. More improvements to currentSessionCacheFileUpdateLockFile management
10. Fixed issue with UseTickData mode not updating current session cache files when not running in real-time (bug introduced in v220).
11. Added additional position options to ShowDates for micro composite.
12. Eliminated bar edge color options for session and micro composite profiles.
13. Temporarily disabled *ShowSessionVolumes* parameter.

CDA_VolumeProfile_v221 CHANGES

1. Fixed defect in updating composite cache file.
2. Fixed auto-create of HistoricalCacheFolder and added dialog to confirm acceptance.
3. Added Output Window announcement of “Verifying license….”
4. Changed RefreshCompositeCacheFile value of Now to OnStartup.

CDA_VolumeProfile_v220 CHANGES

1. Added Naked VPOCs with Alerts when taken out.
2. Fixed defect with VN prices being displayed without lines.
3. Fixed defect preventing composite cache file being refreshed.

CDA_VolumeProfile_v219 CHANGES

1. Added composite cache file to improve drawing of profile.
2. Set all Full Composite Profile property grid parameters to always be enabled.
3. Added showFullCompValueNodePrice parameter to display CHVN/CLVN prices
4. Removed display of current session vpoc on y-axis grid.

CDA_VolumeProfile_v218 CHANGES

1. Fixed major defect impacting accuracy of minute vap data.
2. Fixed alignment offset issue with composite outline

3. Fixed font persistence problem.
4. Moved display of MC dates to below profile, instead of below mcVPOC.
5. Additional minor parameter label and property grip changes.
6. Set all Micro Composite Profile property grid parameters to always be enabled.

CDA_VolumeProfile_v217 CHANGES

1. Fixed defect when updating Micro Composite ending on current day
2. Removed debug Print statement
3. Added **(**back**)** full composite VPOC parameters.
4. Added option to square edges of full composite outline.
5. Shortened display names of some parameters; property grip name provides context.

CDA_VolumeProfile_v216 CHANGES

1. Added **ShowIBRange** and **ShowHighLowRange** parameters.
2. Changed so Micro Composite Begin and End dates are always enabled though still ignored if ShowMicroCompositeProfile is false.
3. Removed Version parameter; now prints startup "banner" to output window.

CDA_VolumeProfile_v215 CHANGES

4. Revamped labels so they don't overlap at same price.
5. Eliminated OMHLC label displacement parameters.
6. Fixed defect with currentSessionCacheFileUpdate lock file management; a chart in UseTickData mode, will take precedence in updating the current session cache file.
7. Changed to always load cache files when either ShowCompositeProfile or ShowMicroCompositeProfile is true and not rebuilding cache.
8. Fixed defect preventing left-alignment of Micro Composite profiles.
9. Added display of Micro Composite Begin and End dates just below mcVPOC label.
10. Revised ShowSessionVolumes and property grid; Session volumes are now displayable to left of left session boundary and only enabled using ShowSessionVolumes parameter.
11. Fixed defect preventing drawing of first session profile.

CDA_VolumeProfile_v214 CHANGES

1. Added prices to labels via new **showPriceWithLabel** parameter.
2. Added display of total session volume with Imbalance Factor via new **showSessionImbalanceFactor** parameter.
3. Added display of full composite begin date to bottom right or bottom left of chart edge via new **ShowFullCompositeBeginDate** parameter.
4. Fixed defect, regarding failure of outline mode for left-chart-edge-justified full composite profile.
5. Added currentSessionCacheFileUpdate Lock File for automatic concurrency control for updating current session cache file. Will automatically set **SuspendCurrentSessionCacheFileUpdate** to *true* if there is a conflict, insuring only one instance of the indicator is *false*;

CDA_VolumeProfile_v213 CHANGES
With v213, I've made several major enhancements thanks to comments and feedback received from some of my current customers:

1. Improved start-up performance; found an issue that unnecessarily slowed things down.
2. Support for Session, Micro Composite, and Full Composite profiles within single instance of indicator.

