SD Zones

Real-time Supply/Demand System for TradeStation

The trades you always wanted but usually miss!

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Table of Contents

What does it do?

SD Zones is a trade-finding system used to find so-called **Supply Zones** and **Demand Zones**: chart patterns that indicate large pockets of institutional sell and buy orders at certain price levels. It shows the zones on TradeStation charts, updated in real-time, and provides extensive options to configure zone criteria, time periods to scan and visual appearance.

It was developed first and foremost to **save time and find more potential trades**, by scanning a list of symbols in **TradeStation's RadarScreen**, potentially on multiple timeframes/intervals for each symbol. It then alerts the user when the price of a symbol approaches a zone that might be a potential trade setup.

The scanning is highly optimized, allowing 500 or more symbol rows to be **monitored in real-time**, detecting newly formed zones and keeping track of past ones, while monitoring price as it approaches, touches into or breaks through zones.

This allows the user to review and qualify **a few realistic trade setups**, rather than wasting time poring over dozens or hundreds of charts on various timeframes to manually look for zones.

For traders who only trade a few markets/symbols, or who trade other primary strategies than supply/demand, SD Zones complements other chart indicators and trade signals, by showing **one of the most powerful and reliable forms of support and resistance** on the chart, helping the trader **focus on high probability trades** and **avoid low probability ones**.

SD Zones works equally well on stocks, futures and forex symbols, taking into consideration the variations of zone patterns on different timeframes, and the different criteria for **Entry zones** (used to time trade entries) versus **High Timeframe zones** (used to gauge "Big Picture" price context and determine preferred trade direction).

It is equally useful to **futures day traders**, who watch multiple markets on multiple timeframes for potential trade setups, such as during the busy morning hours of the US market; to **futures swing traders**, who seek larger trades on higher timeframe charts; and **to stock/options traders**, who use SD Zones to scan hundreds of stock/ETF symbols for potential trade setups, either in the stocks/ETFs themselves or using powerful supply/demand based options strategies.

Benefits

SD Zones can be used by experienced supply/demand traders as well as traders who are new to the technique. Its benefits vary depending on each user's background:

Benefits for experienced supply/demand traders

- **Scan for potential supply/demand setups** across hundreds of stocks, futures, index or forex symbols **of your choice**, to quickly locate potential trade setups, without poring over dozens or hundreds of charts.
- Scan for zones on **multiple timeframes, in real-time, anytime**, not just once a day like some trading services do. Day trades, swing trades, position trades, on any timeframe you want.
- See at a glance which markets have **potential trades coming up** within a time threshold you specify: Day traders may only be interested in trades coming up in the next 30 minutes, swing traders may be looking for trades coming up in the next few hours, while position traders may be interested in the next few days or weeks.
- Receive **alerts when new zones form in a market**, which you are otherwise likely to miss unless you happen to be looking at the exact right chart when the zone forms.
- Show zones directly on charts. Not just as static lines, but **updated in real-time** as price touches into and depletes zones or breaks through them, or as new zones form. **Zone lines indicate the "freshness" or "depletedness" of zones**. You can instantly scroll the chart to the base of the zone to inspect it visually.
- **Improve your trading skills** by spotting zones that WOULD have been great trades, and easily review whether you could have caught them given your trading rules.
- Complete, ready-to-use **TradeStation workspaces to streamline trade finding** for Scalping, Day, Swing, XL Swing or Position trading in futures, stocks and options.
- **Extensive customization options** to fit your preferences for supply/demand criteria, how to draw zones, and how to show them on charts. Settings can be made with traditional TradeStation Inputs as well as with an easy-to-use **Settings panel**, which allows changes to be applied to ALL charts and RadarScreen rows with a single mouse click.
- **Pop-up menus** in charts and RadarScreen to quickly toggle settings, manage alerts, and invalidate/restore zones.

Benefits for ANY trader

- Automatically show supply/demand zones on your charts, **to confirm other trade signals** you already use for entries and exits; **OR to filter out other trade signals** when they conflict with supply/demand zones.
- Demand zones and supply zones are **some of the highest probability support and resistance areas – which you might not otherwise notice**, unless you specifically look for them and your eyes are trained to spot them.
- Use zones to help **improve your entries** for higher probability and lower risk.
- Use zones to **select target levels** where price might turn or at least pause.
- Use zones to **select stop levels** to ensure the smallest sensible risk that still keeps a high probability of avoiding stop-out.
- Use zones to spot **what NOT to trade** and filter out trades with low probability.
- Without knowing much else about supply/demand, these can boost your win rate and profitability considerably.

The SD Zones indicator comes with a collection of ready-to-use workspaces for stock/options and futures trading.

*In this example, the **SD Radar Stocks Daily workspace** scans in RadarScreen (to the right) for S&P 500 stocks with supply/demand zones on Daily charts and highlights their **Demand** or **Supply** cells if they are coming up in the next day (changeable to any time threshold you want). Other columns show the **4-week performance relative to S&P 500**, as well as the **Implied Volatility** and **IV Percentile** of options on the stock.*

*Clicking the **Symbol** cell shows the stock on 60 min, Daily, Weekly and Monthly charts (clockwise from top-left), with **real-time supply/demand zones shown directly on the charts** for fast review and qualification of potential setups. The Daily chart reflects the zones highlighted in RadarScreen (since this is a **Daily** workspace).*

*The Daily chart also shows **Implied Volatility**, **IV Percentile** and a plot of **Historical IV** to help select the best options strategy. The Weekly chart shows the **Sector** and **Industry** to help ensure good broad market correlation; it also shows **Dividend Yield** (if any), **ExDiv date** and **number of days** to ExDiv date to help select attractive dividend stocks AND to avoid pitfalls around dividends (the **ExDiv** date and number of days **turn red 14 days before**).*

*In addition to the above mentioned **IV**, **IV Percentile**, **IV Plot**, **Sector**, **Industry** and **Dividends** indicators for stock/options traders, SD Zones comes with other useful utility indicators for futures traders.*

*See **SD Radar Stocks workspaces** below for details about the **Stocks** workspaces, and **SD Radar Futures workspaces** below for details about the **Futures** workspaces (click the links to jump directly to those sections).*

What are Supply/Demand Zones?

Supply Zones and **Demand Zones** are chart patterns indicating prior **distribution and accumulation** at certain price levels by banks, institutions and other large players. Properly identified supply/demand zones can reveal large pockets of unfilled sell and buy orders at those price levels, which may cause price to reverse or stall when it revisits them. The zones can also be magnets that attract price to those large pockets of orders.

It is one of the **most reliable and time-tested** technical analysis methodologies, with roots in the principles of TA titan **Richard Wyckoff**, who back in the early 20th century described the accumulation/distribution methods of "Smart Money" operators and the chart patterns they inescapably leave behind. Various trading websites and education providers have taught the technique in the last 20 years, as a simplified view of the classic **Wyckoff ranges**.

When properly understood, the supply/demand methodology transcends traditional technical analysis tools and indicators, which are often based on moving averages and standard deviations, because it reveals the underlying order flow which is **the original cause** of support/resistance levels, trends and other chart patterns in the first place.

Supply/demand zones can be used as a form of **support/resistance levels** on charts. When used this way, the zones are often applied **as confluence** for other chart indicators and trading signals, to **confirm or disqualify** those signals.

But mastered and used fully, supply/demand is a complete technical analysis methodology and trading strategy, which can be used to **estimate long and short term price direction, turning points, pullback levels, volatility changes, and potential entry and exit points**; all with high probability and accuracy.

*A **Supply zone** (left) and a **Demand zone** (right) found by the **SD Zones** indicator, and price reversing after coming back to the zones ("revisiting them"). These zones were paired with High Timeframe charts (HTF) to ensure that they aligned with the "preferred trade direction" at the time. See **Entry zones vs High Timeframe zones** under **Supply/Demand lessons** towards the end of this User Guide. Not all zones work as perfectly as these.*

Supply/Demand zones as trading strategy

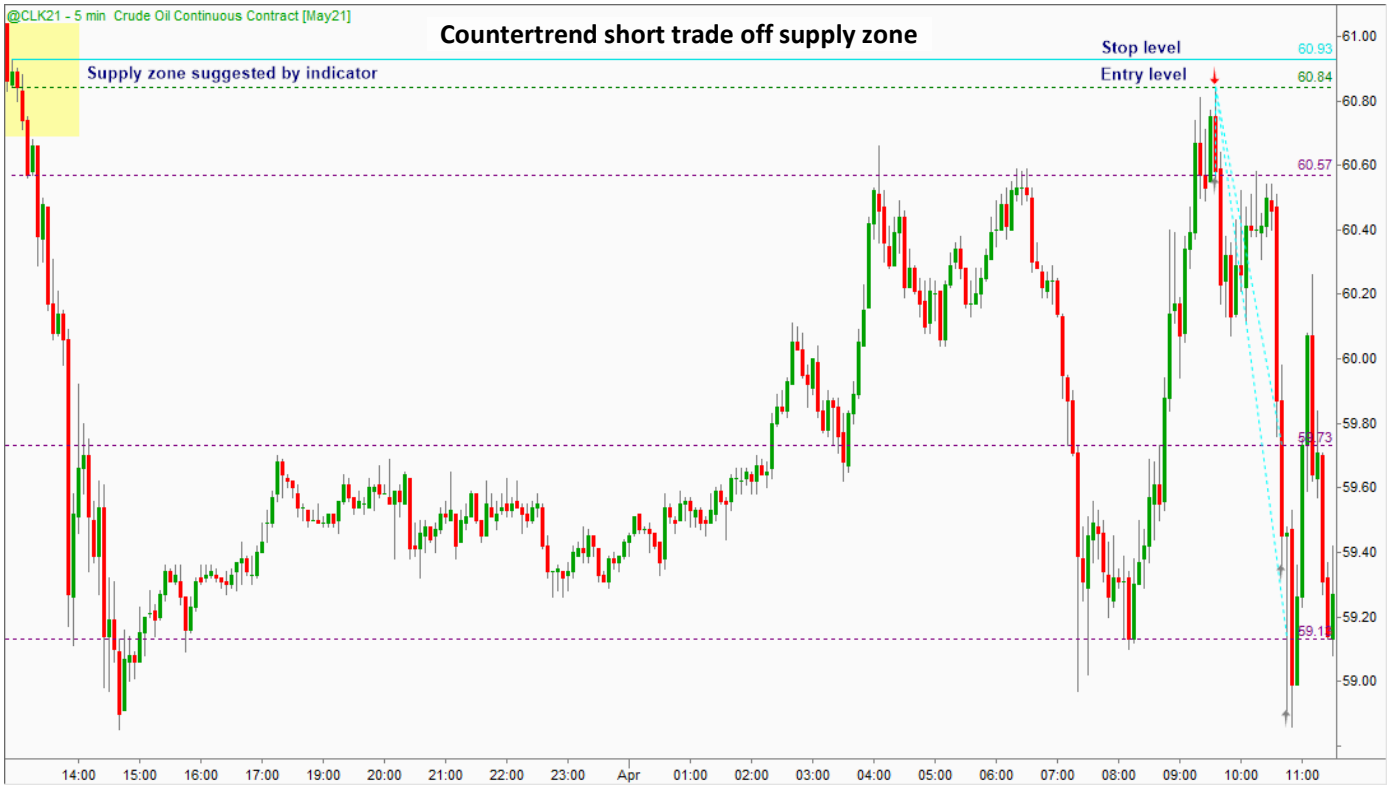
The supply/demand technique can be used as a complete trading strategy, to locate trade setups with low risk, high reward AND high probability. While there are different schools of supply/demand strategies, they all share some common principles. Refer to the example screenshot below for the following explanation.

Skilled supply/demand traders will spot a "qualified" supply or demand **Entry zone** after it has formed, and wait for price to **revisit** (come back to) the zone. They do NOT enter when price first breaks out from the zone, only when it revisits.

When revisited, traders will then enter a trade at the zone (long at demand zones, short at supply zones) and expect price to reverse for a profitable trade. It often does. Depending on the quality of the setup, resting limit orders and exit brackets can be used for true set-and-forget trades; or various types of confirmation entries can be employed. The distance to "opposing zones" provides an excellent indication of profit potential for the trade and possible targets.

The "outside" level of the zone (above a supply zone, below a demand zone) provides an ideal stop placement, as the pocket of institutional orders will be depleted if price breaks through the zone. Thus it allows for the smallest sensible risk with a high probability of avoiding stop-out.

There are many variations on this general strategy, including scaling in and out of the position, choosing targets, and adjusting entry and stop levels according to zone quality. And then there is a plethora of special **options strategies** around supply/demand. They are a match made in heaven!



Not all supply/demand trades work out as perfectly as this example, shorting a 5min supply zone in May'21 oil futures. But experienced supply/demand traders can testify that trades like this are fairly common – and can seem almost magical to other traders who do not know the supply/demand technique.

Still, losing trades are an unavoidable fact of real-life trading. That is true of supply/demand as well as any other strategy. But since most well qualified supply/demand setups offer a generous reward/risk ratio, traders can afford to have several losing trades and still remain quite profitable.

Mastering the Supply/Demand technique

The principles of the supply/demand technique – what to look for and how to use it – are fairly simple and easy to learn. However truly mastering them can take considerable practice and experience. That is true of any worthwhile endeavor in life, but particularly true when it comes to pulling money out of thin air in financial markets!

*While this User Guide offers some introduction to and tips on supply/demand (see **Supply/Demand lessons** towards the end) fully teaching it is far beyond its scope. Yet, your success with the SD Zones system will be proportional to your mastery of the supply/demand technique. Blindly trading zones suggested by the SD Zones indicator without proper qualification and context is likely to be a loosing strategy.*

Many supply/demand traders have received training from Online Trading Academy, who has taught the technique for over 15 years. The developer of the SD Zones indicator received supply/demand training there in 2009, before undertaking his own extensive research of the technique and developing his own strategy rules.

The developer has recorded various training videos, which also contain supply/demand lessons. They are available on the SD Zones Membership page where you also find the latest versions the software, SD Radar workspaces, User Guide and other resources.

Other videos are posted on the @SDzones YouTube channel, which is also a good place to post comments and questions for the developer.

Supported TradeStation versions and windows/apps

The **SD Zones** software with its included utility indicators and **SD Radar** workspaces come in versions for both TradeStation 9.5 and TradeStation 10. Most SD Zones users run TradeStation 10, while the developer uses both TS9.5 and TS10.

SD Zones works in TradeStation **Chart Analysis**, **RadarScreen** and **Scanner** windows/apps.

Note that the **RadarScreen Platform Feature** must be enabled on the TradeStation account in order to use RadarScreen. If your TradeStation platform shows only the simpler **Quotes** window instead of **RadarScreen**, it means RadarScreen isn't enabled on the account.

Advanced chart types

SD Zones detects supply/demand zones using an algorithm which relies on OHLC bars or candles (Open-High-Low-Close) to identify specific patterns. It works on all time based charts (Second, Minute, Daily, Weekly, Monthly) as well as Tick and Volume charts. It does not work (or not work reliably) on "advanced" chart types that do not contain OHLC information, such as Renko, Kagi and Range charts, which hide the "wicks" that contain the High/Low of each bar. The indicator hides itself on such chart types. It can be forced to run on them by changing the **HideOnAdvCharts** input, but this will not change the fact that these chart types do not contain the information required to reliably detect supply/demand zones.

Terminology in this user guide

This User Guide contains both TradeStation 9.5 and TradeStation 10 instructions and terminology. TradeStation 10 adopts an entirely new terminology and user interface. In particular:

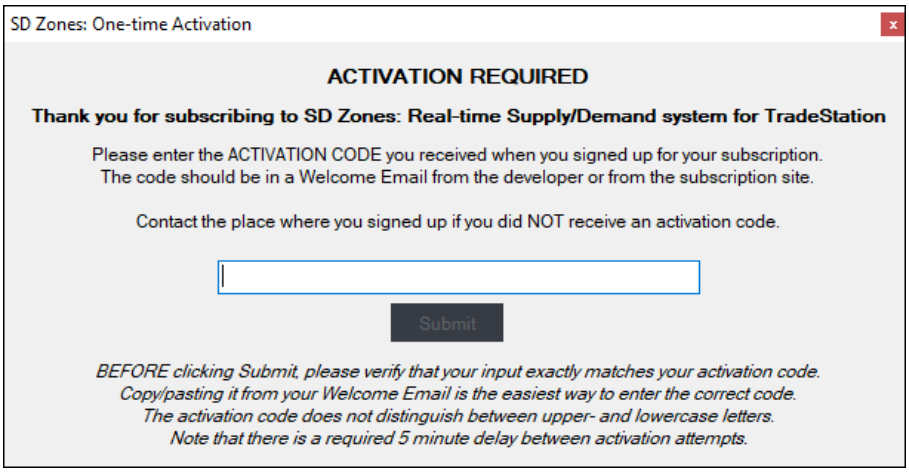
Analysis Technique is called **Study** in TS10.
Format Indicator/Analysis Technique is now **RightClick menu > Studies > Edit Studies > Customize** in TS10
Format Window (Charts) is now **Settings > Window** in TS10
Format Page (RadarScreen) is now **Settings > Page** in TS10
Show/Hide Plots (RadarScreen) is now **Studies > Show/Hide Plots** in TS10

While the visual changes are significant in TS10, the underlying functionality is very much the same as version 9.5. And so SD Zones also works the same in both versions, as long as you know these differences in terminology. Some new features in TradeStation 10 are only supported in the TS10 version of SD Zones. All users have access to both versions.

One-time activation

SD Zones requires an **active subscription** in order to run. It prompts for an **ACTIVATION CODE** the first time you run it, which registers your **TradeStation Customer Number** to your SD Zones subscription. Enter the activation code you received (usually in an email with the subject **SD Zones: Thank you for signing up)** and click the **Submit** button.

Once activated, the **red activation notice** is replaced with a **cyan chart title** and zone lines on the chart.



Your subscription covers **any number of TradeStation accounts**, **any number of computers**, and **multiple users** (such as family members) as long as they use **the same TradeStation login**. You should never have to activate again, unless you get a new TradeStation login.

If SD Zones is ever unable to verify your subscription, it will display a **red subscription notice** on charts. Please contact the developer or the place where you signed up if this should occur.

If you see a red notice on charts saying **your SD Zones version has expired**, you need to update it. Install the latest version from the SD Zones Membership page. Older versions do not expire until well after new versions have been released.

Note: SD Zones does NOT have access to your TradeStation login information or account numbers. The Customer Number is TradeStation's official way for clients to register securely with 3rd party developers.

About the developer

The software, workspaces, methods and information shared here are developed by Thomas Brandenborg, who is a veteran of the supply/demand technique since 2008, and an Online Trading Academy graduate taking his first class in April 2009, at a time when supply/demand was being taught there in its early forms. He performed extensive research into the methodology and its background, including studies of Richard Wyckoff (the true father of supply/demand from the early 20th century) and thousands of hours of chart and order flow analysis. He developed his own approach to the supply/demand methodology, which varies somewhat from that of some other supply/demand schools.

Thomas is an expert in supply/demand, and as a mentor and trading coach he has helped many other traders master it – including some who spent years and small fortunes trying to learn it elsewhere without fully succeeding.

Thomas is a TradeStation platform specialist and EasyLanguage developer. In earlier lives he was a research analyst and strategy executive in an international software firm for 13 years; he founded and ran his own consultancy for 9 years with a team of developers specializing in graphics and systems development; and he worked as a C and Assembly language systems programmer.

Thomas began his theoretical work on this software back in 2010-11 by structuring his supply/demand trading rules and qualification parameters with an eye towards automating them some day, fully or partially. He began developing the first code for SD Zones in 2017, and implemented the RadarScreen scanning feature in 2018 for his own futures day trading, in order to look for supply/demand setups more efficiently across many symbols and timeframes.

He shared the first “release” version of SD Zones with clients in early 2019, and as of March 2025 has released 62 successive versions to external users. It is mature software with regular updates.

The software is designed and developed around the way Thomas personally uses supply/demand and his proprietary pattern detection methods and rules, implemented in a highly optimized fashion to allow real-time scanning of hundreds of RadarScreen symbol rows and real-time display of zones on charts.

Thomas has an ambitious roadmap for further development of the software, with development milestones for at least the next 24 months.

Legalese (but still important)

Disclaimer

The software, workspaces and documentation provided here ("the software") are meant to help find potential trades faster and more efficiently. You MUST know the supply/demand analysis technique in order to make meaningful use of the software. You always need to manually qualify any zones found. They are suggestions ONLY, and the software will often find zones that are not suitable for a trade. In particular do you need to always consider High Timeframe charts (HTF) to make sure the "Big Picture" price context and trade direction are correct for any potential entry zones found on Entry Timeframe charts before you consider trading those zones. As any serious trader, you need to qualify all trades according to a sensible checklist and trading plan.

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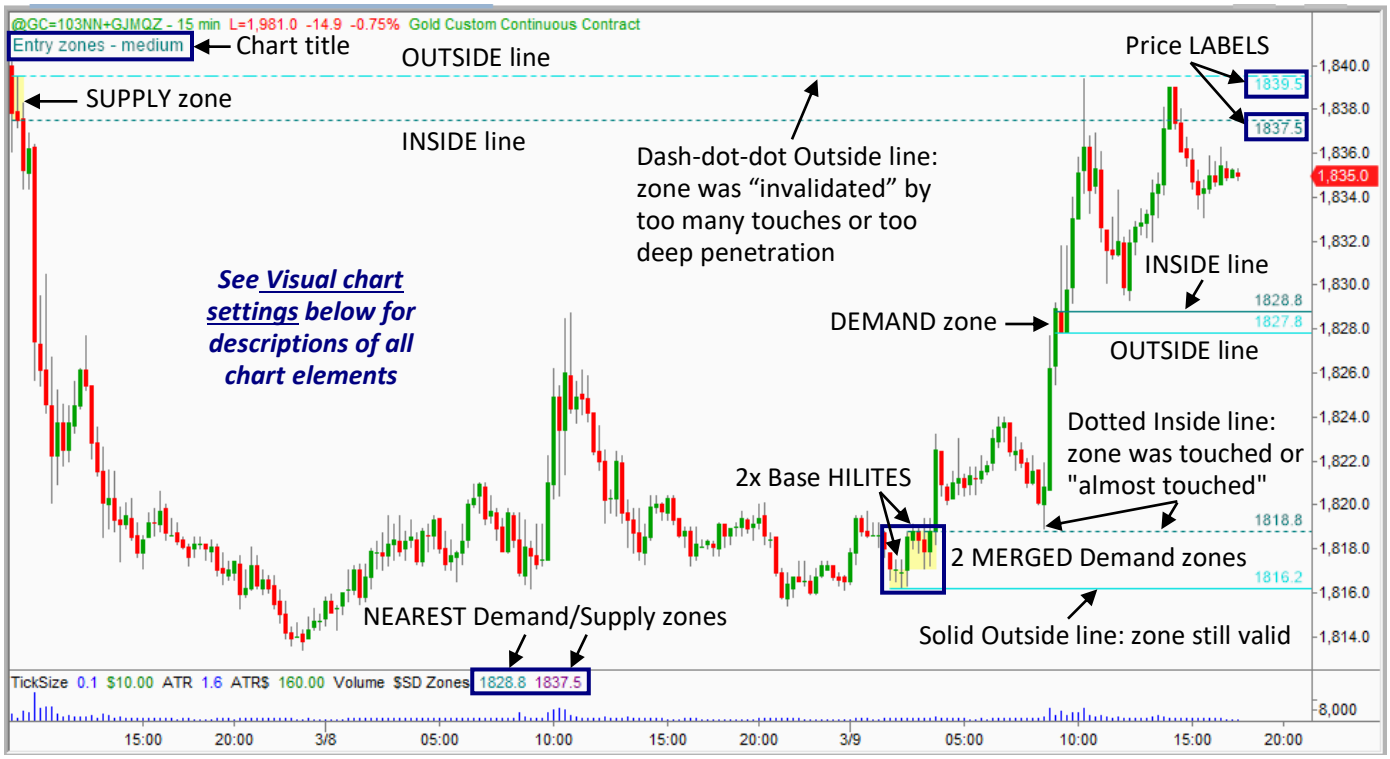
Quick start: Chart Analysis

SD Zones will detect, show, update, invalidate and remove supply/demand zones on charts in real-time.