3. Reorganized layout of parameter sections...hopefully it's clearer.
4. Full Composite is now only based on the date range it finds within your cache files (when UseCache mode); the data series date range is ignored (unless not in UseCache mode).
5. Full Composite now supports an "outline" draw mode...simply set Full Composite Outline Color parameter to desired color for outline, and Full Composite Fill Color to transparent.
6. Full Composite alignment can now only be Left or Right on Chart Edge.
7. Micro Composite date range now based on 2 new parameters (Begin and End Date) . Alignment of Micro Composite is either left (anchored to Begin Date) or right (anchored to End Date) only.
8. Added (optional) linear 5-degree Heatmap to Micro Composite profile as illustrated

CDA_VolumeProfile RUNTIME PARAMETERS

Parameters are organized in sections and are context-enabled/disabled based on value of others. There is extensive tracing capability, in case there is a need to request help.

Composite Profile property grid section:

ShowCompositeProfile	If true, full composite profile will be drawn *Default: false*
ShowBeginDate	If true, displays full composite begin date at bottom of chart; renders text using **Volume Values Text Font** and **Volume Values Text Color** *Default: true*
AnchorPosition	Used to specify where to draw edge of full composite profile. *LeftChartEdge* or *RightChartEdge* *Default: RightChartEdge*
AnchorOffset	Used to specify displacement of full composite profile from chart edge in pixels. Applicable only when **Full Composite Fill Color** is not *Transparent*. *Default: 0*
Fill Color	Fill color of full composite histogram bars. *Default: Transparent*
Outline Color	Color of peaks of full composite histogram bars. *Default: DimGray*
Outline Square Edges	If true, outline will be squared (instead of jiggered). *Default: false*
RefreshCompositeCacheFile	Use to indicate when to automatically update composite cache file (either OnStartup or OnExit). *Default: OnExit*
Scale	Percentage of horizontal chart width used by longest histogram bar (cVPOC) of the full composite profile. *Default: 20*
Opacity	Used to set the level of transparency for the full composite profile fill color. Valid values between 0 – 10; 0 => completely transparent, 10 => no opacity. *Default: 5*
cVPOC Color	Color of full composite POC line. *Default: DimGray*
cVPOC Label	Label for full composite POC line. *Default: cVPOC*
cVPOC LineStyle	Line style of full composite POC line. *Default: Solid*
cVPOC LineWidth	Width of full composite POC line.

Default: 1

Composite Value Nodes property grid section:

ShowCompoisteValueNodes	If true, full composite value node lines will be drawn. *Default: False*
ShowCompositeValueNodePrices	If true, displays CHVN/CLVN prices below line. *Default: True*
CHVN LineColor	Color of CHVN Lines *Default: PaleGreen*
CHVN LineStyle	Style of CHVN Lines *Default: Dot*
CHVN LineWidth	Width of CHVN Lines *Default: 1*
CLVN LineColor	Color of CLVN Lines *Default: LightCoral*
CLVN LineStyle	Style of CLVN Lines *Default: Dot*
CLVN LineWidth	Width of CLVN Lines *Default: 1*
FullValueNodeStrength	Strength of Value Node in ticks around candidate node. For example, if 5, a candidate node will be a CHVN if the 5 prices below and above the candidate node price are less. Similarly, a candidate node will be a CLVN if the 5 prices below and above the candidate node price are greater. Note, that not all VNs are drawn; other rules apply. *Default: 5*

Micro Composite Profile property grid section:

ShowMicroProfile	If true, micro composite profile will be drawn. *Default: False*
ShowAsHeatmap	If true, micro composite fill color will be adjusted by 5 degrees of transparency centered on a value of 5, based on relative volumes. *Default: False*
ShowDates	If not *False*, display Begin and End Dates of MC *AboveProfile*, *BelowProfile*, or *AboveAndBelowProfile*. *Default: BelowProfile*
AnchorPosition	Used to specify where to draw straight edge of micro composite profile: at first bar of *BeginDate*, last bar of *EndDate*, first bar of current session (*Today*), or *ChartEdge*. *Default: EndDate*
AnchorEdgeOn	Used to specify orientation of profile with straight edge of profile on *Left* or *Right* at AnchorPosition; histogram will extent to opposite direction of straight edge *Default: Right*
AnchorOffset	Used to specify displacement of micro composite profile edge from AnchorPosition in pixels (+-100 max). *Default: 0*
Begin Date	Date of earliest session to begin micro composite. *Default: Today-10days*
End Date	Date of last session to end micro composite.