1. In a TradeStation chart window, select **Insert menu > Indicator > $SD Zones** (In TS10 **RightClick menu > Studies > Add Study > $SD Zones**). Then click **OK**.
2. Selecting **Prompt for Format** (before **OK**) will show the **Format Indicator** screen (**Customize Indicator** in TS10), including the **Inputs** to configure zone criteria, visual appearance and other features.



Nearest Demand and Supply zones

In addition to lines which show supply/demand zones on the chart, the **Nearest Demand** and **Nearest Supply zones** (if any exist) are displayed on the status line. In this example, they have been placed on sub-graph 2 (the lower sub-graph along with the Volume bars) but they can be placed on any sub-graph. See **Visual chart settings** below.

Utility indicators: TickSize, ATR, ATR$, Dividends, Industry, Sector, IV, IV Plot

In this example the sub-graph 2 status line also displays **TickSize** (size and dollar price of each tick), **ATR** (Average True Range) and **ATR$** (ATR in dollars). These utility indicators for futures traders are included in the SD Zones package. Other utility indicators included for stock/options traders are **Dividends**, **Industry**, **Sector**, **IV** (Implied Volatility and IV Percentile) and **IV Plot**. The included **SD Radar workspaces** (see below) illustrate the intended use of these utility indicators.

Scroll to base of a zone

Zone lines extending past the left edge of a chart window mean the supply/demand zone was formed earlier in time. **Ctrl + LeftClicking the line** (either "Inside" or "Outside" line) will scroll the chart back to the zone so you can inspect it.

Zone Criteria

SD Zones detects zones according to certain criteria. It has presets for **Chart confluence zones - medium lax** (default); **HTF zones - lax** (all possible zones); **Entry zones - medium** (many zones); **Entry zones - strict** (fewer zones of higher confidence); **Entry zones - extreme** (very few zones); **Single-bar doji zones**; and **Custom zone criteria** (configured through inputs). The **Chart title** displays the preset currently in effect. See **Zone Criteria Preset** below.

Changing Inputs

To change the **Inputs** that control SD Zones' many features, use TradeStation's **Format Indicator > Inputs tab** (in TS10 **Customize Indicator**). A shortcut is to double-click a zone line and click **Yes**, then select the **Inputs tab**. See **Indicator Feature Descriptions** and **Input settings (complete list)** below for descriptions of the various features and Inputs.

Settings panel and ZoneMenu: Changing common settings

Use the **Settings panel** or the **ZoneMenu** to quickly change zone detection criteria and other common settings without having to change their inputs. See **Quick start: Settings panel** and **Quick start: Change on this chart only** below.

Quick start: RadarScreen

When added to a RadarScreen window, SD Zones will scan in real-time for supply/demand zones in each symbol row and alert the user when new zones are formed or price approaches zones that might be potential trade setups.

1. In a TradeStation RadarScreen window, select **Insert menu > Indicator** (in TS10 **RightClick menu > Studies > Add Study > Indicator**). Select **$SD Zones** (under **Available**) **> Add** (to add it to **Selected**). Click **Move Up** / **Move Down** (under **Selected**) to re-order the columns. Then click **OK**.
2. In the RadarScreen window, add rows for each symbol you want to scan for supply/demand zones. You can add multiple rows of the same symbol with different **Intervals** (timeframes); say to scan for both 15min, 30min and 60min zones. Use **RightClick** (on a **Symbol** cell) **> Format 'Symbol'** to change the Interval for that row (in TS10 **RightClick > Timeframe**).

Demand and Supply columns

These columns show the "inside" price of demand and supply zones for each symbol row: The **high of nearest demand**, the **low of nearest supply**. Dash means no zones found. See **"Look back" history** (right column on this page) to increase the amount of history requested for zone scanning.

Proximity column

This column estimates the **distance of each symbol to its nearest zone**, based on current volatility and shown as **Hours.Minutes**. See **Proximity: Distance to nearest zone** below.

Proximity alerts

Yellow highlights (DarkBlue when using black backgrounds) mean price is "within proximity" of a zone. In this example, the **AlertProximity** threshold is set to 0630 (6½ hours) but can be changed to any number of hours and minutes. See **Alerts and Notifications** below.

New Zone alerts

Orange highlights (DarkGray when using black backgrounds) mean **newly formed zones**. See **Alerts and Notifications** below.

TradeStation Alerts

To fire TradeStation alerts when **New Zone** or **Proximity alerts** trigger, RightClick the **SD Zones** column header and select **Alert > Enable Alert Continuously**. This will enable TradeStation alerts for all symbol rows. Proximity alerts already highlighted will fire immediately. Subsequent alerts will fire when new zones are formed or when price comes "within proximity" of existing zones. See **Configuring TradeStation Alerts** below, including how to set up audible alerts and emails or text messages.

Symbol	$SD Zones			Description
	Demand	Supply	Proxim	
TSLA	168.85	259.32	3.39	Tesla Inc
CONSUMER NON-CYCLICAL (CONSUMER STAPLES / XLP)				
ADM	-	54.81	40.02	Archer-Daniels-Midland
BF.B	33.11	39.49	9.11	Brown-Forman Corp Cl B
BG(HB)	-	84.71	34.49	Bunge Global SA
CAG	-	35.76	86.20	Conagra Brands Inc
CHD	89.78	-	50.50	Church & Dwight
CL	79.44	106.84	33.59	Colgate-Palmolive Co
CLX	-	158.68	24.58	Clorox Co
CPB	-	52.68	79.53	The Campbell's Company
CTVA	-	62.61	4.01	Corteva Inc W
EL	-	103.02	75.48	Lauder (Estee) Co
GIS	-	72.49	51.25	Genl Mills
GLW	47.27	-	5.42	Corning Inc
HRL	-	34.70	49.42	Hormel Foods Corp
HSY	163.90	265.61	4.03	The Hershey Co
IDXX	-	546.84	62.23	Idexx Laboratories
IFF	77.29	101.14	2.01	Intl Flavors/Fragr
K	74.88	-	193.26	Kellanova
KDP	29.80	-	30.58	Keuring Dr Pepper Inc
KHC	-	34.80	41.55	The Kraft Heinz Compan
KMB	-	-		Kimberly-Clark Corp
KO	54.57	-	70.45	Coca-Cola Co
KVUE	20.96	25.55	25.00	Kenvue Inc
LW	-	-		Lamb Weston Hldgs Inc
MDLZ	-	-		Mondelez Int'l Inc Cl A
MKC	74.89	87.31	18.37	Mccormick & Co
MNST	52.86	-	23.08	Monster Beverage Corp
MO	47.08	57.98	2.12	Altria Grp

S&P500 ETF

Change Inputs

To change Inputs such as **SettingsPreset** and **AlertProximity**, **RightClick** the **SD Zones** column header and select **Format 'SD Zones' for All Symbols > Inputs tab** (in TS10 **Studies > Edit 'SD Zones' for All Symbols**). See **Zone Criteria Preset** below.

ZoneMenu

LeftClick a **Demand** or **Supply** cell to show the **ZoneMenu**, used to "invalidate" zones and manage alerts. See **Quick start: ZoneMenu** Quick start: ZoneMenu.

Settings panel

Select **Settings…** from the **ZoneMenu**. See **Quick start: Settings panel** below.

"Look back" history

RightClick the **SD Zones** column header and select **Format 'SD Zones' for All Symbols > General tab**, then increase **Additional bars to load** to provide more historical data for zone scanning.

Show matching zones on a chart

To show the zones detected in RadarScreen on a chart, create a chart window with the same **Symbol Link color** and **Interval Link color** as the RadarScreen window. Add **$SD Zones** to the chart **using the same zone criteria as in the RadarScreen window** (same **SettingsPreset** Input value). Clicking any RadarScreen symbol cell will then show the zones on the chart. Changes made with the **Settings panel** can be applied to all charts and RadarScreen rows using the same **SettingsPreset** Input value. See **Quick start: Settings panel** below.

Quick Start: Scanner

While SD Zones was developed mainly to facilitate real-time scanning for supply/demand zones in RadarScreen, it can also be used as a criterion in TradeStation Scanner, either by itself or in combination with other Scan criteria.

1. In a TradeStation Scanner window, **Insert** a new scan (in TS10 **Add**), or **Format** an existing scan (in TS10 **Customize**) and proceed to the **Scan Criteria** tab.
2. On the **Scan Criteria** tab, click **Select Criteria > Indicator > $SD Zones**, then click **OK**.
3. On the **$SD Zones** criterion line, select **Alert** in the **Field** column, and **True** in the **Operator** column. This will use the **AlertProximity** feature to only include symbols in the scan results "within proximity" of a supply or demand zone.
4. Click the **+** sign to show the **Inputs** and other settings for the indicator.
5. Enter a Zone Criteria Preset in the **SettingsPreset** field. **2** (medium) or **3** (strict) are suggested. See **Zone Criteria Preset** below.
6. Enter a threshold in the **AlertProximity** field using TradeStation's **HHMM** format. For example **0630** for 6½ hours (the length of a US stock session). This will include only stocks that are a day or less from a zone in the scan results. See **Alerts and Notifications** below.
7. Select the **Interval** (timeframe) on which you want to scan for supply/demand zones. For example **Daily**.
8. To change the number of bars loaded by TradeStation to scan for zones, enter it under **Load additional data.** Default is looking back 500 bars.
9. Enter any additional scan criteria and click **OK** or **Run** to save or run the scan.

Scanner vs RadarScreen

Note that TradeStation scans do NOT work in real-time: they only work on the last closed bar, meaning yesterday's close on a Daily Interval; and scans ONLY run at the times you select, not continuously.

Price could have moved far away from a zone on the current bar, or it could have broken the zone already. Thus RadarScreen is generally preferred when looking for trade setups using supply/demand. But scans are a great tool to narrow a large universe of stocks down to a list which can be monitored in real-time using SD Zones in RadarScreen.

Depending on the speed of your computer and network connection, up to 500 symbols can generally be scanned and monitored in real-time using SD Zones in RadarScreen. Beyond that, Scanner is preferred, since RadarScreen may run out of memory.

Quick start: Settings panel

SD Zones contains a number of settings to control its zone detection criteria, how zones are displayed, alerts and other features. You change these settings using so-called TradeStation **Inputs**. The extensive list of Inputs is described under **Indicator Feature Descriptions** below and **Input settings (complete list)** towards the end of this guide.

Using Inputs to change settings will be familiar to TradeStation users, but SD Zones also has a **Settings panel**, providing an easier way to see and change commonly used settings. Changes made with the Settings panel **do not change the actual Input values** (which only a user can do). Instead, they **override the Input values**. You can quickly **revert to Input values**.

In charts, open Settings panel by **Ctrl + RightClicking the chart background**. In RadarScreen, open Settings panel by **LeftClicking** any **Demand, Supply** or **Proxim cell** and select **Settings…** from the **ZoneMenu** (see **Quick start: ZoneMenu** below). See the section **Settings panel** below for more information.

Settings changes made in the Settings panel are applied to ALL charts and ALL RadarScreen rows **with the same SettingsPreset Input value** unless the **Apply to all Charts** and **Apply to all RadarScreen rows** checkboxes are toggled off.

The title bar of the **Settings panel** shows the **Symbol**, **Interval** and **window type** (Chart or RadarScreen) of the selected symbol.

Zone detection tab: Zone criteria and other settings that affect zone detection.

See **Zone Criteria Preset**, **Zone types to show** and **Zone height rule** below. (Click these links to jump there.)

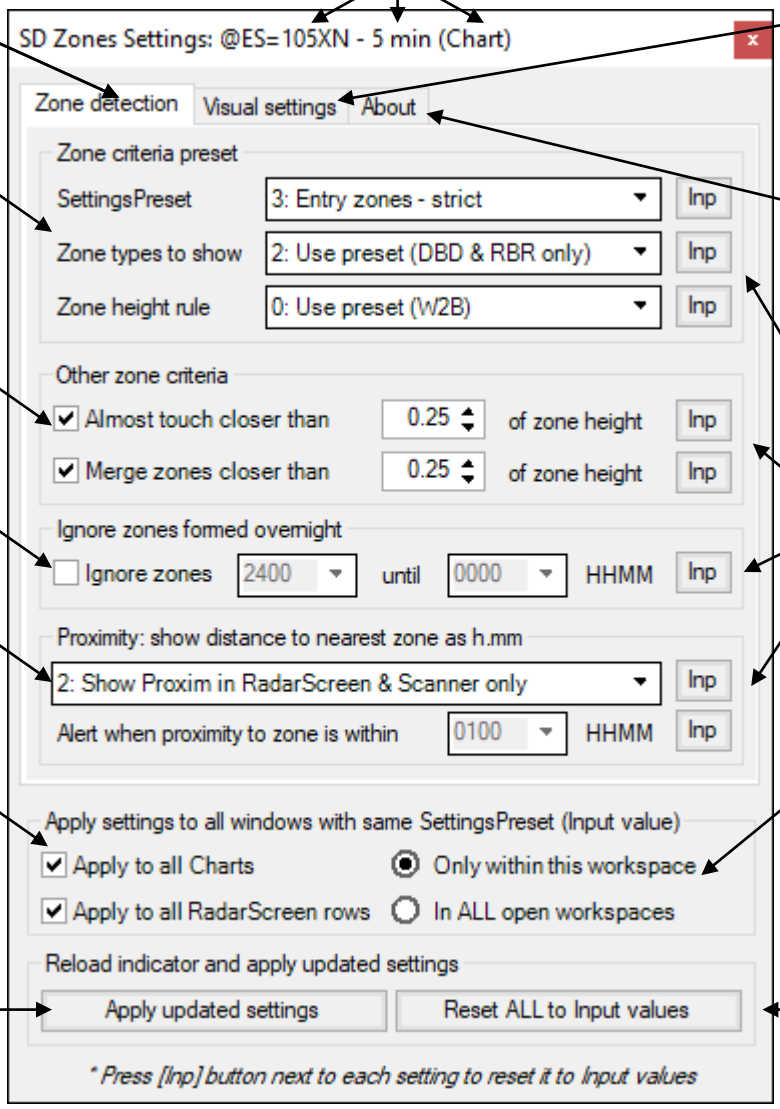
See **Touches and "almost touches"** and **Merged zones** below.

See **Ignore zones formed overnight** below.

See **Proximity: Distance to nearest zone** and **Alerts and Notifications** below.

Check to apply settings to ALL charts/RadarScreen rows **with same SettingsPreset Input value**. Uncheck to apply settings to THIS chart/RadarScreen row only.

Click the **Apply** button to update with the selected settings. Changes will NOT take affect until clicking this.



Visual settings tab: See **Visual chart settings** below.

About tab: shows SD Zones Version and other information

Click the **Inp** (Input) button for each setting to revert ***just that setting*** to its Input value

Select if settings should be applied only within THIS workspace or in ALL open workspaces

Click the **Reset ALL** button to revert ALL settings to their Input values

*Note: the **Only within this workspace** feature only works in TradeStation 10. In TradeStation 9.5 a name must be entered in the **ShareWorkspaceName** input. Otherwise settings will be applied **In ALL open workspaces**. See the section **Settings panel** below for more information.*

Quick start: ZoneMenu

SD Zones allows various manual actions to be taken on individual zones through their **ZoneMenu**. This pop-up menu is shown by **RightClicking a zone line in a chart** or by **LeftClicking a Demand or Supply cell in RadarScreen**. Unfortunately TradeStation does not allow studies to use RightClick in RadarScreen. The ZoneMenu is slightly different depending on whether shown from charts or from RadarScreen. See the two screenshots below.

Change on this chart only shows a fly-out menu offering quick and easy changing of **SettingsPreset** and toggling of other common zone criteria and visual settings instead of using the **Settings panel** (see above). Use it to review how different settings affect zones drawn on the chart. Modified settings can be quickly **Reset to Input values** after review.

Invalidate this zone marks a zone "not to be trusted" as an entry zone. Invalidated zones are removed from the RadarScreen "candidate list" and shown on charts with a dash-dot-dot outside line. See **Invalidating and restoring zones** below on this page.

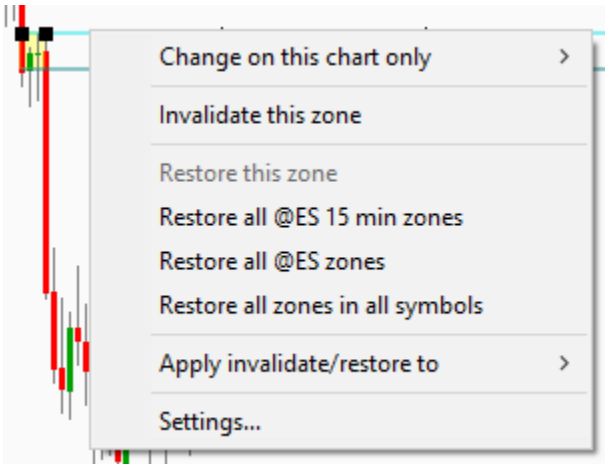
Restore this zone restores a previously Invalidated zone. If the ZoneMenu is shown from RadarScreen (lower screenshot), or if invalidated zones are hidden on charts, the menu will instead show a command to **Restore the last invalidated zone** of the same zone type as the one selected (Demand or Supply).

Restore all … zones: These commands restore ALL previously invalidated zones in the current **symbol and interval**, the current **symbol** or in **ALL symbols** across all charts and RadarScreen rows.

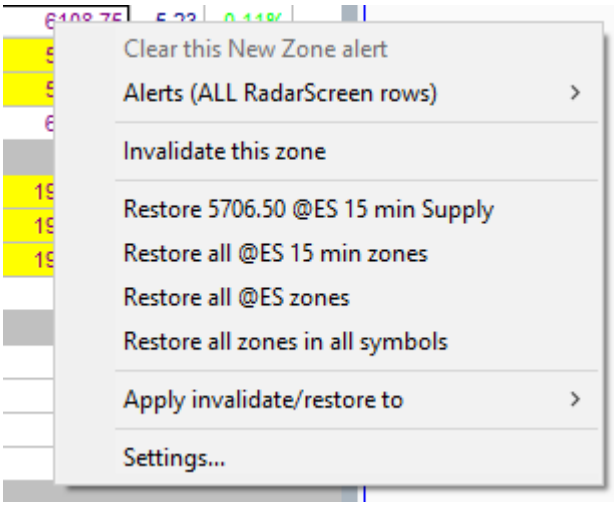
Apply invalidate/restore to shows a fly-out menu used to toggle whether changes should **Apply to all Charts** and/or **Apply to all RadarScreen rows**, and whether to apply them **Only within this workspace** or in **ALL open workspaces**. Changes are only applied to other charts/RadarScreen rows **using the same SettingsPreset input value**.

Clear this New Zone alert clears the orange RadarScreen notification highlight for a **newly formed zone** (dark gray when using black backgrounds). See **Alerts and Notifications** below.

Alerts (ALL RadarScreen rows) shows a fly-out menu offering alert commands and settings applying to ALL RadarScreen rows. See **Alerts and Notifications** below.



*In charts, open the ZoneMenu by **RightClicking a zone line** (inside or outside line works the same).*



*In RadarScreen, open the ZoneMenu by **LeftClicking a Demand or Supply cell**.*

Settings… opens the **Settings panel** for the selected chart or RadarScreen row. See **Quick start: Settings panel** above.

Invalidating and restoring zones

SD Zones ALWAYS invalidates a zone when price has touched it too many times OR penetrated too deeply into it, causing it to be removed in RadarScreen and shown with a dash-dot-dot outside line on charts. Such zones should generally not be trusted as entry zones since they are no longer "fresh". See **Line styles and zone "freshness"** below.

The ZoneMenu allows zones which have NOT already been invalidated by the indicator to be manually invalidated by the user. This lets you **"take them off the candidate list" in RadarScreen**, and see in charts that they shouldn't be trusted (like other invalidated zones). They can be hidden in charts altogether by toggling **ZoneMenu > Change on this chart only > Show invalidated zones** or by disabling **Invalidated zones** using the Settings panel.

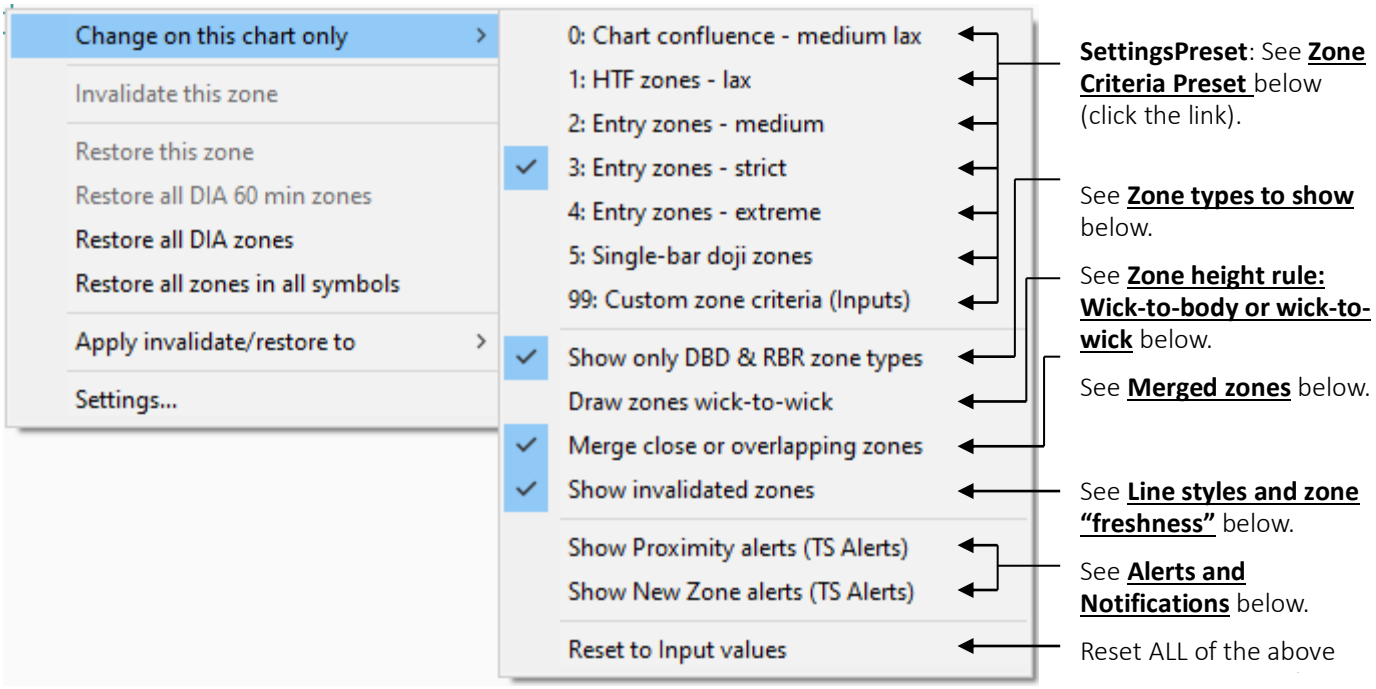
Zones which have been manually invalidated can be **restored** using the ZoneMenu in case you want to give them a second look. Zones which were invalidated by the indicator due to too many touches or too deep penetration CANNOT be manually restored. Only zones which were manually invalidated can be manually restored.

Quick start: Change on this chart only

When analyzing charts, whether reviewing the quality of an a potential zone on an Entry chart, determining the "preferred trade direction" on a High-Timeframe chart (HTF), or any number of other tasks, it is often useful to temporarily change some SD Zones settings to see "what if".

The **Change on this chart only** feature on the **ZoneMenu** (see above) allows you to toggle zone criteria and other settings with just a few mouse clicks. AND it lets you reset those settings back to Input values just as quickly.

RightClick any zone line created by SD Zones to show the **ZoneMenu**. If no zone lines are visible on the chart, **RightClick the Chart Title** in the top-left corner of the chart. One the ZoneMenu, select the **Change on this chart only** fly-out menu.



Some example scenarios where you will find **Change on this chart only** very useful:

- Temporarily change an HTF chart to **Entry zones (medium** or **strict)** to see if an HTF zone is "Entry quality", thus making it legit for countertrend trades. See **Supply/Demand lessons** below.
- Temporarily change an Entry chart to **Entry zones - extreme** to check if the structural quality of a zone is particularly high, thus allowing a bit more tolerance of other aspects of the setup (HTF direction, location etc).
- Temporarily change an Entry **chart to Chart confluence - medium lax** or **HTF zones - lax** to check for **opposing zones** which might get in the way of a trade. See **Look for the EASY money** below.
- Temporarily **Show RBD and DBR zone types** (the "inauthentic" ones) when using **Entry zone** presets (which default to only show DBD and RBR zones, the "authentic" ones). Or vice versa when using **Chart confluence** preset (which defaults to show ALL zone types).
- Temporarily change any chart to **draw zones wick-to-wick**, as recommended on very high quality, very tight Entry zones; or to see if price has gotten precariously close to the wick-to-wick high/low of an HTF zone.
- Temporarily disable **Merge close or overlapping zones** to see the individual zones in a "stack" of merged zones.
- Temporarily disable **Show invalidated zones** to only see zones on a chart that are still fresh and unspoiled.
- Enable **Proximity** or **New Zone alerts** on charts, so as to fire TradeStation alerts when NOT using RadarScreen. Disabling **Show invalidated zones** is recommended when using **Proximity Alerts** in charts.
- **Reset ALL of the above settings** back to Input values after messing around.

Changes made using **Change on this chart only** do not change the actual Input values (which only a user can do). They use the same settings "overrides" as the **Settings panel** (see the section **Settings panel** below). You will see the changes reflected in Settings panel and vice versa. **Change on this chart only** is merely an even faster way to change settings when you only want to change them on the current chart, and want to easily revert the changes after you are done.

SD Radar workspaces

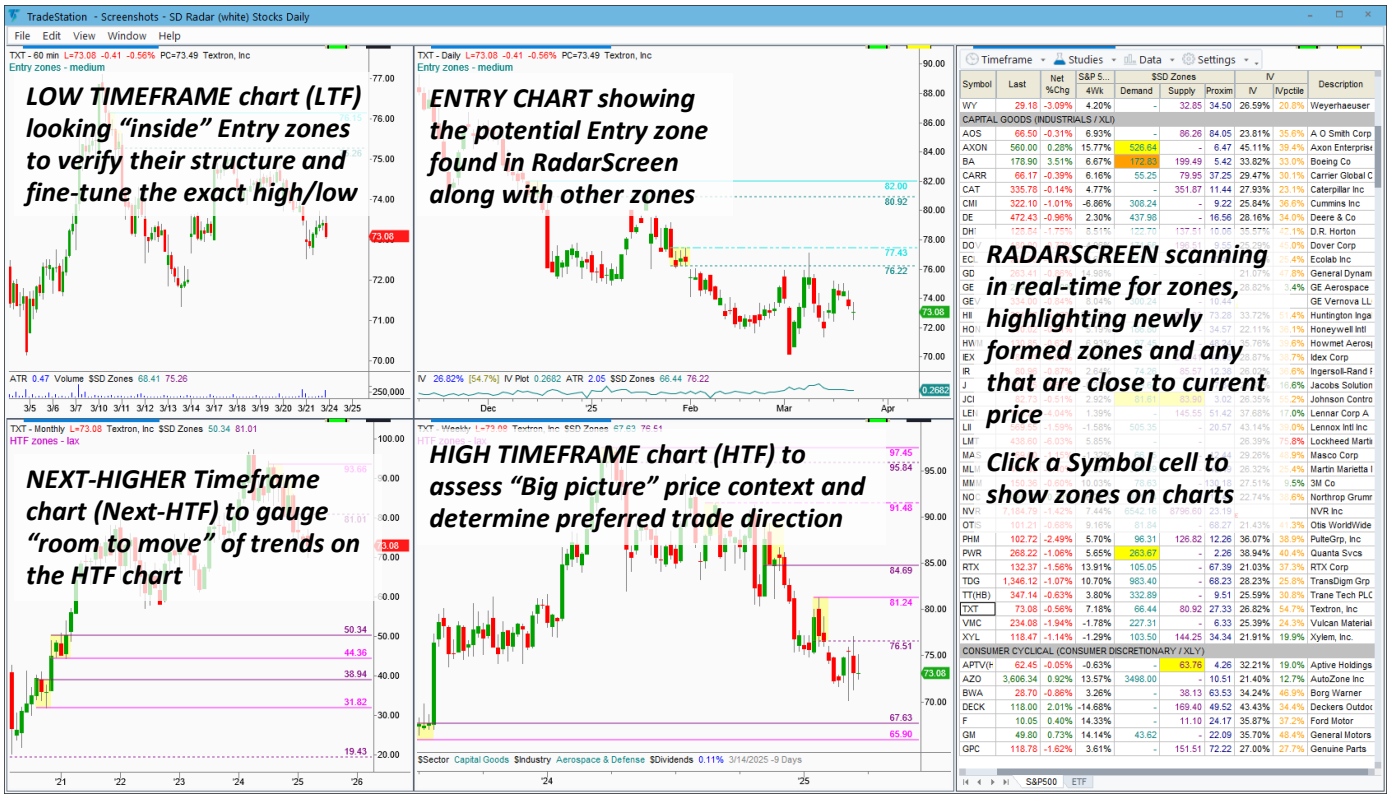
SD Zones comes with a collection of ready-to-use workspaces for stock/options and futures trading, dramatically speeding up the process of finding and qualifying potential trades using the Supply/Demand technique.

Each workspace contains a RadarScreen window with one or more pages (tabs) containing **symbol rows**, each row showing the **nearest demand and supply zones** for that symbol and interval and **highlighting** its Demand or Supply cell **in real-time** if price approaches a potentially tradable Entry zone or if a new zone forms.

Chart windows are linked to the symbol rows in RadarScreen to show the detected zones. Each workspace contains **Entry timeframe** charts, showing the zones found in RadarScreen; **Low timeframe** charts (**LTF**), to look "inside" the Entry zone; and **High Timeframe** charts (**HTF**) to assess "Big Picture" price context and determine preferred trade direction.

This allows you to jump directly to symbol rows in RadarScreen with highlighted Demand or Supply zones, and evaluate on the charts whether there is a potential trade setup. If so, you can further qualify and analyze the setup according to your trading rules. If not, you can move on to the next highlighted symbol row in RadarScreen – or wait for TradeStation to alert you (assuming TradeStation Alerts are enabled – See **Alerts and Notifications** below).

The descriptions and screenshots in this section further explain the features of the SD Radar workspaces.



SD Radar workspaces *Scan for potential Entry zones in* ***RadarScreen*** *and show the zones on* ***Entry charts*** *alongside* ***High Timeframe (HTF) charts*** *and* ***Low-Timeframe (LTF) charts*** *to help the trader review and qualify them as potential trade setups. This example shows the* ***SD Radar Stocks Daily*** *workspace. Other* ***Stocks*** *workspaces have similar layouts, but with different timeframes (intervals).* ***SD Radar Futures*** *workspaces have a slightly different layout. See* ***SD Radar Stocks workspaces*** *and* ***SD Radar Futures workspaces*** *below.*

Workspace names and categories

When downloading the SD Radar workspaces, you will find them grouped into folders and named according to categories:

Black or white background color
The workspaces come in **black** and **white** variants to accommodate different trader preferences.

Stocks or Futures
SD Radar Stocks workspaces for stock and options trading, containing the S&P500 list of stock symbols plus a list of 80 ETFs. They come in **Day**, **Swing**, **Daily** and **Weekly** variants (see below).

SD Radar Futures workspaces for futures trading, containing a list of 18 equity index, interest rate, commodity and currency futures. They come in **Day**, **Ticks**, **Swing**, and **XL Swing** variants (see below).

Trading style/timeframe
Futures Day workspaces scan for **day trades** in RadarScreen on 3, 5, 10, 15, 20 and 30 min intervals, with matching Entry charts. **Stocks Day** workspaces scan for 10 min trades in RadarScreen, but can be changed to scan for other intervals.

Futures Ticks workspaces scan in RadarScreen on **tick zones** with intervals adapted to each futures contract.

Futures Swing workspaces scan for **swing trades** in RadarScreen on 15, 20, 30, 60, 120 and 240 min intervals, with matching Entry charts. **Stocks Swing** workspaces scan for 60 min in RadarScreen, but can be changed to scan for other intervals.

XL Swing workspaces scan for **high-interval swing trades** in RadarScreen on 60, 120, 180, 240, 360, and 480 min intervals, with matching Entry charts.

Daily and **Weekly** workspaces (Stocks only) scan for stock/options **position trades** in RadarScreen using Daily/Weekly intervals, with matching Entry charts.

Futures workspaces scan for multiple intervals simultaneously in RadarScreen. Click the **Symbol** cell of a row in RadarScreen to show that symbol and interval in the top-left Entry chart, which is interval-linked to RadarScreen.

Stocks workspaces only scan for a single interval due to the large number of symbols in the stocks list. Change the RadarScreen interval for **All Symbols** in the Stocks workspaces to scan on different intervals. The interval of the main Entry chart is linked to the RadarScreen interval.

HTF Overlay workspaces
The **Futures** workspaces come in **HTF Overlay** variants, which show **magenta HTF zones** overlaying the **cyan Entry zones** on a single large Entry chart instead of multiple smaller Entry charts. In other workspaces, charts with **cyan zone lines** are Entry charts while charts with **magenta zone lines** are High Timeframe charts (HTF). The **Chart title** in the top-left corner of each chart also shows the colors of Entry and HTF zones, respectively.

Zone Criteria in SD Radar workspaces

All minute based SD Radar workspaces (Day, Swing, XL Swing) use the **Strict** Zone Criteria Preset by default (**SettingsPreset=3**). Ticks workspaces use the **Ticks** preset (**SettingsPreset=5**). Daily and Weekly workspaces use the **Medium** preset (**SettingsPreset=2**). See **Zone Criteria Preset** below.

Strict preset generally finds zones of higher confidence. **Medium** finds more potential entry zones from which to choose, including some (sometimes many) that may not qualify. **Extreme** finds very few zones, generally with excellent structure, but will often overlook some that turn out to be great trades, which would have been found with **Strict** or **Medium**. The **Ticks** preset finds fewer zones than **Strict** and is specifically tuned for tick zones.

The **Settings panel** can be used to change the Zone Criteria Preset in a given workspace with just a few mouse clicks, along with several other **Zone detection** and **Visual settings**. See **Quick start: Settings panel** above.

Screen size and workspace layout

SD Radar workspaces were designed for a **Full-HD monitor** (1920x1080 resolution) using **Windows 100% Scale setting**. Since monitors come in a range of sizes, from small 10" notebooks/tablets to 65" or larger TVs, AND in a wide range of resolutions, from 1280x720 (HD) up to 3840x2160 (UHD/4K), people use different Windows scale settings to ensure that text is readable (set in Windows under **Display settings > Scale & layout**).

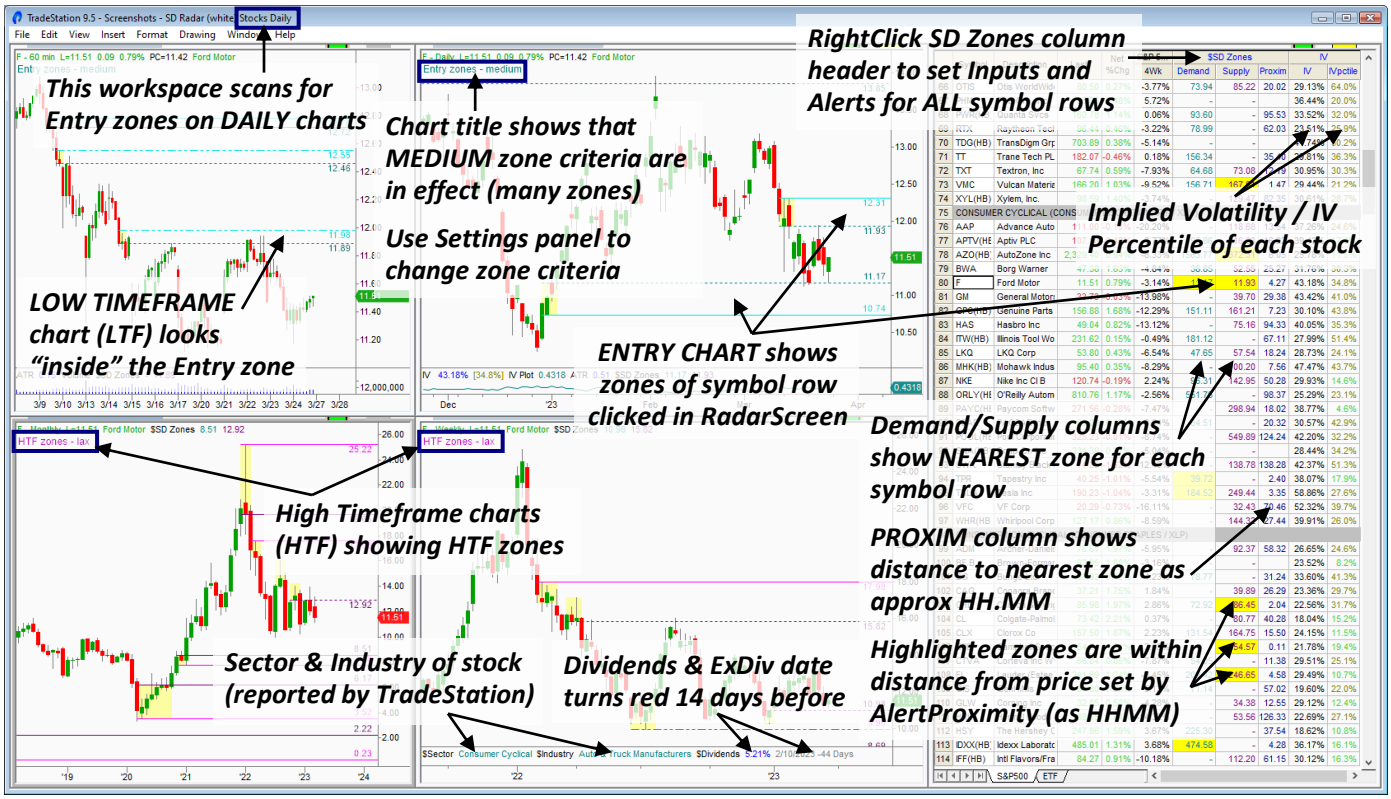
Consequently no workspace layout will fit all screens, and you may have to adjust the layout of the RadarScreen and chart windows in the SD Radar workspaces when you first start using them, EITHER to make sure you can see all the RadarScreen columns (in cases of resolutions **lower** than 1920x1080 or Windows scaling **higher** than 100%), OR to utilize any unused

blank space on the right side of the RadarScreen screen (in cases of resolutions **higher** than 1920x1080). The goal is always to provide as much chart space as possible while keeping all RadarScreen columns fully visible.

Once you have adjusted the workspaces, you can save them under a new name, OR just overwrite the original workspace files, since you can always download them again.

SD Radar Stocks workspaces

The Stocks workspaces all share the same basic layout, with a RadarScreen window on the right side, and four charts showing the **Entry timeframe**, **Low Timeframe (LTF)**, **High Timeframe (HTF)** and **Next-higher timeframe (Next-HTF)**. The main difference between the Stocks workspaces is the timeframe (interval) used in RadarScreen and the different charts.



SD Radar Stocks *workspaces (**Daily** in this screenshot) scan for potential entry zones in hundreds of stock/ETF symbols and highlight/alert **Demand** and **Supply** cells where price is close to a zone (**Proximity alert**) or when new zones are formed (**New Zone alert**). Zoom in to read descriptions of different screen elements.*

Additional stock/options info shown

S&P500 4-week Relative Strength - RadarScreen column. Prefer buying demand zones in **over-performing** stocks, shorting supply zones in **underperforming** stocks.

Beta - RadarScreen column. Choose high beta stocks for higher potential profit and more risk.

Implied Volatile (IV) & IV Percentile - RadarScreen columns in Daily/Weekly workspaces, status line on Daily charts. **IV Pctile** changes color when IV is low, medium or high relative to the last year. Prefer long options premium on **low IV Pctile** (e.g. long puts/calls, debit spreads); prefer short options premium on **high IV Pctile** (e.g. naked puts/calls, credit spreads); prefer IV neutral strategies on **medium IV Pctile** (e.g. ratio spreads).

*Note: TradeStation only provides Implied Volatility data on Daily and Weekly timeframes, which is why it is only shown in RadarScreen in the **Daily** and **Weekly** workspaces. It is shown in the Daily chart as well in ALL the Stocks workspaces.*

Implied Volatility Plot (historical IV) - plot on Daily charts. IV is more likely to **fall** when it is **near highs,** and **rise** when it is **near lows**. This can dramatically affect the extrinsic value of an options position, particularly around events like earnings.

Sector & Industry - status line on **60 min chart** in **Day** workspace; status line on **Weekly chart** in other Stocks workspaces. Shows Reuters classification (which is what TradeStation offers). The stock list in RadarScreen is grouped by the same sectors, with each sector heading listing the corresponding **S&P sector** and **SPDR Sector ETF** in parentheses (where one exists), such as **Consumer Cyclical (Consumer Discretionary / XLY)**. Use this to compare the stock to its Sector ETF on the

ETF page. Look for correlation between the stock, sector and broad market in your trades. Prefer buying demand zones in **strong sectors**, shorting supply zones in **weak sectors**, ideally when the sectors are ALSO approaching zones of the same type (demand or supply).

Dividends and ExDiv date - on status line of 60 min or Weekly charts. **Turns red** 14 days before ExDiv date. Avoid most options trades when **approaching ExDiv date** to avoid premature assignment and other gotcha situations.

*Note: In addition to the above, you also want to consider **average stock volume**, **options open interest**, **bid-ask spread** and **available options expirations** before entering options trades. Supply/demand and options is a fantastic match, but qualified trades require far more than just a good Entry zone. The Stocks workspaces are meant to help with that process.*

Stocks workspaces and download time

Between the **S&P500** and the **ETF** RadarScreen pages (tabs), the Stocks workspaces contain almost 600 symbol rows. Downloading all the data needed for these rows can take considerable time for TradeStation, depending on the computer, network connection, and the current load on TradeStation servers (evenings US Eastern time are generally worst). The **Stocks Swing** workspace can be particularly slow, as it needs over 1GB of intraday market data the first time it is loaded.

It is HIGHLY recommended that you give TradeStation all the time it needs to complete these downloads: Open **View menu > Download Scheduler** (in TS10 **Messages > Download Scheduler**) and wait for any tasks listed on the **Scheduled Items** tab to complete. Trying to perform ANY tasks in TradeStation while it is still downloading can sometimes cause the platform to hang or become unstable.

*Note: If any items scheduled for download say **Off peak** instead of **ASAP** in the **Priority** column, that means TradeStation is set to NOT download data immediately. In that case, or if the data download does not make progress, use the steps **Fixing TradeStation Download Scheduling** below. Also check the section **Speeding up TradeStation** below.*

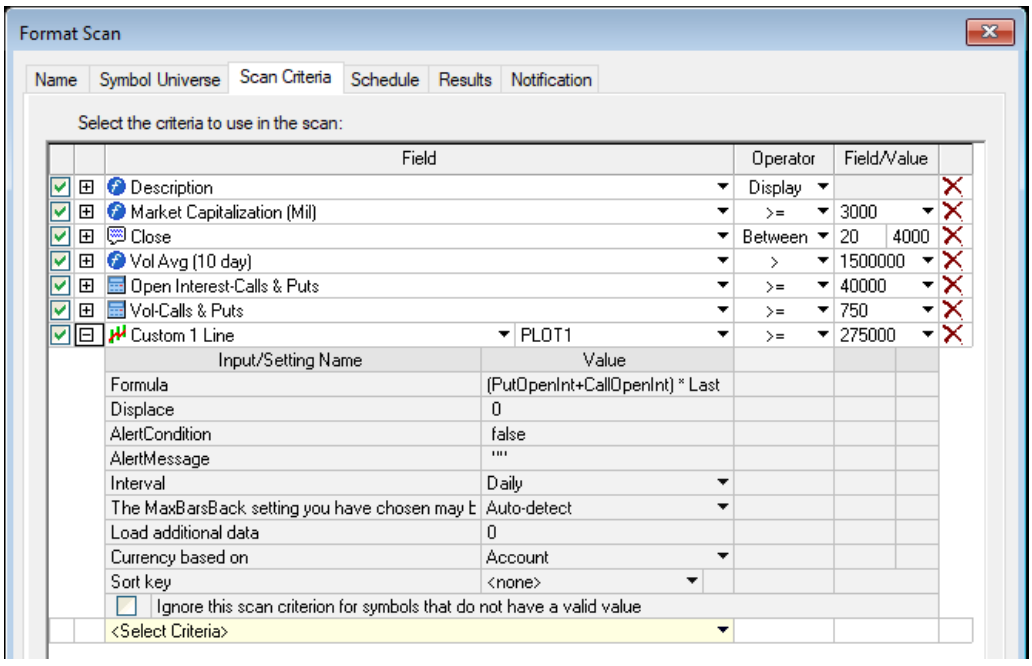
Once all required data is downloaded, the SD Zones indicator takes only a few seconds to calculate all the symbol rows, and it does NOT place a heavy load on TradeStation while it is running. Subsequent loading of the Stocks workspaces will be much faster since most of the required data is already saved in TradeStation's cache.