	Default: Today
Fill Color	Fill color of micro composite histogram bars. *Default: DarkRed*
Scale	Percentage of number of bars from Begin Date to End Date used by longest histogram bar (mcVPOC) of the micro composite profile. *Default: 20*
Opacity	Used to set the level of transparency for the micro composite profile fill color. Valid values between 0 – 10; 0 => completely transparent, 10 => no opacity. *Default: 5*
mcVPOC Color	Color of mcVPOC line. *Default: DarkRed*
mcVPOC Label	Text of mcVPOC line label. *Default: mcVPOC*
mcVPOC Line Width	Width of mcVPOC line. *Default: 1*
mcVPOC Line Style	Style of mcVPOC line. *Default: Dot*

Micro Composite Value Nodes property grid section:

ShowMicroCompositeValueNodes	If true, micro composite value node lines will be drawn. *Default: False*
ShowMicroCompositeValueNodePrices	If true, displays price below micro composite value node lines. *Default: True*
MCHVN LineColor	Color of mCHVN Lines *Default: Green*
MCHVN Lin Style	Style of mCHVN Lines *Default: Dot*
MCHVN LineWidth	Width of mCHVN Lines *Default: 1*
MCLVN LineColor	Color of mCLVN Lines *Default: Red*
MCLVN Lin Style	Style of mCLVN Lines *Default: Dot*
MCLVN LineWidth	Width of mCLVN Lines *Default: 1*
MicroValueNodeStrength	Strength of Value Node in ticks around candidate node. For example, if 5, a candidate node will be a mCHVN if the 5 prices below and above the candidate node price are less. Similarly, a candidate node will be a mCLVN if the 5 prices below and above the candidate node price are greater. Note, that not all VNs are drawn; other rules apply. *Default: 5*
EnableRealtimeUpdate	If true, updates MCHVN and MCLVN lines after close of each price bar, if EndDate includes current session. *Default: false*

Operational Parameters property grid section:

HistoricalCacheFolder	Directory used to store VAP cache files; will be created automatically, if it doesn't already exist. *Default: C:* CDA_VP\cache.

LoadMinuteCacheFileAlso	Used to indicate desire to load Minute cache file before Tick cache file, if it is available. See additional notes below. *Default: false*
RebuildHistoricalCache	If true, will force rebuild of historical volume-at-price (VAP) cache file. Rebuild using Tick or Minute volume data is specified by setting of **Volume-At-PriceMode**. See additional notes below. *Default: false*
RebuildMode	Used to indicate if indicator should Overwrite cache file or Append to it. *Default: Overwrite*
SuspendCurrentSessionCacheFileUpdate	If *true*, updating of current session cache file will be suspended. See additional notes below. *Default: false*
SuspendRealtimeProcessing	If true, will suspend real-time processing of market data. See additional notes below; should only be used for charts with Full Composite or static Micro Composites only. *Default: false*
Volume-At-Price Mode	Mode to run indicator; if *UseCache*, indicator will load cache files from HistoricalCacheFolder and draw profiles based on that VAP data; if *UseMinuteData*, indicator will not load cache files from HistoricalCacheFolder unless **ShowCompositeProfile** or **ShowMicroCompositeProfile** is *true,* and will draw profiles based VAP data calculated from Minute volume data; if *UseTickData*, indicator will not load cache files from HistoricalCacheFolder unless **ShowCompositeProfile** or **ShowMicroCompositeProfile** is *true,* and will draw profiles based VAP data calculated from Tick volume data. See additional guidelines and comments below. *Default: UseCache*

Session Profile property grid section:

ShowSessionProfile	If true, session profile will be drawn *Default: true*
AnchorPostion	Used to specify where to draw edge of session profile. Align on left relative *FirstBarOfSession* or align on right relative to *LastBarOfSession*. *Default: Left*
AnchorOffset	Used to specify right-displacement of session profile in number of pixels from edge. *Default: 0*
FillColor	Fill color of session histogram bars. *Default: DarkCyan*
OutlineColor	Color of session histogram bar edges. *Default: Transparent*
Scale	Percentage of number of bars between first bar of session and last bar of session used by longest histogram bar (VPOC).