Note: Only open ONE SD Radar Stocks workspace at a time. RadarScreen only has limited memory capacity covering ALL RadarScreen windows in ALL workspaces. Multiple open Stocks workspaces might exhaust it, even on a fast computer with lots of memory.

Customizing the stock list

While the S&P500 list of stocks is a reasonable starting point, you may not want to trade them all. Trimming the list will speed up loading the workspaces. You can remove select stocks or entire sectors from the list.

You can also create an entirely new custom list using TradeStation scanner. The **Scan Criteria** shown below provide a good starting point, using **Market Cap**, **Stock price**, **Average Volume**, **Open Interest** and **Options volume**. It also includes a calculation to factor in Open Interest relative to the price of the stock, since the criterion for "high" Open Interest will be vastly different for a $20 stock than for a $2000 stock.



*TradeStation **Scan Criteria** which can be used to create a custom stock list for the SD Radar Stocks workspaces*

SD Radar Futures workspaces

The Futures workspaces all share the same basic layout, with a RadarScreen window on the right side, several **Entry Timeframe** charts in the center and two **High Timeframe (HTF)** charts on the left side. The main difference between the Futures workspaces is the intervals (timeframes) used in RadarScreen and the different charts.

Since the Futures workspaces scan for fewer symbols than the Stocks workspaces, they can scan each symbol on **multiple Entry intervals in RadarScreen** (using symbol rows with different intervals) without exhausting RadarScreen's capacity and memory limits. As delivered, the Futures workspaces contain 18 different equity Index, interest rate, commodity and currency futures symbols. **Day** workspaces scan for **3, 5, 10, 15, 20** and **30 min** Entry zones. **Swing** workspaces scan for **15, 20, 30, 60, 120** and **240 min** Entry zones. **XL Swing** workspaces scan for **60, 120, 180, 240, 360** and **480 min** Entry zones.

You can of course add other futures symbols and other intervals, or remove some, to fit your trading interest.

SD Radar Futures *workspaces (**Swing** in this screenshot) scan for potential entry zones on **multiple intervals** of each Futures symbol, and highlight/alert where price is close to a zone. Zoom in to read descriptions of different screen elements.*

Additional futures info shown

Tick size & Tick value - status line on each Entry chart. Shows the **"minimum move" (tick size)** of the futures contract (e.g. **0.25** for @ES, **0.01** for @CL, **0.1** for @GC, **0.5/32** for @TY) and the **dollar value** of each tick (e.g. **$12.50** for @ES, **$10** for @CL and @GC, **$15.63** for @TY). Use this to calculate the **risk-per-contract** of a given zone, based on its height and your desired stop buffer, or the dollar value of any other price move.

ATR & ATR$ - status line on each Entry chart. Shows the **average true range** as of the last completed bar and the corresponding **dollar value**. Uses 14 periods by default to calculate ATR, but can be changed through the inputs for these indicators. Use this to assess whether the height of a zone and your stop buffer are **realistic compared to current volatility**. SD Zones adjusts the height of Entry zones to at least 50% of ATR (at the time of its Leg-out) to avoid trading unrealistically narrow zones. Always apply your own common sense as well.

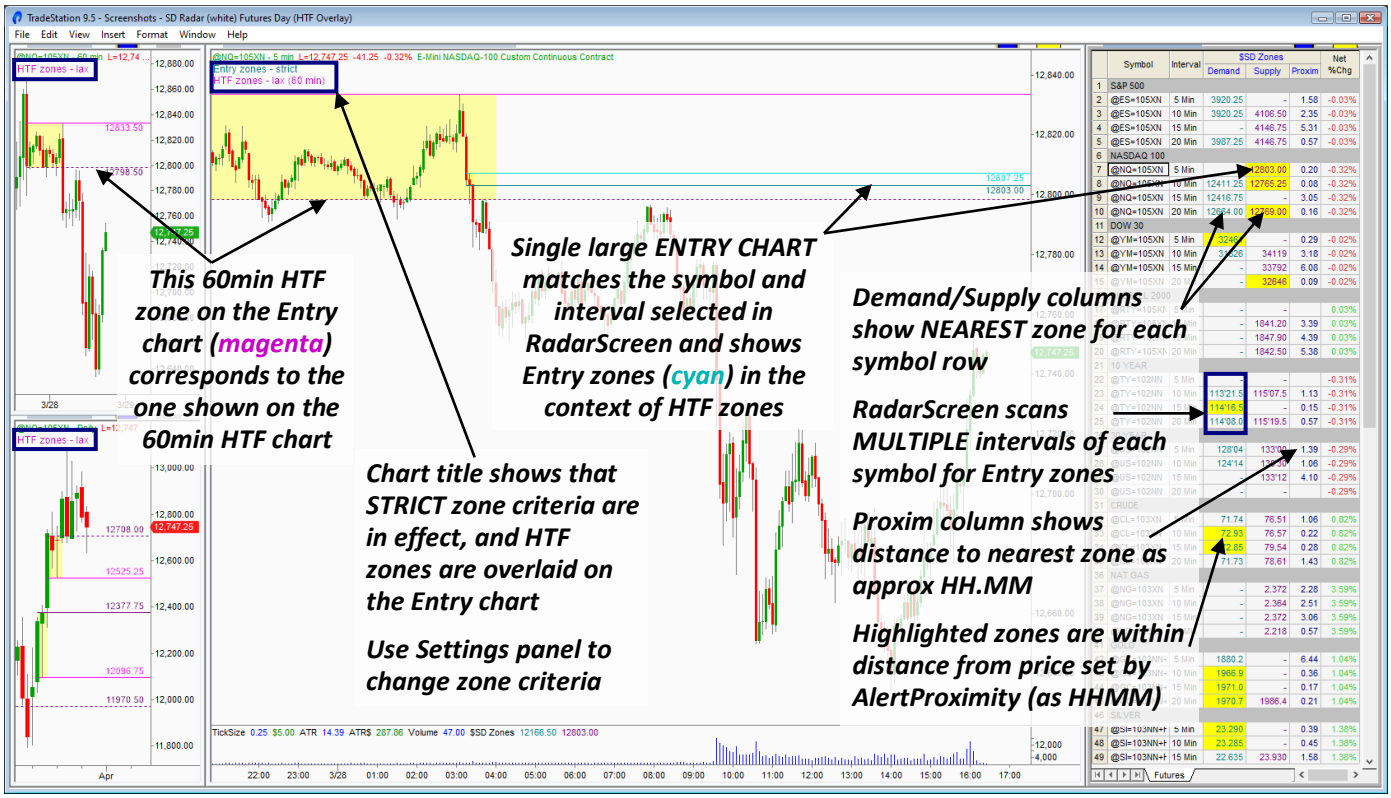
Custom Continuous Futures symbols

The Futures workspaces use TradeStation's **Custom Continuous Futures** feature. Hence symbols such as **@ES=105XN** instead of just **@ES**. This is necessary in supply/demand analysis to avoid prices in prior contract months from being shifted up/down to smooth out rollover gaps, as TradeStation otherwise does with the standard symbols @ES, @CL etc. The provided futures symbols and their specific rollover triggers were found to generally capture the most volume around rollovers (a rollover trigger is the string following the "=" in TradeStation Custom Futures symbols, such as @ES**=105XN**).

As always, you need to add the front month code to a given futures symbol in order to trade it (such as @ES**M23**=105XN or just @ES**M23**). If you are unsure of the front month of a given contract, an easy way to add it is **Format Symbol** (double click bars on chart) **> Settings tab > Symbol Lookup > Custom Futures tab > Use this symbol for trading**.

Futures HTF Overlay workspaces

The Futures workspaces come in so-called HTF Overlay variants, with HTF zones from the HTF chart superimposed (overlaid) on the Entry chart. This makes it easy for users who are new to supply/demand, or not experienced matching up separate Entry and HTF charts, to evaluate Entry zones in relation to the HTF zones and determine **preferred trade direction**. See **HTF zones overlaid on Entry charts** and **Entry zones vs High Timeframe zones** below.



SD Radar Futures (HTF Overlay) *workspaces use a single large Entry chart to show both Entry zones and HTF zones. Its Symbol and interval (timeframe) are linked to the symbol row selected in RadarScreen. A hidden High Timeframe symbol looks for HTF zones, which are shown overlaid on the Entry chart. Zoom in to read descriptions of different screen elements.*

Futures scalping workspace

For very active traders, TradeStation's unique volume charts combined with supply/demand zones can be a great tool for futures scalping. To this end a **Futures Scalping** workspace is included in the **Extras** folder. As with other Futures workspaces, it is delivered using **Strict** zone criteria (**SettingsPreset=3**), but can be easily changed with the **Settings panel**. See **Zone Criteria Preset** below and **Quick start: Settings panel** above.

The scalping workspace contains four volume based Entry charts (top row) to monitor the @ES, @NQ, @YM and @RTY Index futures, and linked HTF charts (bottom row). They can be changed to any symbols desired. The HTF charts default to 10 min, but can be changed as well. The Entry charts use different intervals (share/volume settings) to reflect the volume of each index. For example @ES has vastly more volume than @YM. Volume in each index will vary on any given day, and the share/volume settings should be adjusted to match. A share/volume setting that keeps ATR$ near $100 often works well (displayed in the lower status line) although this changes constantly with market volatility.

To some traders, scalping means capturing tiny price moves (as small as 1-2 ticks) often with an upside-down reward/risk. Scalps with supply/demand and volume charts are "real trades", using HTF charts to determine preferred direction, and using qualified entry zones and opposing zones on the Entry charts to select entries, targets and stops, and to manage trades. It is often advisable to take partial profits at 1:1 reward/risk and move stops to breakeven.

Note: This form of trading requires expert mastery of the Supply/Demand technique as well the TradeStation platform. As with ANY trades found using the Zones and its utility indicators and accompanying workspaces, the responsibility is entirely on YOU, the trader, to choose and qualify setups and to execute and manage trades. The tools are designed to help find potential trade setups, and nothing more.

How to use the SD Radar workspaces

The purpose of the SD Radar workspaces is to have the SD Zones indicator scan in real-time for supply/demand zones on a list of RadarScreen symbol rows and notify the user when one is approaching a potential entry zone OR when a new zone forms. See **Alerts and Notifications** below for how to control this scanning and the notification.

Once SD Zones has notified you of a symbol with a potential entry zone (either by highlighting the **Demand** or **Supply** cell in RadarScreen or with a TradeStation Alert) you click the corresponding **Symbol** cell to display the symbol in the linked chart windows.

Your job as a trader is now to qualify (or eliminate) the detected entry zone as a potential trade setup. Use the following general steps:

1. Review the quality of the suggested zone on the corresponding Entry timeframe chart. Look inside it using the LTF chart to inspect its structure and fine tune its exact height. You can also just change the Entry chart to 1/2 the Entry interval.
2. Review the HTF (High Timeframe) charts for "Big Picture" price context and preferred trade direction. Expect price to swing between opposing HTF zones and prefer entry zones in that direction (Demand zones on your Entry chart when HTF direction is UP, Supply zones when HTF direction is DOWN). See **Entry zones vs High Timeframe zones** below.
3. Consider distance from the entry zone to "opposing zones" on both Entry chart and HTF charts to make sure there is plenty of profit margin. Look for the "easy money", with no (or only few) chart features in the way of your trade.
4. Match the setup to the rules in your Trading Plan and your checklist.

All this requires understanding the Supply/Demand technique as well as general trading skills. Teaching of those is beyond this User Guide, although some tips are included under **Supply/Demand lessons** below.

Use RadarScreen as your candidate list

The **Demand** and **Supply cells** in RadarScreen are meant to be your trade setup candidate list. For each symbol and interval, they show the **nearest zones**, closest to current price given the zone criteria currently in effect (**Medium**, **Strict** or **Extreme** – see **Zone Criteria Preset** below).

The **Settings panel** can be used to change the zone criteria in a given workspace with just a few mouse clicks. See **Quick start: ZoneMenu** above. If a preset (say Strict) finds too many candidates at a given time, switch to a higher preset (say Extreme); if it finds too few candidates, switch to a lower preset (say Medium).

The **Proxim column** in RadarScreen estimates how soon price might reach a zone, **expressed in hours and minutes**. When that value comes within the threshold specified by the **AlertProximity** Input, the corresponding Demand or Supply cell is **highlighted** (yellow or blue depending on background color). AlertProximity can also be set in the **Settings panel** under **Alert when proximity to zone is within [HHMM]**. Enter a number using TradeStation's HHMM format, e.g. **0030** (30 mins) for day trading, as in the **Day** workspaces; or **0630** (6½ hours, one stock session) as in the **Stocks Daily** workspace. But you can adjust it to increase or decrease the number of highlighted zones at a given time.

Spend your time smartly

When looking for trades, start with zones of higher quality, close enough to current price that they are likely to meet entry (to fill). If you have too many candidates, you can tighten the net with stricter zone criteria OR lower AlertProximity. If you run out of candidates, you can widen your net with more lax zone criteria OR higher AlertProximity.

You will find that market dynamics dramatically impact how many quality zones are available on a given day or at a given time: On days and times with high institutional market participation, there will be plenty of zones from which to choose. On days/times with mostly retail participation, there will be only few zones. **This is to be EXPECTED and should be RESPECTED: Don't force trades when there are only mediocre setups!**

Invalidating and restoring zones

If a zone shown in RadarScreen doesn't fit your rules, it can be "invalidated" using the **ZoneMenu** shown when clicking a Demand or Supply cell in RadarScreen. That will "take it off the list" and update its lines on the charts to show the zone as invalidated. You can then proceed with the next highlighted zone in RadarScreen.

This feature helps using RadarScreen as your real-time trade candidate list: As you work your way down the list of highlighted zones, invalidating ones you don't want, you know that **any new highlighted Demand or Supply cells** are EITHER newly formed zones OR price approaching a zone you didn't already review. Remember, SD Zones works in real-time!

If you save the SD Radar workspace, any invalidated zones will be saved with it. If you don't want that, you can either NOT save the workspace, or you can select **Restore all zones in all symbols** from the ZoneMenu before saving.

See **Quick start: ZoneMenu** above.

Indicator Feature Descriptions

SD Zones has a very rich feature set to accommodate a broad spectrum of different trading styles and different ways to use the supply/demand technique. These features are accessed through a number of settings (so-called **Inputs** in TradeStation) which control the criteria it uses to scan for supply/demand zones, visual settings for how they are displayed on charts and in RadarScreen, how and when it notifies you of newly formed zones or when price approaches an existing zone that might be a potential trade. You change these Inputs using TradeStation's **Format Indicator > Inputs tab** (in TS10 **Customize Indicator > Inputs tab**).

In charts use **RightClick menu > Analysis Techniques > SD Zones > Format > Inputs tab** (in TS10 **RightClick menu > Studies > Edit Studies > SD Zones > Customize > Inputs tab**). A shortcut is to double-click one of the lines created by SD Zones and click **Yes**, then select the **Inputs tab** if it isn't already shown. Note that this will change Inputs ONLY for that chart window.

In RadarScreen RightClick the **SD Zones** column header and select **Format 'SD Zones' for All Symbols** (in TS 10 **RightClick menu > Studies > Edit 'SD Zones' for All Symbols**). You can also format just a single row in RadarScreen, but usually you want to format all symbol rows.

Instead of using inputs, many frequently used features can be changed using the **Settings panel**. See **Quick start: Settings panel** above for a screenshot of the Settings panel and how to use it.

See **Input settings (complete list)** towards the end of this guide for a list of ALL the Input settings.

Zone Criteria Preset

The first Input is **SettingsPreset**, which provides a single setting to control all the criteria for what type and quality of zones the indicator detects. It provides six different presets (0, 1, 2, 3, 4 or 5) with varying "strictness" of zone criteria; or you can enter 99 to program your own custom values of the individual Inputs that affect zone criteria.

Even if you do not learn any of SD Zones' features, you definitely want to know **SettingsPreset** and how and when and why to change it.

SettingsPreset accepts the following values:

0: Chart confluence (medium lax) (default) - finds zones suitable as chart confluence with other indicators or signals
1: HTF zones (lax) - finds any zone, as typically used for High Timeframe charts (HTF) and "opposing zones"
2: Entry zones (medium) - finds zones suitable as Entry zones, including many that may not qualify
3: Entry zones (strict) - finds only Entry zones of higher confidence, but may overlook some good zones
4: Entry zones (extreme) - finds only Entry zones of even higher confidence, but overlooks many good zones
5: Entry zones (ticks) - tuned specifically for tick-based charts, finds fewer zones than Preset3
6: Single-bar doji zones - finds only Entry zones with bases consisting of a single doji candle
99: Custom zone criteria - no preset, use Custom Zone Criteria inputs to program zone detection

Preset0 (Chart confluence - medium lax)
For general chart use and learning how SD Zones works. Consider zones only in confluence with other indicators or trade signals since Preset0 will find many zones that may not be suitable as Entry zones on their own. It includes both "authentic" zones (Drop-Base-Drop and Rally-Base-Rally) and "inauthentic" zones (Drop-Base-Rally and Rally-Base-Drop). The zones MUST be visually inspected to verify their structure and ensure they are still "fresh", meaning price hasn't revisited a zone since it was formed, or if it has, not very often and not very deep into the zone. See **Line styles and zone "freshness"** below. This is the default preset when first adding the SD Zones indicator to a new chart or RadarScreen.

Preset1 (HTF zones - lax)
Will find lots of zones, often merged (combined) when overlapping or close to each other. See **Merged zones** below. It includes "twilight zones" that may or may not be zones, but which we don't want to overlook, since they might still cause a reaction in price, particularly on lower timeframes when the zone is found on a higher timeframe. It is applicable mainly to HTF charts, used to assess "Big Picture" price context and determine preferred trade direction. HTF Zones are NOT to be considered as entry zones. Expect price to swing between HTF zones on HTF charts, and prefer trades on Entry charts in the direction of these moves. Only trade AGAINST this direction when price comes inside HTF zones of "Entry quality" that are still "fresh". See **Entry zones vs High Timeframe zones** and **Line styles and zone "freshness"** below.

Preset2/3/4/5 (Entry zones - medium/strict/extreme/ticks)
Used to scan for potential Entry zones in RadarScreen and show the results on charts. These presets filter out most of the lower probability zones found by Preset0 and Preset1 to let you focus on reviewing fewer zones of higher probability found across many RadarScreen symbol rows. These presets show only "authentic zones" (Drop-Base-Drop and Rally-Base-Rally)

which are usually higher probability than "inauthentic" ones (Drop-Base-Rally and Rally-Base-Drop). Start with Preset3 (strict), then move on to Preset2 (medium) only if you run out of candidates; or move to Preset4 (extreme) if you have too many candidates and want to start with the highest probability ones. Preset5 (ticks) is tuned for tick-based charts.

Preset6 (Single-bar doji zones)

Used by traders who specialize in zones whose bases consist of a single doji bar (generally considered very "basey") with leg-in and leg-out being extra "leggy". It finds only very few zones, but given the right location on the chart, these zones can have very high probability.

See **Choosing a SettingsPreset** below for further advice on choosing Presets.

Preset99 (Custom zone criteria)

No preset zone criteria will be loaded. Zone detection is programmed by the following **Custom Zone Criteria Inputs**:

Custom Zone Criteria Inputs

MinZoneBars (1)	min number of bars in base
MaxZoneBars (8)	max number of bars in base
MinZoneHeightSkipTicks (3)	min height of base in ticks - or skip zone
MinZoneHeightSkipATR (0.1)	min height of base relative to ATR - or skip zone
MinZoneHeightAdjATR (0.5)	min height of base relative to ATR - or adjust height
ATRLength (36)	number of bars for ATR calculation
MinLegoutSize (1.25)	min size of Leg-out (relative to height of base)
MinLeginSize (0.90)	min size of Leg-in (relative to height of base)
MinBaseBarScore (0)	min bar score for Base bars
HiConfBaseBarScore (-6)	high confidence score for Base bars
MinLegBarScore (2)	min bar score for Leg bars
HiConfLegBarScore (2)	high confidence score for leg bars
MinLegBar2Score (1)	min score for following Leg bars
MaxLegoutBarBreakATR (0.1)	max above/below base on Leg-out bar relative to ATR - or skip zone
MaxTouchBarsInvalid (6)	max bars touching into zone before it's invalidated
MaxTouchDepthInvalid (0.5)	how deep into zone before it's invalidated (relative to base height)
MinLegoutMove (0.75)	min size of move from base for first Leg bar (relative to base height)
MinLegBarMoveATR (1.00)	min bar move to continue a leg (relative to ATR)

You can change these Inputs individually, but you have to enter **SettingsPreset=99** in order for them to take effect. When **SettingsPreset** is any value OTHER than 99, these inputs are ignored, since Zone Criteria are controlled by the Preset.

Note: Regardless of which Preset you use, or if you use your own Custom Zone Criteria, you always need to manually qualify the zones found by the SD Zones indicator. They are suggestions ONLY, and SD Zones will often find zones that are not suitable for a trade. In particular do you need to always consider High Timeframe charts (HTF) to make sure the "Big Picture" price context and preferred trade direction are correct for any potential entry zones found on Entry Timeframe charts before you consider trading them.

Other zone criteria Inputs

The following Inputs override the **SettingsPreset**, allowing it to be customized regardless of the selected Preset.