	Default: 70
Opacity	Used to set the level of transparency for the session profile fill color. Valid values between 0 – 10; 0 => completely transparent, 10 => no opacity. *Default: 5*

Session Naked Gap property grid section:

ShowGaps	If true, plots a horizontal line for any open GAP. *Default: true*
AlertEnabled	If true, will sound audible alert when GAP is closed. *Default: false*
AlertSoundFile	Name of audible alert sound file. Default directory is NT sound directory, but any specified location is accepted. *Default: \sounds\Alert4.wav*
AppendPrice	If true, Close price will be appended to label. *Default: true*
AppendDate	If true, Close date will be appended to label. *Default: true*
Color	Color of session GAP line and label *Default: DarkOrange*
Label	Text of session GAP label *Default: n* GAP
LineStyle	Style of session GAP line *Default: Dot*
LineWidth	Width of session GAP line *Default: 1*

Session Naked VPOC property grid section:

ShowNVPOCs	If true, plots a horizontal line for any Naked VPOCs. *Default: true*
AlertEnabled	If true, will sound audible alert when Naked VPOC is taken out. *Default: false*
AlertSoundFile	Name of audible alert sound file. Default directory is NT sound directory, but any specified location is accepted. *Default: \sounds\Alert4.wav*
AppendPrice	If true, NVPOC price will be appended to label. *Default: true*
AppendDate	If true, NVPOC date will be appended to label. *Default: true*
Color	Color of session Naked VPOC line and label *Default: Red*
Label	Text of session Naked VPOC label *Default: nVPOC*
LineStyle	Style of session Naked VPOC line *Default: Dash*
LineWidth	Width of session Naked VPOC line *Default: 2*

Session VPOC property grid section:

ShowVPOCTrack	If true, plots the horizontal track line of the VPOC as it changes in real-time only, when in UseCache mode. *Default: true*

ShowVPOCTrackConnector — If true, draws the vertical track line connecting the VPOC as it changes in real-time only, when in UseCache mode.
Default: false

Color — Color of session VPOC line and label
Default: Red

Label — Text of session VPOC label
Default: VPOC

LineStyle — Style of session VPOC line
Default: Solid

LineWidth — Width of session VPOC line
Default: 1

Session Volumes property grid section:

ShowImbalanceFactor — If true, displays total volume and % imbalance factor above session high at left-edge of session boundary. Number reflects percentage of volume above (+%) or below (-%) VPOC.
Default: true

ShowSessionVolumes — If true, displays volume values aligned to left-edge of session boundary.
Default: false

Text Color — Color used for volume text values
Default: Cyan

Text Displacement — Displacement of volume text in number of bars from left-edge of session boundary.
Default: 6

Text Font — Font used for volume text values
Default: Courier New 6

Session OpenSwing property grid section:

Color — Color of Open Swing lines and labels
Default: Cyan

Label-OSH — Text of Open Swing high line label
Default: OSH

Label-OSL — Text of Open Swing low line label
Default: OSL

Line Style — Style of Open Swing lines
Default: Dot

Line Width — Width of Open Swing lines
Default: 1

Maximum Minutes — Sets maximum number of minutes to determine Open Swing.
Default: 10

ShowOS — If not *False*, displays Open Swing for *CurrentSessionOnly* or *AllSessions*.
Default: CurrentSessionOnly

Session OHMLC property grid section:

ShowOHMLC — If not *False*, displays OHMLC for *CurrentSessionOnly* or *AllSessions*.
Default: CurrentSessionOnly