ZoneTypesToShow (2)	0=Show ALL zone types 1=Show DBD & RBR only 2=Use SettingsPreset, if Preset99 show all zones
ZoneHeightRule (0)	1=Qualify and draw zones Wick-to-Body (find more zones) 2=Qualify and draw zones Wick-to-Wick (find fewer zones) 3=Qualify W2B / Draw W2W (more zones, draw as W2W) 4=Qualify W2B / Draw adaptively (more zones, draw adaptively) 0=use SettingsPreset
MaxDistMergeZones (0.25)	How close for zones to merge, relative to base height: 5.00=Max 0.00=Disable merging
AlmostTouchTolerance (0.25)	How close to zone for almost-touch, relative to base height: 1.00=Max 0.00=Ignore almost-touches

See **Zone types to show**, **Zone height rule**, **Merged zones** and **Touches and "almost touches"** below for more details.

Zone types to show: All zones or only "authentic" ones

The Input **ZoneTypesToShow** determines whether SD Zones will show ALL types of supply/demand zones (given the current Zone criteria) or only **Drop-Base-Drop** and **Rally-Base-Rally** zones (DBD and RBR).

When set to show **DBD & RBR only**, **Rally-Base-Drop** and **Drop-Base-Rally** zones (RBD and DBR) are EXCLUDED both on charts and in RadarScreen. This is the default setting with **SettingsPreset=2**, **3** and **4** (Entry zones - **Medium**, **Strict** and **Extreme**, respectively), as you will see in the SD Radar workspaces. See **Zone Criteria Preset** above.

Experienced supply/demand traders will know that RBD and DBR zones are usually not "authentic", meaning they are usually formed as a reaction to a previous zone or other chart feature (to the left) thus depleting the orders in that previous zone, rather than being signs of new accumulation/distribution in themselves. Hence they are often less reliable as Entry zones. Some RBD and DBR zones CAN be fine as Entry zones, but they require careful manual qualification.

DBD and RBR zones are ALWAYS authentic by definition: There can be no previous zones to the left of such zones, since you do not cross through Leg-ins (or through any bars) when looking for zones.

RBD and DBR zones (the "inauthentic" ones) are still important on High Timeframe (HTF) charts, where you do not want to overlook zones that might affect "Big Picture" price context and preferred trade direction. RBD and DBR zones on HTF charts can cause reversals on the Entry timeframe trend. Thus **Preset1** (HTF Zones - lax) still shows RBD and DBR zones.

RBD and DBR zones are also shown in **Preset0** (Chart confluence - medium lax) which should to be used in confluence with other trade signals. When previous zones are found (to the left) that cause new RBD/DBR zones to form, they are often displayed as combined (merged) zones on charts. See **Merged zones** below.

Some users may prefer to include RBD and DBR zones when looking for Entry zones, without having to resort to Custom Zone Criteria. Therefore **ZoneTypesToShow** can be set to override the Preset:

0: All zone types: show both DBD, RBR, RBD and DBR zones, regardless of SettingsPreset
1: DBD & RBR only: show only DBD and RBR zones, regardless of SettingsPreset
2: Use preset - show zones as determined by SettingsPreset. If SettingsPreset=99 (Custom Zone Criteria) show all zones

When changed from the default **ZoneTypesToShow=2** (Use preset), charts will extend their Chart Title to show **DBD & RBR only** or **All zone types** after the name of the chosen Preset. See **Zone Criteria Preset** above and **Chart Title: Show the Zone Criteria Preset in effect** below.

ZoneTypesToShow can be easily changed using the **Settings panel**, which also allows you to apply changes to ALL charts and/or RadarScreen rows with a single mouse click. See **Quick start: Settings panel** above.

Zone height rule: Wick-to-body or wick-to-wick

SD Zones usually draws zones from the "outside wick" of the zone's base to its "inside body". Performance measurements show that, statistically, this catches the most revisits with the smallest stop risk and the most winners.

But the best zones sometimes never fill when you draw them this way: Price may turn already at the **wick-to-wick** level of the zone (**W2W**), and your entry order has to "front-run" the zone in order to get filled. Naturally, such front-running increases the stop distance, and thus the risk, compared to classic **wick-to-body** zones (**W2B**). But depending on your strategy, your win rate, and your chosen targets, that higher risk may be preferable to missing the trade.

The **ZoneHeightRule** input allows zones to be qualified and/or drawn in other ways than the "classic" wick-to-body method. **ZoneHeightRule** accepts the following values:

1: use wick-to-body: use wick-to-body (W2B) to qualify the zone and draw its lines (find more zones)
2: use wick-to-wick: use wick-to-wick (W2W) to qualify the zone and draw its lines (find fewer zones)
3: qualify W2B, draw W2W: use W2B to qualify the zone, draw it as W2W (find more zones, draw them taller)
4: qualify W2B, draw adaptively: use W2B to qualify the zone, draw it as tall as the current zone criteria allow
0: use preset: use W2B or W2W as determined by SettingsPreset (currently W2B for all presets, but may change)

The reason for the different settings is that **no one way to draw zones is perfect in all cases:**

ZoneHeightRule=1 (wick-to-body)
This is how the SD Zones presets are tuned, using tens of thousands of zones over the last 20 years to maximize their performance. Because zones are shallower, they are more likely to qualify with a given set of zone criteria, since their Leg-ins and Leg-outs are larger relative to the zone height. Thus it finds more zones.

ZoneHeightRule=2 (wick-to-wick)
Makes the zone taller (increases its height), sometimes dramatically. Compared to **ZoneHeightRule=1** (wick-to-body), it finds very few zones. You should use more lax zone criteria to compensate, such as **SettingsPreset=2** or **0**, or even **Custom Zone Criteria** (**SettingsPreset=99** combined with manually tweaked Custom Zone Criteria inputs). See **Zone Criteria Preset** above.

ZoneHeightRule=3 (qualify W2B, draw W2W)
Will mostly find the same zones as the "classic" wick-to-body setting (**ZoneHeightRule=1**), but draws them at full wick-to-wick height – **even when such heights make little sense**, such as when a base candle has wicks extending far above/below the other base candles. You should use very strict zone criteria to compensate, such as **SettingsPreset=3** or **4**, or even **Custom Zone Criteria** (**SettingsPreset=99** combined with manually tweaked Custom Zone Criteria inputs. See **Zone Criteria Preset** above.

ZoneHeightRule=4 (qualify W2B, draw adaptively)
Similar to **ZoneHeightRule=3** in that it mostly finds the same zones as the "classic" wick-to-body setting (**ZoneHeightRule=1**), but draws them at full wick-to-wick height – **as long as their Leg-outs still qualify at that height with the current zone criteria**. If not, it reduces their height so that the zone still qualifies. That's the adaptive part.

ZoneHeightRule=4 (qualify W2B, draw adaptively) is recommended as the most sensible setting in most cases for those who want use wick-to-wick zones: It will find more zones from which to choose, draw them at wick-to-wick height, yet adapt their height to still be sensible. **ZoneHeightRule=2** (wick-to-wick) or **ZoneHeightRule=3** (qualify W2B, draw W2W) make sense if you have very specific rules and zone criteria which you know will give you the zones you want with wick-to-wick zone qualification and/or drawing.

When changed from the default **ZoneHeightRule=0** (Use preset), charts will extend their Chart Title to show the selected rule after the name of the chosen Preset. See **Zone Criteria Preset** above and **Chart Title: Show the Zone Criteria Preset in effect** below.

ZoneHeightRule can be easily changed using the **Settings panel**, which also allows you to apply changes to ALL charts and/or RadarScreen rows with a single mouse click. See **Quick start: Settings panel** above.

*Note: SD Zones shifts the OUTSIDE line of some small zones further out, so as to avoid unrealistically shallow zones relative to the surrounding volatility – and thus reduce the risk of stopout. By default, it increases the height of the zone to 50% of ATR at the time of leg-out (controllable with the input **MinZoneHeightAdjATR**). **ZoneHeightRule=2**, **3** and **4** will all shift the INSIDE line further inward, thus increasing the height of the zone. As a result, there is less need to shift the OUTSIDE line further out to fulfill the 50% ATR requirement. This is why you will see different OUTSIDE lines on some small zones when using different **ZoneHeightRule** settings. Some zones may break sooner because of this, which would have survived if the OUTSIDE line had been shifted further out. Of course that can be avoided with a higher **MinZoneHeightAdjATR** setting, but that in turn, will further increase the risk of the trade. Again, there is no perfect way to draw all zones in all cases.*

Touches and "almost touches"

As described under **Visual chart settings** below, zone lines on charts are updated in real-time as price revisits ("touches") a zone to show that it is no longer fresh: Inside zone lines turn from solid to dotted line style to show that it is **touched**. If price touches into a zone several times, or penetrates too deeply into the zone, it will be **invalidated**: Its Outside line will turn to dash-dot-dot line style. When a zone is broken completely (traded through), its lines will be truncated at the bar that broke it, and then removed on the next bar.

When price trades close to a zone without actually touching into it, an **"almost touch"** is registered. This too will cause the zone to be marked as no longer fresh and its inside line changed to dotted style. "Almost touches" do not count as strongly towards invalidating a zone as "actual touches", although they still count some.

The **AlmostTouchTolerance** input defines how close to a zone price must come to register as an "almost touch". A setting of 0.25 means price must come within 25% of the zone relative to its height. **AlmostTouchTolerance=0** (zero) causes "almost touches" to be ignored, so that price must actually touch or trade into a zone in order to register.

AlmostTouchTolerance can be easily changed using the **Settings panel**, which also allows you to apply changes to ALL charts and/or RadarScreen rows with a single mouse click. See **Quick start: Settings panel** above

Merged zones

SD Zones will merge zones that are close to each other – or when a new zone is formed wholly or partially inside a "further out" zone. Merged zones are shown with a single set of **Inside** and **Outside lines**, but have individual **Base hilites** (the rectangles highlighting their bases). Sometimes multiple zones can end up being merged, particularly on HTF charts.

How close zones must be in order to be merged is controlled with the **MaxDistMergeZones** Input (see **Other zone criteria Inputs** above). **SettingsPreset=1** (Lax, HTF) merges zones more aggressively than **SettingsPreset=2**, **3** and **4** (Medium, Strict, Extreme). Regardless of **SettingsPreset**, **MaxDistMergeZones** can be changed to override the preset. **MaxDistMergeZones=0** disables merging altogether.

MaxDistMergeZones can be easily changed using the **Settings panel**, which also allows you to apply changes to ALL charts and/or RadarScreen rows with a single mouse click. See **Quick start: Settings panel** above.

This way of showing merged zones takes a little getting used to, but is preferable to cluttering the chart with lines and labels for overlapping zones.

Ignore zones formed overnight

The Inputs **IgnoreZonesAfter** and **IgnoreZonesBefore** are used to tell SD Zones to ignore zones formed overnight. For example, **IgnoreZonesAfter=1600** and **IgnoreZonesBefore=0930** will tell it to only scan for zones formed during the US Stock market session (9:30am - 4pm ET) but NOT for zones formed during extended hours. **IgnoreZonesAfter=1615** and **IgnoreZonesBefore=0800** will tell SD Zones to scan for zones formed between the start of pre-markets (8am ET) and the settlement close (4:15pm ET) but NOT for zones formed overnight.

Default settings for these inputs are **IgnoreZonesAfter=2400** and **IgnoreZonesBefore=0000** which tell the indicator NOT to ignore any periods. In other words, zones will be detected regardless of what time they were formed.

The purpose of this setting is to avoid showing zones formed during periods with low institutional market presence which are often less reliable. However, be aware that overnight periods which have low volume in some markets (say, US Equity Index futures) may have high volume in other markets (say, Japanese Yen).

IgnoreZonesAfter and **IgnoreZonesBefore** use the **Time Zone** selected on the chart (**Local** or **Session**). Make sure to enter values accordingly: For example, stocks sessions open 0930 US Eastern Time, 0630 US Pacific Time.

TradeStation Regular Session vs Custom Sessions

SD Zones can only detect zones formed during time periods which are included in the TradeStation **session** used in the chart or the RadarSreen window (search for **Sessions** in TradeStation Help).

If you want to scan stocks for zones formed during pre- and post-markets you have to use TradeStation's **Custom Sessions** (typically the **24 Hour** custom session). The **Regular Session** for stocks does NOT include pre- and post-markets. Zones formed during extended hours in stocks are generally not recommended as trades because of the low institutional presence during those hours, but there are exceptions in very high volume stocks.

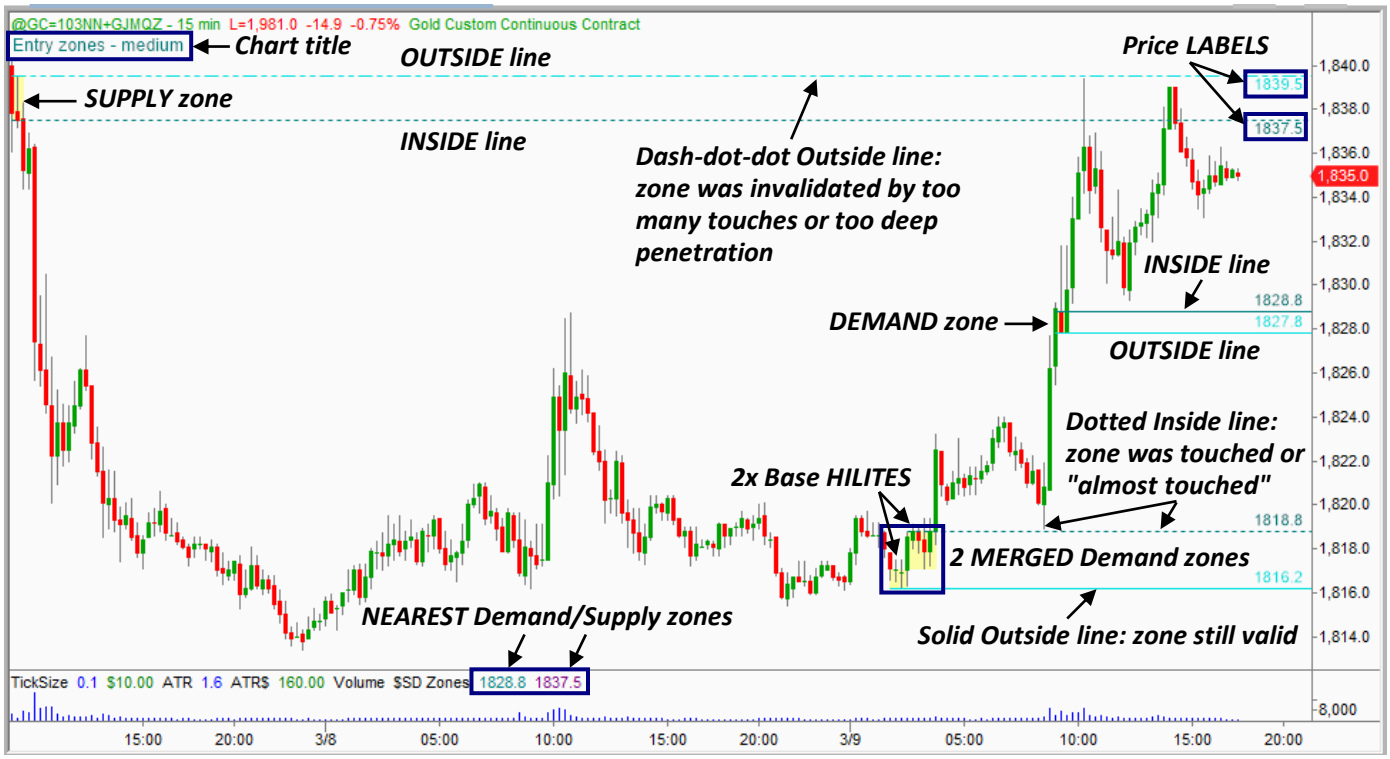
You can select TradeStation's **24 Hour** custom session to show extended hours trading activity in charts, RadarScreen or both, in combination with **IgnoreZonesAfter=1600** and **IgnoreZonesBefore=0930** (US Eastern Time) to prevent zones formed outside the **Regular Session** from being detected. That way, SD Zones will update **Proximity** (the RadarScreen **Proxim** column) during extended hours and fire **Proximity alerts**, but using only zones formed during the regular session. See **Proximity: Distance to nearest zone** and **Alerts and Notifications** below.

Note that zones formed during the Regular Session will be removed if broken by extended hours trading. Sometimes such zones could still work later, although their probability is generally lower. If you want to see zones formed during the Regular Session regardless of extended hours trading activity, you have to select Regular Session on the chart or RadarScreen.

IgnoreZonesAfter and **IgnoreZonesBefore** can be easily changed using the **Settings panel**, which also allows you to apply changes to ALL charts and/or RadarScreen rows with a single mouse click. See **Quick start: Settings panel** above.

Visual chart settings

The SD Zones indicator has a number of Inputs to control exactly how zones will appear on charts. Refer to the screenshot below for the various visual elements.



Zones are always shown using **Inside** and **Outside lines** which start at the zone's Leg-in bar and extend to the right edge of the chart window. The **Inside line** is closest to current price (upper line in demand zones, lower line in supply zones). The **Outside line** is furthest from current price (lower line in demand zones, upper line in supply zones). The color, transparency and thickness of these lines can be changed by Inputs.

Zone price Labels are displayed for the Inside and Outside lines, justified to the right edge of the chart window. Color, transparency, font size and location of these labels can be changed by Inputs. Or they can be disabled entirely.

The **Base** of each zone is highlighted with a semi-transparent rectangle to show the exact bars that make up the base. These **Hilites** are light yellow by default, but can be changed by Inputs. Or they can be disabled entirely.

The **Chart title** shows the Zone Criteria Preset in effect: **Chart confluence**, **HTF zones**, **Entry zones** or **Custom zone criteria**. The font size, color, transparency and location of this title can be changed by Inputs. Or it can be disabled entirely. It can also be used to show a **Custom Chart title** or to show the version of the SD Zones indicator.

Different line colors are used to distinguish **Entry zones** and **HTF zones**. By default **Cyan for Entry zones** and **Magenta for HTF zones**. Separate Chart titles are displayed when both Entry and HTF zones are shown on the same chart, with their colors matching those of their respective zone lines. See **HTF zones overlaid on Entry charts** below.

The default colors for **Zone lines**, **Zone price labels**, Base **hilites** and **Chart titles** are meant to be visible without detracting from the price bars themselves. If you find them hard to see or read, you can change their transparency and/or colors.

Visual chart settings Inputs

Following is the complete list of Visual chart settings Inputs that control zone appearance on charts. Values in parentheses are defaults, used when the indicator is first added to a chart:

ColorPreset (3)	0=Custom colors, 1=Black background, 2=White background, 3=Auto select
ShowChartTitle(True)	show SettingsPreset, indicator version or custom title in top-left corner
ShowHilites(True)	show rectangle highlighting base of zones
ShowLabels(True)	show price labels with zone lines
ShowInvalidatedZones (True)	show zones that were touched too often or too deep, but not yet broken
LabelRightJustify(True)	keep price labels at right edge of chart window
FontName("Arial")	font name for price labels and chart title. ""=TradeStation default font
LabelFontSize(8)	price label text font size
TitleFontSize(9)	chart title text font size

TitleShiftDown(2)	shift chart title down by x pixels
CustomChartTitle("")	custom chart title, ""=show SettingsPreset, "version"=show version
InsideLineWeight(0)	zone inside line weight 0-6, 0=thinnest
OutsideLineWeight(0)	zone outside line weight 0-6, 0=thinnest
ForceLinesOnChart1(False)	HTF overlay: draw zones from sub-graphs on main sub-graph
HideOnAdvCharts (True)	hide indicator on advanced chart types (Kagi, Renko, Range etc)

Custom colors (used ONLY when ColorPreset=0)

InsideLineColor(DarkCyan)	zone inside line color
OutsideLineColor(Cyan)	zone outside line color
InsLineTransparency(20)	zone inside line transparency
OutsLineTransparency(20)	zone outside line transparency
InsideLabelColor(SemiDarkCyan)	zone inside label color
OutsideLabelColor(Cyan)	zone outside label color
InsLabelTransparency(0)	zone inside label transparency
OutsLabelTransparency(0)	zone outside label transparency
HiliteColor(Yellow)	color of rectangle highlighting zone base
HiliteTransparency(80)	transparency of rectangle highlighting zone base
TitleColor(SemiDarkCyan)	chart title color
TitleTransparency(0)	chart title transparency
AlertBackgroundColor(DarkBlue)	RadarScreen background color to highlight symbols within proximity

Color Preset

The **ColorPreset** Input controls ALL the individual color and transparency settings for **Lines**, **Labels**, **Hilites** and **Chart Titles** as well as colors for the **Nearest Demand** and **Nearest Supply** "plots" displayed on the chart status line (see **Nearest Demand and Supply zones** below). **ColorPreset** accepts the following values:

0: Custom - no preset, use custom color and transparency Inputs and TradeStation plot colors
1: Black background - use preset colors optimized for black backgrounds (both charts & RadarScreen)
2: White background - use preset colors optimized for white backgrounds (both charts & RadarScreen)
3: Auto select - auto select ColorPreset1 on darker backgrounds, ColorPreset2 on brighter backgrounds

You can still change the individual color settings through the **Custom Color Inputs** (see above list) and through TradeStation's **Format Indicator > Color tab** (in TS10 **Customize Indicator > Color tab**), but you MUST set **ColorPreset=0** (zero) for them to take effect. When **ColorPreset** is any value OTHER than zero, the Custom Color Inputs are ignored since the ColorPreset controls color selections.

When using Color Presets (**ColorPreset**=**1**, **2** or **3**) the colors of zone lines will change based on the Zone Criteria Preset (**SettingsPreset**, see **Zone Criteria Preset** above): **SettingsPreset=1** will choose HTF zone colors (**magenta**). Other **SettingsPreset** values (**0, 2, 3, 4, 5, 99**) will choose Entry zone colors (**cyan**).

ColorPreset also controls colors in RadarScreen, including the **Demand**, **Supply** and **Proxim** columns as well as the **Proximity alert** and **New Zone alert** highlight colors. See **Alerts and Notifications** below. When ColorPreset is NOT in effect (**ColorPreset=0**) the highlight colors are controlled by the **ProximAlertColor** and **NewZoneAlertColor** Inputs.

TradeStation color names

Colors in TradeStation Inputs are numbers, but you usually enter them using one of the standard TradeStation color names: **Black, Blue, Cyan, Green, Magenta, Red, Yellow, White, DarkBlue, DarkCyan, DarkGreen, DarkMagenta, DarkRed, DarkBrown, DarkGray** or **LightGray**. Alternatively you can enter colors as **RGB(red-value, green-value, blue-value)** where each value is a number between 0 (darkest) and 255 (brightest). RGB(0,255,255) is **Cyan**, RGB(128,0,128) is **DarkMagenta**.

Nearest Demand and Supply zones

SD Zones constantly keeps track of the demand and supply zones which are nearest (closest) to current price, and displays them as "plots" on the status line of the chart for quick reference. By default they are placed on sub-graph 1 (the main graph of the chart window) but they can be moved to any sub-graph using the **Format Indicator > Scaling tab** (in TS10 **Customize Indicator > Scaling tab**). The **SD Radar** workspaces place them on sub-graph 2 along with Volume and other useful indicators for futures, stocks and options. The colors used to display these Demand and Supply zone "plots" can be changed using TradeStation's standard **Format Indicator > Color tab** (in TS10 **Customize Indicator > Color tab**). They are the same plots shown in RadarScreen **Demand** and **Supply** columns. Set **ColorPreset=0** for changes on the **Color tab** to take effect. When ColorPreset is NOT zero, it controls color selections.

Line styles and zone "freshness"

Once a zone has been detected, it will be drawn on charts and remain there until it is "broken" by price revisiting the zone and trading through its **Outside line**. The line styles are updated in real-time to show the zone's "freshness":

As supply/demand zones are later revisited by price ("touched" or "almost touched"), SD Zones will change the line style of **Inside lines** from solid to dotted, to show that the zone is no longer "fresh". If a zone is touched too often, or price penetrates too deeply into the zone, it will be **invalidated**, marked by its **Outside line** changing to a dash-dot-dot style.

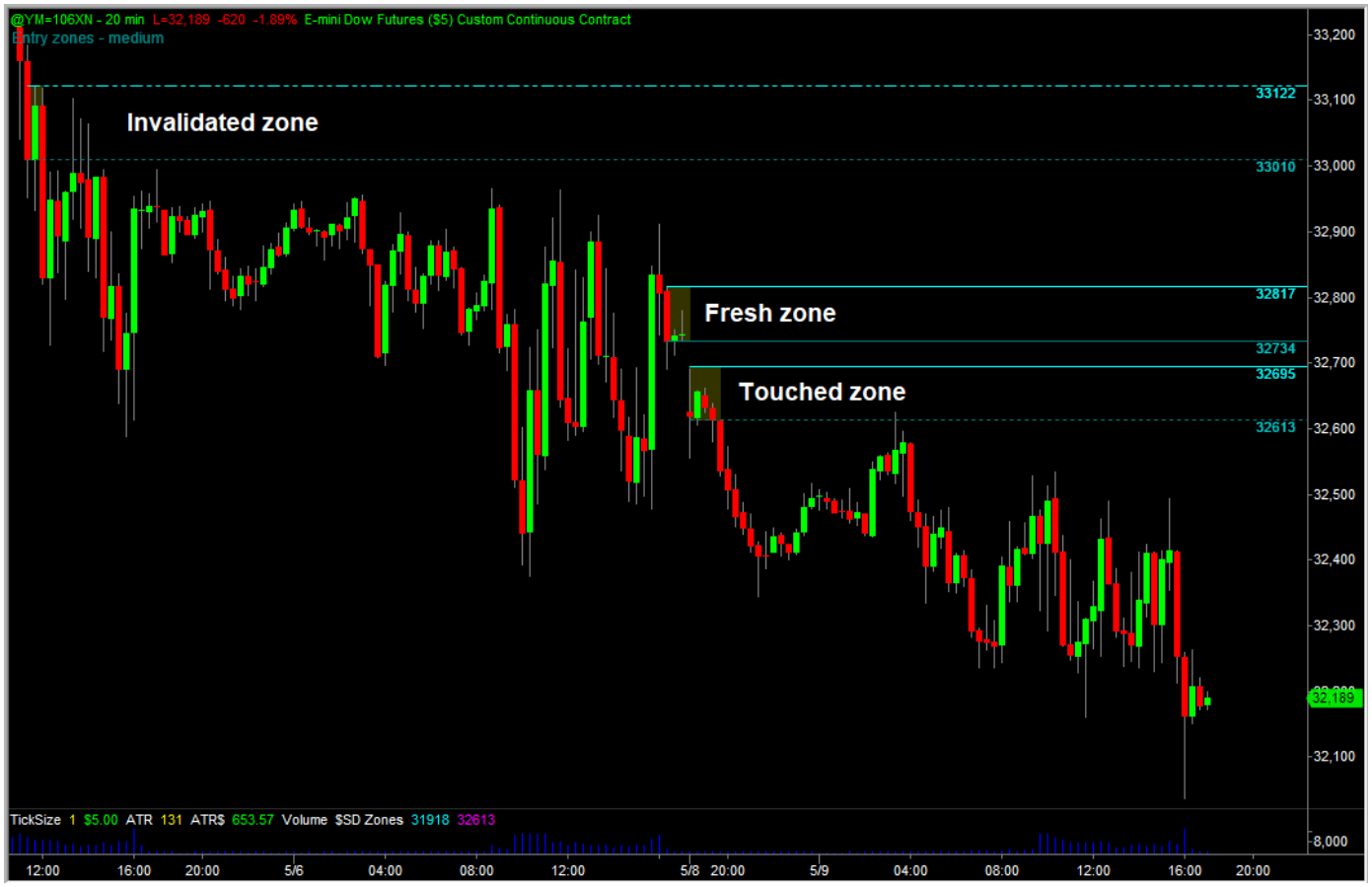
The dash-dot-dot outside line is SD Zones telling you that the zone should no longer be trusted as an entry zone!

If a zone is **broken** (traded though) its lines will be truncated at the bar which broke them, so that you can see what happened to it. The lines will then be removed at the close of the bar.

If you prefer to keep your charts clean and not show invalidated zones (ones with dash-dot-dot Outside lines) you can change the **ShowInvalidatedZones** Input to **False** on each chart, or change **Invalidated zones** in the **Settings panel**, which can be applied to all charts. See **Quick start: Settings panel** above. Invalidated and broken zones are never shown in RadarScreen, which is meant to only show potentially tradable Entry zones.

The number of touches and how deep a touch can penetrate into a zone before it is invalidated are controlled by the Zone Criteria, either **Zone Criteria Presets** or **Custom Zone Criteria** (see **Zone Criteria Preset** above):

Preset5 (Single-bar doji zones) invalidate on the 2nd touch or 5% into the zone
Preset3 & 4 (Entry zones - strict & extreme) invalidate on the 2nd touch or 10% into the zone
Preset2 (Entry zones - medium) invalidates on the 3rd touch or 35% into the zone
Preset1 (HTF zones - lax) invalidates on the 8th touch or 80% into the zone
Preset0 (Chart confluence - medium lax) invalidates on the 6th touch or 50% into the zone



*Line styles are used to indicate whether a zone is still **"fresh"** (has never been revisited since it was formed), been **touched** or "almost touched" (but may still be valid), or been **invalidated** (touched too many times or penetrated too deeply).*

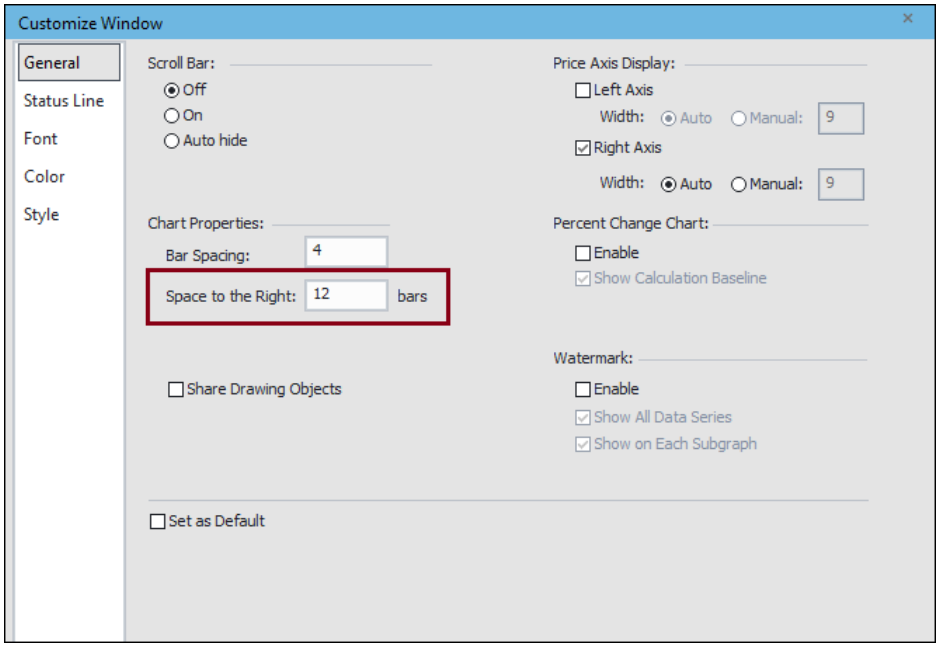
Right justify price labels on charts

Price labels for **Inside** and **Outside** zone lines are aligned to the right side of the chart window, which makes it easier to see the price levels without having to scroll the chart back to the base of the zone.

Unfortunately TradeStation does not provide an automatic way for price labels to be neatly kept at the right edge of the chart the same way as with Horizontal Lines or Fibonacci Retracement lines. So SD Zones constantly watches for changes to the chart window, such as new bars being added or the chart being scrolled up/down/left/right, and moves the price labels accordingly. SD Zones only performs this processing every 2 seconds, which is why you will see a small lag after scrolling the chart before the labels are moved.

If you do not want right-justified price labels, the feature can be disabled by setting the Input **LabelRightJustify=False**. Price labels will then be placed next to the Leg-out of each zone.

To make room for price labels at the right edge of the chart, you have to set TradeStation's **Space to the Right** setting to a reasonable number of bars under **RightClick menu > Format Window > General tab > Chart Properties** (in TS10 **RightClick menu > Settings > Window > General tab)**. A shortcut is to just double-click the chart background and select the **General tab**.



For narrowly spaced charts, 12 is a good number. For wider spaced charts, you may be able to go as low as 4. You don't want to change this all the time, so better choose a higher value from the start.

Chart Title: Show the Zone Criteria Preset in effect

SD Zones displays a **Chart Title** in the top left corner of the chart. The main purpose of this feature is to show the **Zone Criteria Preset** currently in effect, i.e. whether the chart displays **Entry Zones** or **HTF zones** (see **Zone Criteria Preset** above). This shows the "function" of each chart window.

If you do not want to show the Chart title, it can be disabled by setting the Input **ShowChartTitle=False**.

The Chart Title feature can also be used to display a custom title by entering a text string in the **CustomChartTitle** Input (in "quotation marks"). When left blank ("") the current **SettingsPreset** is displayed.

The Chart title is placed just below the chart's statusline (where TradeStation shows the symbol and other information). It can be shifted further down if desired, by entering a number of pixels for the Input **TitleShiftDown.**

Separate Chart titles are displayed when both Entry and HTF zones are shown on the same chart, with their colors matching those of their respective zone lines (**cyan** or **magenta**). See **Visual chart settings** above.

When using the **HTF Overlay feature** to show zones from a higher timeframe symbol (data series) overlaid on the Entry chart, the Chart title is automatically shifted down by one line. See **HTF zones overlaid on Entry charts** below.

Instead of using Inputs, the **Settings panel** can be used to enable/disable the Chart title, or to enter a custom title, AND to change the font and size of the Chart title. This also allows you to apply changes to ALL charts and/or RadarScreen rows with a single mouse click. See **Quick start: Settings panel** above.

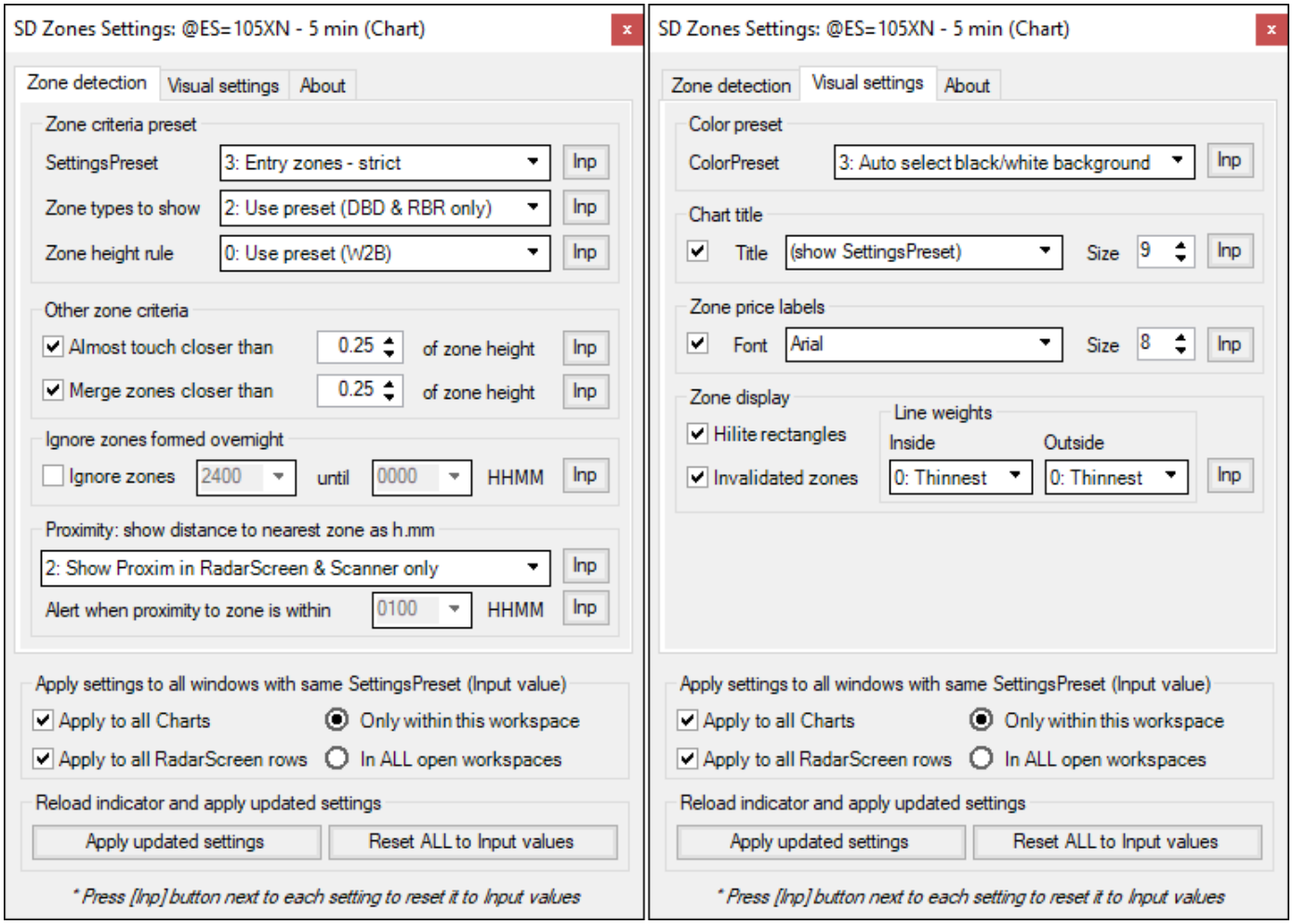
Settings panel

The SD Zones indicator contains a number **Inputs** to control the criteria it uses to scan for supply/demand zones, visual settings for how they are displayed on charts and in RadarScreen, and many other features. While using Inputs to change settings will be familiar to TradeStation users, it is not always the most convenient or intuitive. SD Zones has a **Settings panel**, which can be used instead to quickly show and change its most commonly used settings.

In charts, open Settings panel by **Ctrl + RightClicking the chart background**.

In RadarScreen, open Settings panel by **LeftClicking** any **Demand, Supply** or **Proxim cell** and select **Settings…** from the **ZoneMenu**. Unfortunately TradeStation does not allow studies to use RightClick in RadarScreen.

Settings panel is NOT available in TradeStation Scanner.



SD Zones Settings panel *provides fast access to the most commonly used SD Zones features. The* ***Zone detection tab*** *(left screenshot) controls zone criteria and related settings.* ***The Visual settings tab*** *(right screenshot) controls how zones are displayed on charts as well as the* ***Chart Title*** *in the top-left corner.* ***The About tab*** *(not shown here) shows the current* ***SD Zones version*** *and subscription status. The bottom section* ***Apply settings to all windows…*** *is shared between the tabs and controls how broadly to apply any changes. See* ***Quick start: Settings panel*** *above for more illustrations.*

Applying setting to ALL charts and RadarScreen rows

By default, changes made in the Settings panel are applied to ALL Charts and ALL RadarScreen rows **with the same SettingsPreset Input value**. This is so that all Entry charts and all RadarScreen rows (which usually use the same SettingsPreset) can be updated separately from High-Timeframe charts (HTF) and vice versa.

To apply changes ONLY to the charts or ONLY to the RadarScreen rows, toggle off the **Apply to all Charts** and/or **Apply to all RadarScreen rows** checkboxes. If both checkboxes are toggled off, changes are ONLY applied to the chart or RadarScreen row which opened Settings panel.

Also by default, changes are only applied to other charts and RadarScreen rows **within the same workspace**. To change this, select **In ALL open workspaces**.

Click the big **Apply updated settings** button to apply the changes.

Reverting individual settings to Input values

Changing settings through the Settings panel does NOT change Input values. There is no way in TradeStation for a study to change its own Input values. Only a user can change them.

Changes made with the Settings panel **"override" the Input values** in each chart and each RadarScreen row with the settings you selected. But those Input values remain and now become "default" settings to which you can easily revert.

The little **Inp** (Input) buttons to the right of each setting **revert just that setting to its Input value**. Use them when you want to reset individual changes which you previously made. The **Inp** buttons merely revert the selections within the Settings panel the same way as if you manually changed those settings. The reverted settings will be applied ONLY when you click **Apply updated settings**, along with any other settings currently selected in the Settings panel.

Reverting ALL settings to Input values

The big **Reset ALL to Input Values** button reverts ALL settings to their Input values. **It reloads immediately to apply the changes**. It ALSO resets other Charts and RadarScreen rows if the **Apply to all Charts** and/or **Apply to all RadarScreen rows** checkboxes are toggled on. Next time you open the Settings panel, those **Apply to…** checkboxes will have been reset to their defaults as well.

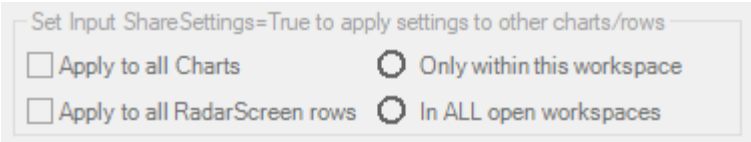
Reset ALL to Input Values is a fast way to "scratch all changes" in all charts and all RadarScreen rows and get them back in sync with each other, in case settings changes have been made in some of them but not in others.

Saving settings changes with the workspace

Changes made with the Settings panel **persist when TradeStation saves the workspace**. If you ever find that settings are missing when you later reload a workspace, it is a sign that TradeStation was in a corrupted state when the workspace was saved, causing it to dump the SD Zones data and revert to Input values. For this reason, it is recommended to use Input values as your "base settings" and use Settings panel mostly for temporary changes. If you want your workspaces to remain "untouched" with their original Input values, use **Reset ALL to Input Values** before saving the workspace.

ShareSettings input: Enabling/disabling all sharing

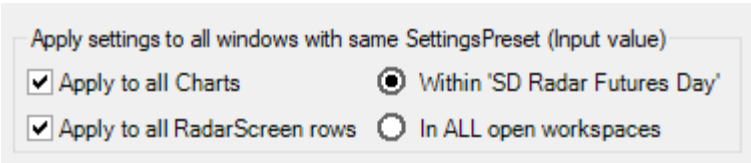
To completely disable sharing of settings with other charts and RadarScreen rows, change the **ShareSettings** input to **False**. You can still use Settings panel, but the **Apply to…** section will be grayed out (see screenshot). Other charts and RadarScreen rows with **ShareSettings=True** can still share settings, but any charts and RadarScreen rows with **ShareSettings= False** will not participate in the sharing.



ShareWorkspaceName input: Sharing settings within named groups

The **Only within this workspace** feature limits sharing of settings to other charts and RadarScreen rows within the same workspace. Unfortunately the ability to distinguish workspaces only exists in TradeStation 10. In TS9.5, SD Zones uses **In ALL open workspaces** instead.

You can enter a workspace name (or any name you want) in the **ShareWorkspaceName** input, thus allowing you to limit sharing of settings to charts and RadarScreen rows with the same name. The **Only within this workspace** selection will change to **Within 'your group name'** (see screenshot).



While the **ShareWorkspaceName** input exists mostly for TradeStation 9.5 users, it can also be useful for TS10 users who want to further control how charts and RadarScreen rows are grouped. **ANY chart and RadarScreen row in ANY workspace** with the same **ShareWorkspaceName** input value will become a group, allowing them to share settings changes separate from other charts and RadarScreen rows.

Leaving **ShareWorkspaceName** blank will use the actual TradeStation workspace name, which is only supported in TS10.

*Note: When you copy/paste chart or RadarScreen windows containing SD Zones, all their Input values will be copied to the new windows. Make sure to clear or change **ShareWorkspaceName** in the copied windows so you do not apply future settings changes to them which you didn't intend. Keep **ShareWorkspaceName** blank to avoid this gotcha.*

Proximity: Distance to nearest zone

The **Proxim column** (in RadarScreen) and the **Proxim plot** (in charts) show the distance from current price to the nearest supply/demand zone **estimated in hours and minutes**. It is based on current price volatility, and assumes price continues straight up or down at the current speed to the nearest zone. It is just an estimate, since price rarely moves straight up or down. But sometimes it does, and **Proximity** gives a good indication of how close a symbol is to its nearest zone.

It is particularly useful in RadarScreen. You can sort on the **Proxim column** using RadarScreen's **Format Page > Sort tab** (in TS10 **RightClick menu > Settings > Sort tab**), or just double-click the **Proxim** column header to sort by Proximity in ascending or descending order. This can be useful on long lists of stock symbols.

However, the most powerful use of this feature is **Proximity Alerts**, where SD Zones **highlights Demand or Supply cells in RadarScreen which are close to current price** ("within proximity") and optionally **fires TradeStation alerts**. See **Alerts and Notifications** below.

On charts, the **Proxim plot** (if enabled) shows on the status line after the plots for **Nearest Demand** and **Nearest Supply**. Like those, no actual Proximity graph is plotted, just the number on the status line. See **Quick start: Chart Analysis** above.

By default, the color of the **Proxim** column/plot is controlled by the **ColorPreset** Input: Yellow on back backgrounds, blue on white backgrounds. As with the other plots (Nearest Demand, Nearest Supply) its color can be changed using TradeStation's **Format Indicator > Color tab** (in TS10 **Customize Indicator > Color tab**) after setting the input **ColorPreset=0** (custom colors). When ColorPreset is NOT zero, it controls color selections. See **Color Preset** above.

ShowProximPlot input: Show or hide the Proxim column/plot

You can show or hide the **Proxim** column in RadarScreen (or the **Proxim** plot in charts) by changing the **ShowProximPlot** Input. RadarScreen will continue displaying an empty **Proxim** column unless you hide it with **Show/Hide Plots** (RightClick any **SD Zones** column). RadarScreen always creates columns for all plots in an indicator, even when they are empty.