ShowHighLowRange	If true, displays range of session above session high at left-edge of session boundary. *Default: True*
Session Close Color	Color of session Close line and label *Default: DarkOrange*
Session Close Label	Text of session Close label *Default: Close*
Session Close LineStyle	Style of session Close line *Default: Dash*
Session Close LineWidth	Width of session Close line *Default: 1*
Session High Color	Color of session High line and label *Default: DarkRed*
Session High Label	Text of session High label *Default: HOD*
Session High LineStyle	Style of session High line *Default: Dash*
Session High LineWidth	Width of session High line *Default: 1*
Session Low Color	Color of session Low line and label *Default: DarkGreen*
Session Low Label	Text of session Low label *Default: LOD*
Session Low LineStyle	Style of session Low line *Default: Dash*
Session Low LineWidth	Width of session Low line *Default: 1*
Session MidPt Color	Color of session MidPt line and label *Default: Green*
Session MidPt Label	Text of session MidPt label *Default: MidPt*
Session MidPt LineStyle	Style of session MidPt line *Default: Dash*
Session MidPt LineWidth	Width of session MidPt line *Default: 1*
Session Open Color	Color of session Open line and label *Default: White*
Session Open Label	Text of session Open label *Default: Open*
Session Open LineStyle	Style of session Open line *Default: Dash*
Session Open LineWidth	Width of session Open line *Default: 2*

Misc Global Settings property grid section:

Label Delay	Sets number of minutes to wait after session start to draw lines and labels. *Default: 1*
LabelDisplacement	Displacement of all labels from end of line. Number represents number of bars to shift from right edge of session. *Default: 3*
LabelFont	Font used for all labels (unless otherwise specified). *Default: Courier New, 6pt*

ShowLabels — If not *False*, displays labels for *CurrentSessionOnly* or *AllSessions*.
Default: CurrentSessionOnly

ShowPriceWithLabel — If true, displays price to right of label.
Default: true

ShowStartupMessage — If *True*, prints various announcement messages to NT Output Window…
Default: False

Session Initial Balance property grid section:

Color — Color of Initial Balance lines and labels
Default: Yellow

Color1.5x — Color of IB 1.5x lines and labels
Default: Goldenrod

Color2x — Color of IB 2x lines and labels
Default: Gold

Label-IBH — Text of Initial Balance high line label
Default: IBH

Label-IBH1.5x — Text of IBH 1.5x line label
Default: IBH

Label-IBH2x — Text of IBH 2x line label
Default: IBH

Label-IBL — Text of Initial Balance low line label
Default: IBL

Label-IBL1.5x — Text of IBL 1.5x line label
Default: IBL

Label-IBL2x — Text of IBL 2x line label
Default: IBL

Line Style — Style of Initial Balance lines
Default: Solid

Line Style1.5x — Style IB 1.5x lines
Default: Dot

Line Style2x — Style of IB 2x lines
Default: Dot

Line Width — Width of Initial Balance lines
Default: 2

Line Width1.5x — Width of IB 1.5x lines
Default: 1

Line Width2x — Width of IB 2x lines
Default: 1

DisplayRange — If true, displays range of IB area above session high at left-edge of session boundary.
Default: true

ShowIB — If not *False*, displays Initial Balance for *CurrentSessionOnly* or *AllSessions*.
Default: AllSessions

ShowIB1.5x — If not *False*, displays IB 1.5x lines for *CurrentSessionOnly* or *AllSessions*.
Default: False

ShowIB2x — If not *False*, displays IB 2x lines for *CurrentSessionOnly* or *AllSessions*.
Default: False

ShowIBRange — If true, displays range value of IB above session high at left-edge of session boundary.
Default: True

Trace/Logging property grid section:

RunLogEnabled	If true, will log user startup info into RunLogFilename. *Default: False*
RunLogFileFolder	Directory for run log files; should be periodically checked to ensure contents are not growing larger than desired or space available. *Default: C:\CDA_VP\log*
RunLogFilename	Name of file in RunLogFileFolder to record run log info; will automatically be created if it doesn't exist. *Default: runLogInfo.txt*

User Authentication property grid section:

EmailAddress	Your email address; used to communicate update notices and technical advisories. *Default: TO BE NOTIFIED OF UPDATES*
License Issuer	Licensor: Issurer of the license: CDA->CriticalDataAssociates *Default: CDA*

ADDITIONAL NOTES – PLEASE READ – ALSO PLEASE READ FAQ ON WEBSITE:

1. As you read about cache files below it is important to understand the relationship of the *consolidated* cache file to the *session-specific* (i.e., "daily") *cache files*. The former is generated using the ***RebuildHistoricalCache*** parameter. The latter is generated during the current session if the ***SuspendCurrentSessionCacheFileUpdate*** and **SuspendRealtimeProcessing** parameters are set to **False**.