Since you often want to show **Proxim** in RadarScreen, but not in charts, the **ShowProximPlot** Input has an **Auto** feature. Values for the **ShowProximPlot** input are:

0: Disabled - **never** show the **Proxim** column/plot
1: Enabled - **always** show the **Proxim** column/plot (in charts, RadarScreen and Scanner)
2: Auto - **only** show the **Proxim** column in RadarScreen and Scanner (**not** in charts)

Proximity can also be enabled/disabled using the **Settings panel**, along with **AlertProximity** to control when **Proximity alerts** are triggered (see **Alerts and Notifications** below). Settings panel allows you to apply changes to ALL charts and/or RadarScreen rows with a single mouse click. See **Quick start: Settings panel** above.

***Proxim** column in RadarScreen estimates proximity in hours and minutes to nearest zone. Can be sorted (like here) by double-clicking the **Proxim** column header.*

Symbol	Last	Net %Chg	S&P 5... 4Wk	$SD Zones Demand	$SD Zones Supply	$SD Zones Proxim	IV IV	IV IVpctile	Description
ENERGY (ENERGY / XLE)									
XOM	113.85	0.08%	13.24%	-	114.71	2.40	24.41%	50.2%	Exxon Mobil
OXY	47.67	0.87%	5.95%	-	48.48	3.56	31.33%	62.8%	Occidental Petro Corp
COP	100.53	1.18%	11.21%	97.00	102.46	4.32	30.16%	56.6%	ConocoPhillips
MPC	146.00	-0.11%	0.91%	109.85	152.70	8.11	33.06%	36.9%	Marathon Petro Corp
EQT	52.77	2.15%	4.18%	49.66	-	9.13	40.50%	55.8%	EQT Corp
DVN	35.37	0.74%	9.21%	-	37.31	10.00	35.85%	59.7%	Devon Energy
FANG	154.98	1.27%	5.03%	145.80	163.84	10.49	33.50%	64.3%	Diamondback Energy Inc
OKE	98.01	-0.44%	8.39%	75.47	104.53	14.17	29.24%	61.5%	Oneok Inc
CTRA	28.88	2.54%	10.25%	26.93	-	14.27	29.40%	27.5%	Coterra Energy Inc
EOG	122.57	-0.82%	2.97%	-	130.61	15.24	29.57%	57.2%	EOG Resources
APA	20.11	0.40%	-6.74%	-	22.86	19.28	43.85%	29.9%	APA Corp
VLO	132.03	-0.69%	5.87%	-	147.82	20.44	35.69%	35.4%	Valero Energy
HAL	25.00	-0.87%	3.87%	-	27.80	22.40	35.43%	56.0%	Halliburton Co
HES	152.82	1.58%	10.61%	136.39	-	30.39	23.36%	17.9%	Hess Corporation
SLB	41.13	-0.72%	6.92%	-	47.54	34.44	30.58%	43.8%	Schlumberger Ltd
PSX	128.41	-0.60%	8.71%	-	150.70	36.07	30.86%	53.3%	Phillips 66
BKR	43.70	-0.41%	1.89%	32.14	-	52.53	32.45%	51.8%	Baker Hughes a GE Co Cl A
CVX	160.80	1.31%	10.09%	-	-		20.94%	39.6%	Chevron Corporation

S&P500 ETF

Alerts and Notifications

One of the most powerful features of SD Zones is its ability to monitor many different markets in real-time, potentially on multiple intervals, and alert the user when a possible trade opportunity is coming up, either in the form of a newly created zone (so-called **New Zone alerts**) or by price approaching an existing zone (so-called **Proximity alerts**).

New Zone alerts (if shown) will trigger anytime a new zone forms on charts or in RadarScreen.

Proximity alerts (if shown) work in tandem with the **Proximity** feature (described above): SD Zones monitors current price and shows the distance to the nearest supply/demand zone in the RadarScreen **Proxim column** (**Proxim plot** on charts) **estimated in hours and minutes**. **Proximity alerts** will trigger when price comes "within proximity" of a zone, meaning **Proxim** falls below the threshold entered in the **AlertProximity Input.**

AlertProximity: How close zones must be to trigger a Proximity alert

The **AlertProximity** Input controls how close price must be to a zone for it to trigger a Proximity alert. It is **the threshold at which a zone is considered "within proximity" of current price**. You enter it in **TradeStation's HHMM format**.

The higher the AlertProximity value, the more zones will be "within proximity" and the more alerts you will receive. Too high an AlertProximity value and ALL zones will trigger. Enter a suitable threshold for your style of trading, such as 0030 (30 minutes) for day trading, or 0630 (6½ hours) for position trading.

You can enter a value larger than 24 hours, such as 4800. Just be aware that it counts "session hours", not "calendar hours". In futures (which trade 23 hours a day, 115 hours a week) 4800 will trigger alerts for zones up to two days away, but for stocks (which trade 6½ hours a day, 32½ hours a week) it will trigger alerts for all zones as far away as a week.

Changing AlertProximity

To update the **AlertProximity** Input in RadarScreen, RightClick the **SD Zones** column header and select **Format 'SD Zones' for All Symbols > Inputs tab** (in TS10 **Studies > Edit 'SD Zones' for All Symbols > Inputs tab**). This will update Inputs for ALL rows on that RadarScreen page.

To update the **AlertProximity** Input in charts, use the **Format Indicator > Inputs tab** (in TS10 **Customize Indicator > Inputs tab**). A shortcut is to double-click a zone line and click **Yes**, then select the **Inputs tab**.

On the Inputs tab, **AlertProximity** is in the **ALERTS & NOTIFICATIONS** group. Enter a HHMM number.

Changing AlertProximity with Settings panel

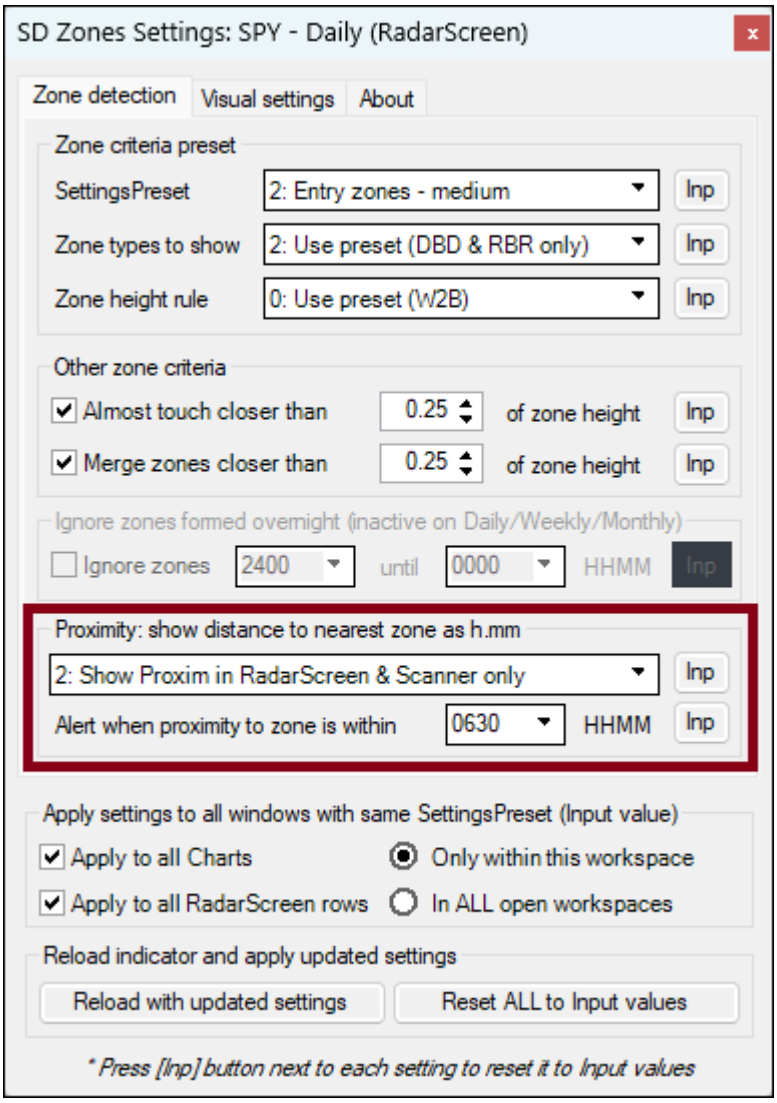
AlertProximity can also be changed using **Settings panel**, which is often more convenient, particularly for temporary changes to increase or decrease the number of highlighted zones in RadarScreen.

To open Settings panel in RadarScreen, **LeftClick** any SD Zones cell (**Demand**, **Supply** or **Proxim)** and select **Settings…** from the **ZoneMenu**. In charts, **Ctrl + RightClick** the chart background.

In the Settings panel, **AlertProximity** is found in **Zone detection tab > Alert when proximity to zone is within [HHMM]**.

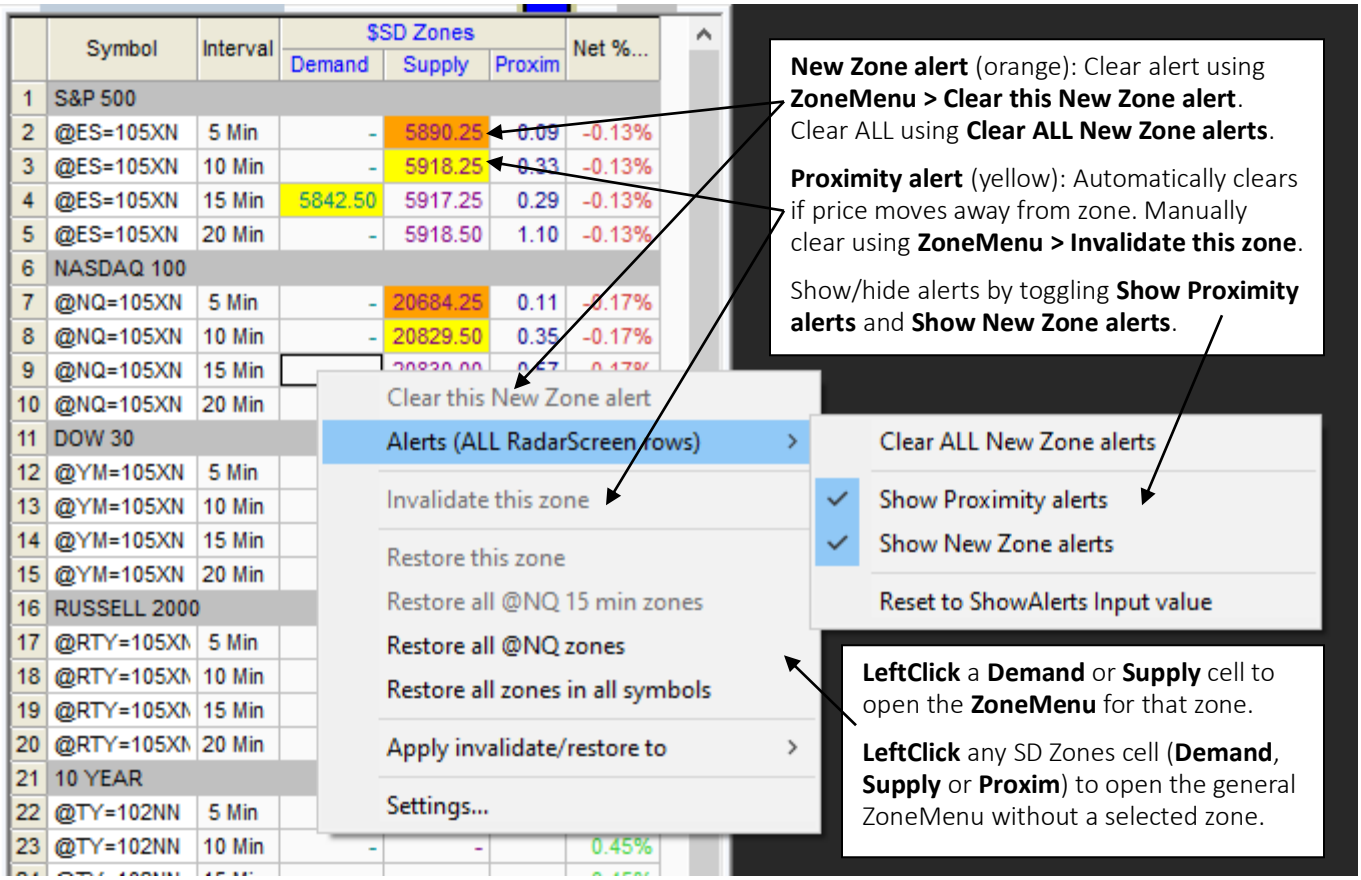
Make sure the **Proximity plot/column is shown**. Otherwise the **AlertProximity** field is grayed out.

Settings panel allows changes to be applied to ALL charts and/or RadarScreen rows. It does NOT update the actual Input values, but merely overrides them, and allows settings to be reset back to their Input values. See **Quick start: Settings panel** above.



Displaying alerts in RadarScreen

While SD Zones alerts can also trigger the firing of TradeStation alerts in charts, they are most powerful in RadarScreen, where hundreds of symbol rows can scan for zones and show real-time notifications for **New Zone alerts** and **Proximity alerts** by **highlighting the background color of Demand or Supply cells**.



New Zone alerts: DarkGray (when using black backgrounds) or **Orange** (when using white backgrounds) tells you that a new zone was formed in that symbol.

Proximity alerts: DarkBlue (when using black backgrounds) or **Yellow** (when using white backgrounds) tells you that a zone is "within proximity", meaning **Proxim** has come within the threshold specified by the **AlertProximity** Input.

The colors can be changed by setting **ColorPreset=0** and changing the **NewZoneAlertColor** and **ProximAlertColor** Inputs.

Clearing alerts in RadarScreen

New Zone alerts stay highlighted until you manually clear them: LeftClick the highlighted Demand/Supply cell to show the **ZoneMenu** and select **Clear this New Zone alert** (you have to LeftClick since RadarScreen doesn't support RightClick).

To clear ALL New Zone alerts (say, if you come back to the computer and see a slew of orange alerts), LeftClick any SD Zones cell (**Demand**, **Supply** or **Proxim**) and select **Alerts (ALL RadarScreen rows) > Clear ALL New Zone alerts**.

Proximity alerts are automatically cleared when price moves away from a zone, outside the **AlertProximity** threshold. You can clear Proximity alerts by **manually invalidating a zone** using **ZoneMenu**: LeftClick the highlighted Demand/Supply cell to show the **ZoneMenu** and select **Invalidate this zone**, which takes it off the RadarScreen list. You can use **Restore this zone** later if you want to give it a second look. See **Invalidating and restoring zones** under **Quick start: ZoneMenu** above.

Both New Zone alerts and Proximity alerts are **automatically cleared if the zone is broken or invalidated**. Once cleared, there is no way to show the New Zone alert again for a given zone since it is no longer a new zone. Proximity alerts will trigger again if price comes "within proximity" of the zone later.

Showing/hiding alerts in RadarScreen

The easiest way to show/hide alerts in RadarScreen (i.e. enable/disable them) is using the **ZoneMenu:** LeftClick any SD Zones cell (**Demand**, **Supply** or **Proxim**) and select **Alerts (ALL RadarScreen rows) > Show Proximity alerts** and/or **Show New Zone alerts** (see screenshot above). This will show or hide the selected alerts for ALL RadarScreen rows within the current workspace, but NOT affect any other workspaces NOR any charts. Both Proximity and New Zone alerts are shown by default unless you toggle them off.

Showing/hiding alerts using the ShowAlerts Input

To show/hide alerts for individual RadarScreen rows, or a range of rows, use the **ShowAlerts** Input: Select a **Demand** or **Supply** cell, or a range of cells while holding the Shift key, then use **RightClick > Format 'SD Zones' for Selected Symbols > Inputs tab** (in TS10 **RightClick > Studies > Customize 'SD Zones' for Selected Symbols > Inputs tab**).

On the Inputs tab, **ShowAlerts** is in the **ALERTS & NOTIFICATIONS** group. It accepts the following values:

0=NO alerts/notifications: No highlights will be shown in RadarScreen, no TradeStation alerts will fire
1=Proximity alerts: Proximity alerts will be highlighted in RadarScreen and fire as TradeStation alerts
2=New Zone alerts: New Zone alerts will be highlighted in RadarScreen and fire as TradeStation alerts
3=BOTH Proximity and New Zone alerts: Both Proximity and New Zone alerts will be highlighted in RS and fire as TS alerts
9=Charts NO alerts, RadarScreen BOTH alerts: NO alerts will trigger in charts, BOTH alerts will trigger in RadarScreen

Default is 9, which automatically shows both **Proximity** and **New Zone alerts in** RadarScreen, but NO alerts in charts.

Enabling TradeStation Alerts

Enabling alerts in SD Zones, either using the **ShowAlerts** Input or the **ZoneMenu** as described above, will show the alerted zones as highlighted **Demand** and **Supply** cells in RadarScreen AND optionally fire TradeStation alerts **IF enabled in TradeStation**. This allows audible alerts and emails/text messages. See **Configuring TradeStation Alerts** below.

To enable TradeStation alerts in RadarScreen, RightClick the **SD Zones** column header and select **Alert > Enable Alert Continuously**. This will enable TradeStation alerts for ALL symbol rows on the selected RadarScreen page. Proximity alerts already highlighted will fire immediately. Subsequent alerts will fire when new zones are formed or when price comes "within proximity" of existing zones.

TradeStation alerts will fire only once for each **New Zone** or **Proximity alert**. Proximity alerts will fire again if price moves away from the zone and comes back "within proximity" later.

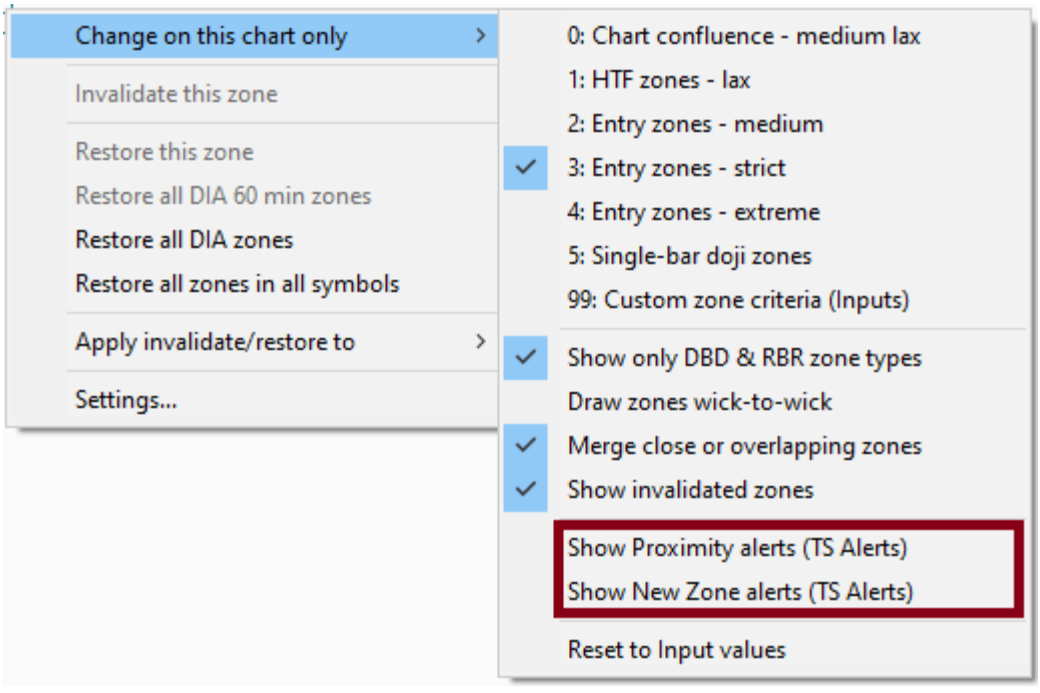
Showing/hiding alerts in charts (TradeStation alerts)

SD Zones alerts can also trigger in charts instead of RadarScreen. Alerts triggered in charts will fire TradeStation alerts, **only if enabled and configured in TradeStation**. Unlike in RadarScreen, there is no visual notification of SD Zones alerts in charts other than the firing of TradeStation alerts. Alerts are hidden by default in charts (i.e. disabled) unless you toggle them on.

The easiest way to show/hide alerts in charts is using the **ZoneMenu** (see screenshot): RightClick either **a zone line** or **the SD Zones Chart Title** in the top-right corner, then select **Change on this chart only > Show Proximity alerts (TS Alerts)** and/or **Show New Zone alerts (TS Alerts)**.

Alerts can also be enabled in charts using the **ShowAlerts Input**, the same way as described above for RadarScreen.

Once you have selected to **Show Proximity alerts** and/or **Show New Zone alerts**, you need to also enable TradeStation alerts.



Unfortunately, there is no way for SD Zones to automatically do this for you: Open **Format Indicator** for SD Zones (in TS10 **Customize Indicator**). A shortcut is to double-click one of the lines created by SD Zones and click **Yes**. From there select **Alerts tab > Enable Alert > Alert Continuously**.

See **Configuring TradeStation Alerts** below to set up audible alerts and emails or text messages.

Configuring TradeStation Alerts

The alert system in SD Zones ties into **TradeStation's Alert feature** so that you can receive audible and visual alerts and emails or text messages when you are away from your computer: EITHER when price first comes "within proximity" of a zone (**Proximity alerts**), OR when a new zone is formed (**New Zone alerts**), or BOTH. See **Alerts and Notifications** above.

TradeStation alerts can fire from charts as well as from RadarScreen. In charts, TradeStation alerts are the ONLY notification that an alert has triggered. In RadarScreen, alerts are shown as highlights in the Demand or Supply cells IN ADDITION to firing TradeStation alerts.

You typically enable TradeStation alerts only after you have reviewed highlighted zones in RadarScreen. Then you can leave your computer or do something else while waiting for TradeStation to alert you to symbols coming "within proximity" of a potentially tradable zone, or new zones forming. When you come back, the alerted zones will be highlighted in RadarScreen as described under **Alerts and Notifications** above.

Definitions: Trigger vs Fire - Show SD Zones alerts vs Enable TradeStation alerts

The term *"trigger" an alert* refers to the event itself: a new zone has formed (New Zone alert) or price has come "within proximity" of an existing zone (Proximity alert). As long as SD Zones is set to **Show Proximity alerts** or **Show New Zone alerts**, these events will *"trigger"* an action.

"Showing/hiding" SD Zones alerts is done either through the **ZoneMenu** or through the **ShowAlerts Input**. See **Showing/hiding alerts in RadarScreen**, **Showing/hiding alerts in charts** and **Showing/hiding alerts using the ShowAlerts Input** under **Alerts and Notifications** above.

The term *"fire" a TradeStation alert* refers to the action by the platform of playing a sound (**Audible**), showing a pop-up (**Visual**) and/or sending a message (**Email**).