   Also, the *consolidated* cache file generally will contain many days of VAP data and the *session-specific* (i.e., "daily") cache files will only contain VAP data for a single session.

2. When ***RebuildHistoricalCache*** parameter is **True**, the indicator *will use* Tick volume data if ***Volume-At-Price Mode*** parameter is set to **UseTickData** and store the resulting accumulated volume-at-price data to a file named:

   <InstrumentName>.Tick.VAP.<SessionTemplateName>.txt

   For example: ES06-11.Tick.VAP.CMEUSIndexFuturesRTH

   If ***Volume-At-Price Mode*** parameter is set to **UseMinuteData** when ***RebuildHistoricalCache*** parameter is **True** it will store the accumulated volume-at-price data to a file named:

   <InstrumentName>.Minute.VAP.<SessionTemplateName>.txt

For example: ES06-11.Minute.VAP.CMEUSIndexFuturesRTH

And stored in the folder indicated by the value set for the ***Historical Cache Folder*** parameter. The ***RebuildMode*** parameter should be used to indicate you want the rebuild to either **Overwrite** (default) or **Append** to the file.

The ***RebuildHistoricalCache*** and parameter will automatically be reset to **False** and ***Volume-At-Price Mode*** reset to **UseCache**, after all historical data has been processed.

NOTE: **The rebuild historical cache process does not create or add to the "daily" session-specific data cache files. Think of these files as the incremental cache between rebuilds. These session-specific data cache files are only update when the *RebuildHistoricalCache* parameter is False (and processing real-time data) AND *SuspendCurrentSessionCacheFileUpdate* parameter is False**.

NOTE: **The rebuild historical cache process will only rebuild the cache for the time-span of the sessions you have displayed on the chart you are using.**

3. The ***Volume-At-Price Mode*** parameter takes the place of the previous ***Volume-At-Price Based On*** parameter in v1 and is similar in that it is used to regulate the operational mode for generating volume profiles. However, with the addition of the historical cache feature, there are some distinct differences:

   When **UseCache** (default) is selected, the indicator will attempt to build profiles based on data within historical cache data, according to these rules:

   a. If either ***ShowCompositeProfile*** parameter is set to **True** and ***ShowSessionProfile*** parameter set to **False OR** if ***LoadMinuteCacheFileAlso*** parameter is **True**, it will first load any cached data from the consolidated Minute Data Cache file (if file exists):

      <InstrumentName>.Minute.VAP.<SessionTemplateName>.txt

      Note that if ***LoadMinuteCacheFileAlso*** parameter is **False** and ***ShowSessionProfile*** parameter set to **True** it will *not* load cached data from the consolidated Minute Data Cache file.

   b. It will then load any cached data from the consolidated Tick Data Cache file (if file exists):

      <InstrumentName>.Tick.VAP.<SessionTemplateName>.txt

   c. It will then load any cached data from all session-specific Tick Data Cache files (if it exists):

      <InstrumentName>.Tick.VAP.<SessionTemplateName>.<yyyyMMddHHmm>.txt

NOTE: Volume-At-Price data from a session-specific Tick Data Cache takes precedence over the consolidated Tick Data Cache which takes precedence over the consolidated Minute Data Cache.

When operating in **UseCache** mode, the indicator will automatically update the current session-specific Tick Data Cache files on the close of the bar for the chart's main data series. It will not update the consolidated historical data cache file; this file is only updated during the rebuild historical cache process (when ***RebuildHistoricalCache*** parameter is **True** and **NOT UseCache** mode).

When **UseTickData** is selected, the indicator will effectively ignore data within the historical cache data files and add a full chart time-span of tick data to process as the basis for calculating volume-at-price, greatly affecting start-up performance. The session-specific Tick Data Cache file will be automatically updated on the close of the bar for the chart's main data series.

When **UseMinuteData** is selected, the indicator will effectively ignore data within the historical cache data files and add a full chart time-span of minute data to process as the basis for calculating volume-at-price, impacting start-up performance. Even in this mode, the session-specific *Tick* Data Cache file will also be automatically updated on the close of the bar for the chart's main data series; this is based on the use of the real-time (tick) market data.

With these latter two settings, the ***Volume-At-Price Mode*** parameter can be used to basically operate v2 in a mode similar to v1.

4. It is important to understand that ***if there are no historical cache data files found***, the indicator ***will not plot*** any session profiles, when ***Volume-At-Price Mode*** parameter is set to **UseCache**.

5. If you want to suspend by processing the ***real-time market data***, set the ***SuspendRealTimeProcessing*** parameter to **True**. This is useful when ***ShowCompositeProfile*** is **True**, ***SessionProfileEnabled*** is **False**, and ***OperationalMode*** is **UseCache** (the normal mode for the Full Composite scenario and real-time processing of current day on that chart is not necessary).

6. If you want to suspend by updating of the current session's cache data file, set the ***SuspendRealTimeProcessing*** parameter to **True** or set the ***SuspendCurrentSessionCacheFileUpdate*** parameter to **True**. This is useful when you don't want an additional intraday chart with ***OperationalMode*** set to **UseCache** to also be updating the shared current session cache file.
NOTE: SuspendCurrentSessionCacheFileUpdate is automatically set to **True** whenever ***SuspendRealTimeProcessing*** is **True.**

7. RE-SYNCHING CURRENT SESSION CACHE

Good to know operational details:

As can be inferred from the information presented above, all charts use the same files to cache the volume-at-price data for a particular instrument/session-template combination. This can cause unintended problems if you are attempting to *rebuild* the historical cache from 2 concurrent charts, though I've never really been able to do this since NT doesn't seem to allow access after the first chart begins.

When running in **UseCache** mode, the indicator accumulates the current session volume-at-price values by processing the ***real-time market data***, instead of the historical data in your file system or retrieved from your data feed provider. Just as is the case with the re-building of the historical data cache, the accumulating volume-at-price values from the real-time market data stream are flushed to the current session's cache file on the close of each bar of the chart's main data series, with a very important additional flush of the last couple of bars worth of market data on the termination of the indicator or chart (by either removing the indicator from the chart, closing the chart, or closing the workspace),

If a chart running in **UseCache** mode is interrupted for any reason or if the chart is simply not ready (open) before the session begins, the displayed volume profile will likely not be correct and you will need to re-synch your current session.

The only way to accomplish this is to take advantage of the fact that all charts use the same session-specific Tick Data Cache file to cache the volume-at-price data for a particular instrument and session template along with the fact that the file is updated after each close of each chart's main data series.

So, simply create a separate chart **for the current day only**. Add the CDA_VolumeProfile indicator to the chart and set:

Rebuild Historical Cache parameter to **False**
ShowSessionProfile parameter to **True**
SuspendCurrentSessionCacheFileUpdate parameter to **False**
Volume-At-Price Mode parameter to **UseTickData**

When this new chart's volume profile appears, interrupt the caching of the out-of-synch chart by ***refreshing*** that chart by clicking F5 on the chart or open and close the Indicator for that chart. This will cause the out-of-synch chart to read the last state of the new chart's good data and resume with its real-time updates from there. If there is not significant delay, you can terminate the new chart, though I prefer to simply leave it running since that "start-up price" has been paid and would prefer to close that chart last (just in case the out-of-synch chart missed a few ticks of real-time market data when refreshing).

NOTE: **The real-time market data stream has a final flush, of the last couple of bars worth of transactions, to the current session's cache file, on the termination/exit of the indicator or chart (by either removing the indicator from the chart, closing the chart, closing the workspace, or exiting NT).**

NOTE: **Time stamps for cache data and file names are represented in UTC (to facilitate sharing of files across time zones).**

8. CONTRACT ROLL-OVER

On contract roll-over, you will want to build new cache files for the new contract, since when UseCache, the indicator uses cache files for the contract matching <InstrumentName>.

Using NinjaTrader Historical Data Manager, you will first need to download tick (last) data for the new contract for as many days back as you want for displaying session profiles. You should also download minute (last) data for the new contract for as many days back as you want for displaying the full-composite profile.

Then follow the guidelines above regarding the ***RebuildHistoricalCache*** parameter.