When *an alert "triggers"* in SD Zones, it calls on the platform to *"fire" a TradeStation alert*, which it will do according to TradeStation's Alert Preferences, **assuming TradeStation alerts have been *"enabled"* in the platform**. To *"enable"* TradeStation alerts, see **Enabling TradeStation Alerts** under **Alerts and Notifications** above.

The rest of this section contains simplified steps to configure TradeStation Alert Preferences. Please search for "Alerts" in TradeStation Help for more exhaustive information about the TradeStation Alert system.

Unfortunately, there is no way for SD Zones to automatically do these things. They have to be configured by the user.

Configuring TradeStation Alert Preferences

To configure TradeStation Alert Preferences from RadarScreen, RightClick the SD Zones column header and select **Format SD Zones for All Symbols > Alerts tab** (in TS10 **Studies > Edit '$SD Zones' for All Symbols > Alerts tab**).

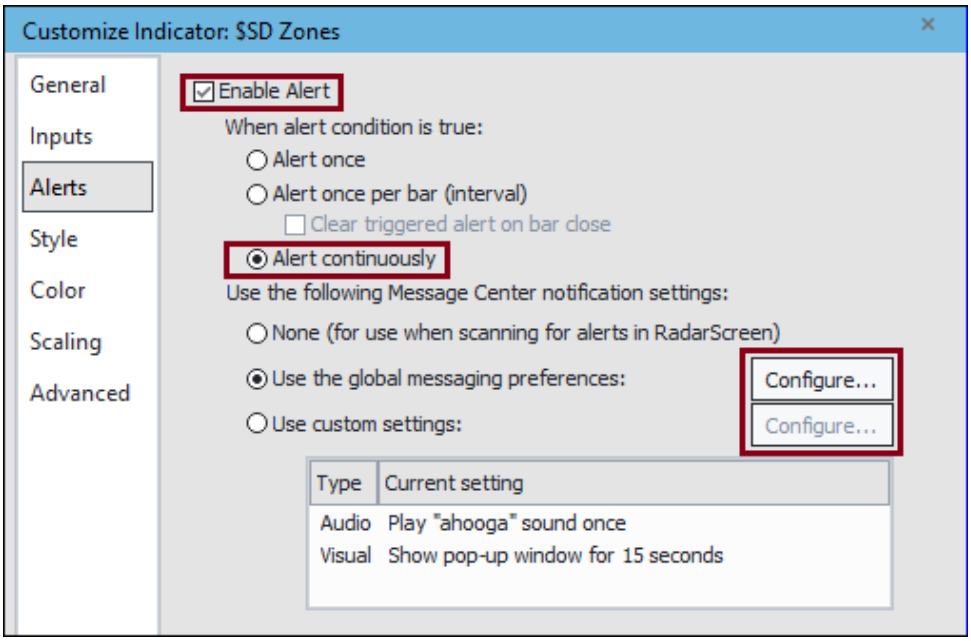
To configure TradeStation Alert Preferences from a chart, use the **Format Indicator > Alerts tab** (in TS10 **Customize Indicator > Alerts tab**). A shortcut is to double-click a zone line and click **Yes**, then select the **Alerts tab**.

On the **Alerts tab** (see screenshot), check **Enable Alert** and **Alert continuously** (if you hadn't already enabled TradeStation alerts previously).

Select **Use the global messaging preferences** to apply the configuration settings made here throughout TradeStation.

Select **Use custom settings** to apply the configuration settings made here JUST to SD Zones in this chart or this RadarScreen page.

Click the **Configure…** button for the messaging preference you selected to show **TradeStation's Notification Preferences**.



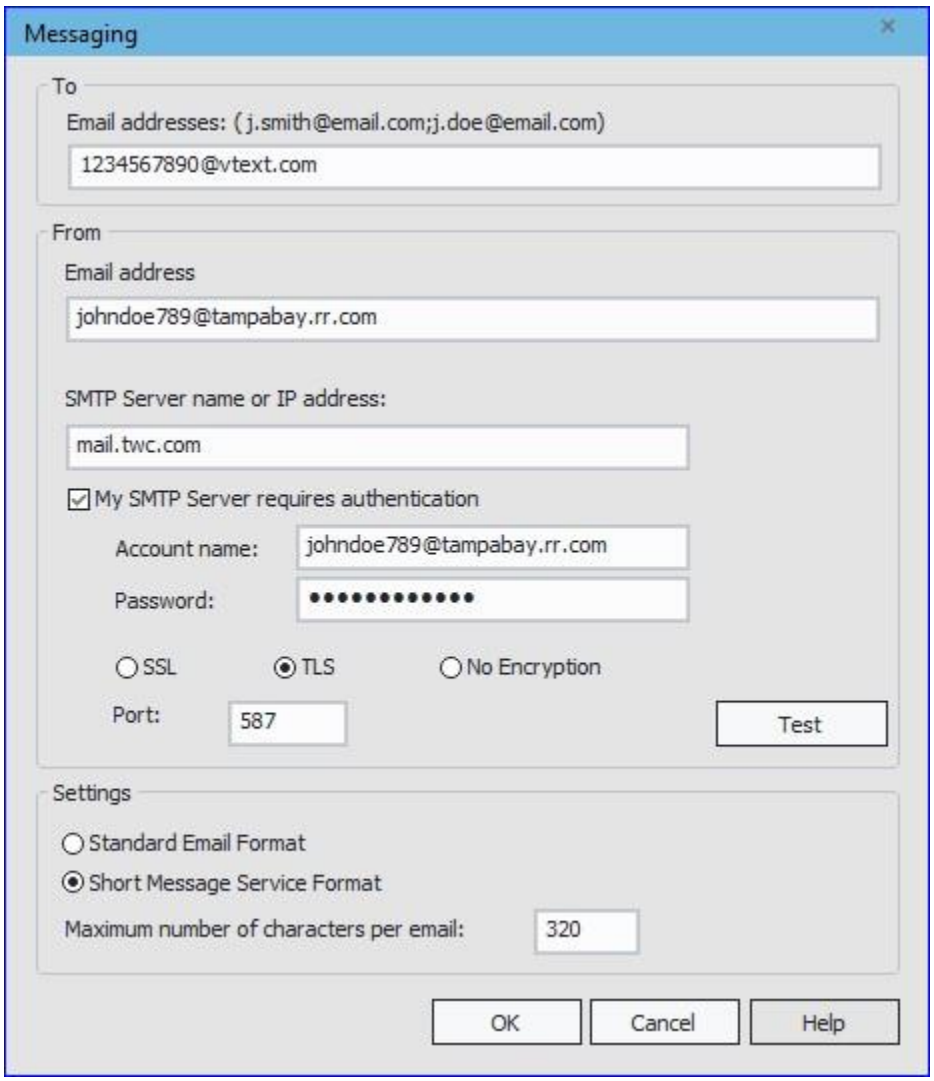
Configuring Notification Preferences

Setting **Audible** and **Visual** preferences is easy enough on the **Notification Preferences** screen. Refer to TradeStation Help for further details on those.

If you want to receive alerts as email or text messages, check **Email** and click **Configure…** to show **TradeStation's Messaging screen**.

Configuring Messaging settings

The difficult bit is always configuring Email preferences, which requires that you enter settings and credentials for an email server to send the alerts (so-called SMTP server).



TO is the email address where you want to RECEIVE alerts. If you want to receive alerts as Text Messages, check with your cell carrier. For example, Verizon uses 1234567890@vtext.com (substitute your phone number).

FROM is the email account from which alerts are SENT, for which you need to enter your email login credentials after checking **My SMTP Server requires authentication**. These have nothing to do with your TradeStation credentials. TradeStation essentially uses your email account as an email client program to send emails.

Encryption settings (SSL/TLS/Port) vary between email providers. Check this TradeStation help page or ask your email provider.

It IS possible to use a Gmail account as **FROM** address, but you must have Google generate a so-called **App Password** to use instead of your regular Google password. It's the same if you use any email program which Google doesn't know about. See Sign in with app passwords.

Once you have entered your information, click **Test** to check that TradeStation is able to send alerts. Assuming the test is successful, click **OK** to save your settings.

Setting up Messaging settings was always a hassle in TradeStation, but if you selected **Use the global messaging preferences**, you only have to do it once for all the different types of alerts in TradeStation. SD Zones merely asks the platform to fire an alert, the same as any other types of alerts you use in TradeStation.

TradeStation Message Center

Every alert TradeStation fires will be preserved as a line on the **Alerts tab** in the **TradeStation Message Center** so you can review the history of alerts. This is particularly useful if you use charts for SD Zones alerts instead of RadarScreen (where alerts are preserved as highlighted Demand/Supply cells).

Open Message Center using TradeStation's **View Menu > Message Center > Alerts tab** (in TS10 **View Menu > Messages > Message Center > Alerts tab**).

You can remove individual alerts from the list after reviewing them using the **Remove** toolbar button in Message Center; or clear the entire list using the **Erase** toolbar button. You can also change your Notification Preferences using the **Preferences** toolbar button (see **Configuring Notification Preferences** above).

Key/Mouse combo user actions

When used in chart windows, SD Zones supports different user actions invoked by a combination of a keyboard key and one of the mouse buttons. The actions supported are described below.

Scroll chart to base of a zone: Ctrl + Left Mouse-button

When reviewing supply/demand zones shown on a chart by SD Zones, it is often necessary to scroll the chart to inspect the base of the zone and its Leg-in and Leg-out. Sometimes you have to scroll pretty far.

The indicator provides a shortcut: Clicking one of its zone lines with the **left mouse button while holding the Ctrl key** will instantly scroll the chart to the base of the zone. This is VERY convenient for active supply/demand traders. Press the **End** key to get back to the right edge of the chart (assuming default TradeStation keyboard layout).

In the case of merged zones, clicking the **inside line** will scroll to the "innermost" of the merged zones; clicking the **outside line** will scroll to the "outermost" of the merged zones. (See **Visual chart settings** above.)

Settings panel: Ctrl + Right Mouse-button

SD Zones contains a number **Inputs** to control the criteria it uses to scan for supply/demand zones, visual settings for how they are displayed on charts and in RadarScreen, and many other features. While using Inputs to change settings will be familiar to TradeStation users, it is not always the most convenient or intuitive. SD Zones has a **Settings panel**, which can be used instead to quickly show and change its most commonly used settings.

In charts, open Settings panel by **Ctrl + RightClicking the chart background**.

In RadarScreen, open Settings panel by **LeftClicking** any **Demand, Supply** or **Proxim cell** and select **Settings…** from the **ZoneMenu**. Unfortunately TradeStation does not allow studies to use RightClick in RadarScreen.

Settings panel is NOT available in TradeStation Scanner.

See **Quick start: Settings panel** and the section **Settings panel** above for more information.

The Settings panel does not provide access to ALL features of SD Zones. In particular does it not allow setting **Custom zone criteria,** nor **Custom colors**, nor some other advanced features available through Inputs. Convenience is its purpose.

KeyMouseCombo Input

If you find the default Ctrl + Mouse-button features interfere with your work or with other programs, the key/mouse combination can be changed using the **KeyMouseCombo** input. It accepts the following values:

0: Disabled: the Key/Mouse actions are disabled. This speeds up the indicator by a tiny bit, but mostly it can be used to avoid conflicts with other programs, or if you just want to avoid the key/mouse actions altogether.

1: Mouse-button only: Left Mouse-button=Scroll to base – Right Mouse-button=Open Settings panel. No keyboard keys need to be pressed; just LeftClicking or RightClicking the mouse button. Be careful, as this "takes over" TradeStation's regular mouse actions.

2: Ctrl + Mouse Button: Ctrl+Left Mouse-button=Scroll to base – Ctrl+Right Mouse-button=Open Settings panel. Press and hold the Ctrl-key while clicking the mouse button. This is the default Input value.

3: Alt + Mouse Button: Alt+Left Mouse-button=Scroll to base – Alt+Right Mouse-button=Open Settings panel. Press and hold the Alt-key while clicking the mouse button.

4: Shift + Mouse Button: Shift+Left Mouse-button=Scroll to base – Shift+Right Mouse-button=Open Settings panel. Press and hold the Shift-key while clicking the mouse button.

*Note: If more than one instance of SD Zones is added to a chart, a Settings panel will open for **each instance** when Ctrl+Right Mouse-button is pressed. This can be avoided by using different **KeyMouseCombo** input values to select different key/mouse combinations. In cases where an SD Zones instance is based on a second symbol, such as when using the **HTF Overlay** feature (see **HTF zones overlaid on Entry charts** below) the indicator will automatically suppress opening of its Settings panel and show only the panel for the main symbol. To open the Settings panel for the HTF Overlay version, RightClick one of its zone lines (the magenta ones) and select **Settings…** from the displayed **ZoneMenu**.*

Adding new zones intrabar (tick-by-tick)

SD Zones allows a new zone to be detected while its Leg-out bar is still forming (so-called "intrabar"). It does this by checking for potential new zones on EVERY price tick. Because of the additional processing required doing this, SD Zones default behavior is to ONLY look for new zones intrabar on chart intervals of 60 min or higher (including Daily, Weekly, Monthly). The same applies to RadarScreen. So if RadarScreen is scanning a list of stock symbols on 60 min or Daily intervals it WILL automatically detect zones on every tick. Conversely, on symbol rows of smaller intervals (such as 3-15 min used for futures day trading) it will only detect new zones when each bar is completed.

To further optimize intrabar detection of new zones, the process is limited to every 2 seconds. In normal markets and on normal computers, this has little effect, since the detection is already so fast. But during extremely fast moving markets, when a lot of price ticks come in every second, it limits the amount of CPU time consumed by the indicator.

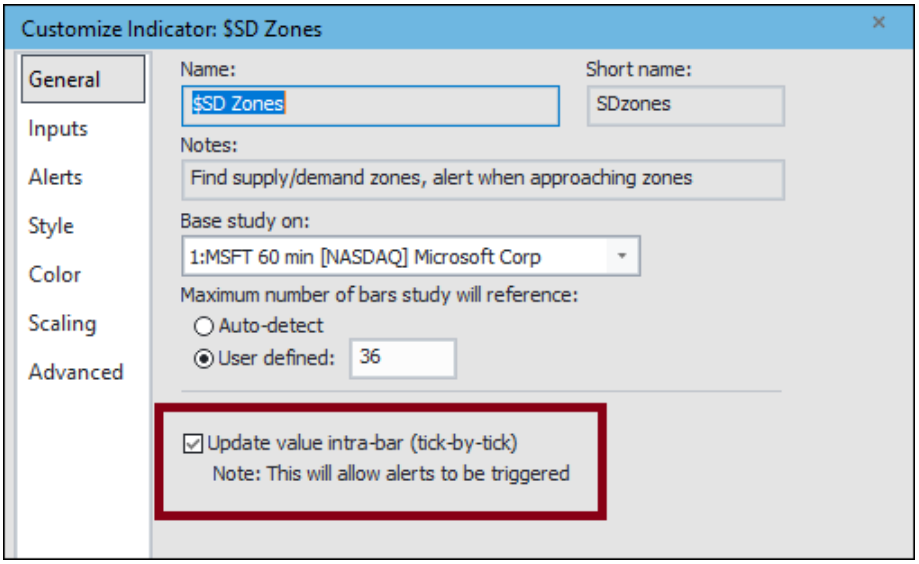
This default behavior can be changed with the **AddZonesIntrabar** Input:

0: Disabled - **never** look for zones intrabar, only when bar completes
1: Enabled (every 2 secs) - **always** look for zones intrabar, regardless of interval - limited to every 2 secs
2: Auto (every 2 secs) - enable on 60 min or higher (incl. Daily, Weekly, Monthly) - limited to every 2 secs
3: Auto (every 2 secs) - enable on 30 min or higher (incl. Daily, Weekly, Monthly) - limited to every 2 secs
9: Enabled (EVERY tick) - **always** look for zones intrabar, regardless of interval - EVERY tick

The **Auto** settings (2 and 3) are just a convenience to avoid having to change Inputs when setting up multiple chart windows or RadarScreen rows and pages, where the indicator is running on smaller intervals in some places and higher intervals in others. Just leave it on **Auto** (2 or 3) and it will adapt to the timeframe of each chart window and RadarScreen symbol row.

TradeStation setting: Update value intra-bar (tick-by-tick)
In order for TradeStation to allow SD Zones to run intrabar at all, the setting **Update value intra-bar (tick-by-tick)** must be enabled on the **Format Indicator > General tab**. It is enabled by default. This setting ALSO affects whether zones are updated intrabar when touched, invalidated or broken.

*Enable **tick-by-tick** setting to ensure zones can be detected and updated intrabar.*



HTF zones overlaid on Entry charts

Some traders prefer to "overlay" (superimpose) HTF zones on their Entry charts instead of watching separate High Timeframe charts. SD Zones supports this through the **ForceLinesOnChart1** Input.

TradeStation allows multiple symbols (so-called data series) to be added to the same chart window, each with their own timeframe (interval). For example, a second 60 min @ES symbol can be added to the window of a 10 min @ES chart, using TradeStation's **Insert menu > Symbol** feature (in TS10 **RightClick menu > Data > Add Symbol**). This second symbol is usually placed as a chart on another sub-graph below the main chart, although it can be placed on any sub-graph using the **Format Symbol > Scaling tab** (in TS10 **RightClick menu > Data > Edit Symbol > Scaling tab**). Or it can be hidden altogether.

In such a chart window, a second "instance" (copy) of the SD Zones indicator can be added based on the 60 min symbol instead of the 10 min symbol using **Format Indicator > General tab > Base study on** (in TS10 **RightClick menu > Data > Edit Symbol > General tab > Base study on**). This can be selected at the time SD Zones is added, by checking **Prompt for Format** on the **Insert Analysis Techniques** screen (in TS10 **Prompt for Editing** on the **Add Studies** screen). Please refer to TradeStation Help for more information about multiple symbols in chart windows.

When adding SD Zones to the HTF symbol (60 min in this example) set the Input **ForceLinesOnChart1=True** to have it show HTF zones on the Entry chart (sub-graph 1) where they will be displayed along with Entry zones ("overlaying" them). Of course also set **SettingsPreset=1** to look for HTF zones instead of Entry zones (see **Zone Criteria Preset** above). After this you can hide the HTF chart using the **Format Symbol > Scaling tab** so it doesn't take up space (in TS10 **RightClick menu > Data > Edit Symbol > Scaling tab**).

"SD Zones HTF" indicator variant

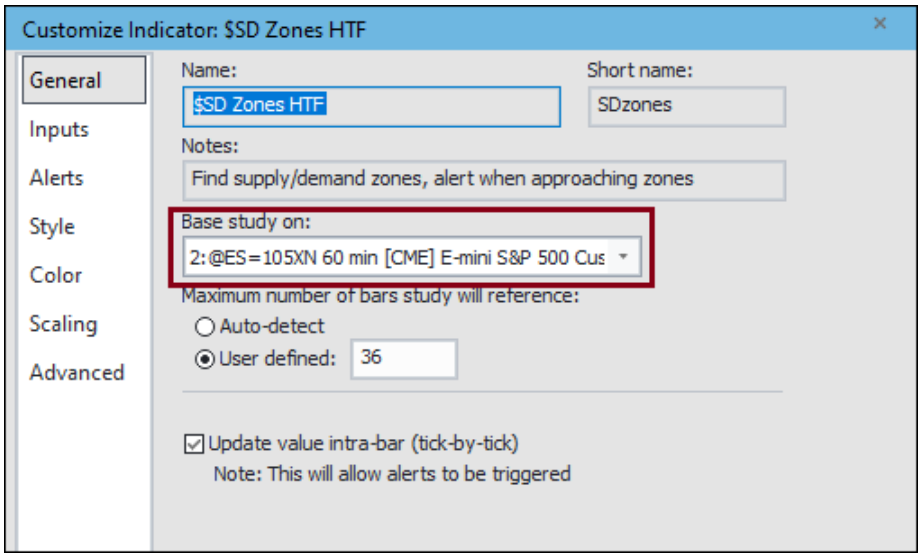
A special HTF Overlay variant of the SD Zones indicator is included, named **SD Zones HTF**, with default inputs to make this process simpler, including different line colors to distinguish HTF zones (**magenta**) from Entry zones (**cyan**). It also adds a second **Chart title** to the chart to show the color of the HTF zones and the HTF interval. See **Chart Title: Show the Zone Criteria Preset in effect** above and **Distinguishing Entry zones and HTF zones on charts** below for screen examples.

Because of the different names (**SD Zones** for Entry zones versus **SD Zones HTF** for HTF zones) it is easy to distinguish between the two indicator variants if you want to disable/enable one of them on a chart using TradeStation's **Enable/Disable Analysis Technique** toolbar button or its RightClick menu (in **TS10 RightClick menu > Studies > Enable/Disable Studies**). Other than the names and different default Inputs, there are no differences between the two variants of the indicator.

*Note: The **SD Zones HTF** indicator variant is ONLY meant to be used to overlay HTF charts on Entry charts. In regular HTF charts (High Timeframe charts) you should use the regular **SD Zones** variant. Some Input values in the HTF variant have been set specifically to work around certain TradeStation issues when adding a second instance to a chart window.*

The **SD Radar workspaces** named **HTF Overlay** (see above) illustrate the intended use of the HTF Overlay feature.

*When adding the special **SD Zones HTF** indicator to a second symbol in a chart window, use **Format Indicator > General tab > Base study on** (in TS10 **Edit Symbol > General tab > Base study on**) to select the HTF symbol (@ES 60 min in this case). This tells SD Zones which symbol to use when looking for zones.*



High Timeframe Link (HTF Link)

HTF Link is indicator included in the SD Zones package, designed for a **streamlined futures trade-finding workflow**. While TradeStation provides native **Symbol Linking** and **Interval Linking**, it lacks the ability to maintain a proportional relationship between different timeframes in Entry and HTF charts.

HTF Link bridges this gap by maintaining a proportional relationship between your primary Entry chart and your High Timeframe chart (HTF). As you cycle through futures symbols and intervals in RadarScreen, HTF Link automatically scales the HTF chart to a higher interval -- typically a multiple like 5x or 10x -- ensuring you always get a HTF chart with an appropriate relation to your Entry chart, without having to calculate HTF intervals in your head or manually change the HTF chart.

Core Functions

- **Automatic Interval Scaling:** Multiplies the Entry interval to determine the appropriate HTF interval based on the **HTF Interval Multiplier** input.
- **Smart Rounding:** Forces calculated HTF intervals to match common standard intervals (e.g., rounding a 25-minute calculated HTF interval up to 30 minutes).
- **Dynamic Timeframe Switching:** Automatically transitions the HTF chart between Minute, Daily, Weekly, and Monthly timeframes as the Entry chart scales up and down.
- **Sync Status & Manual Override:** Displays a **Link Title** in the bottom-left corner of the HTF chart; if it turns red, a simple Left-Click synchronizes the charts instantly.
- **Automatic HTF Update:** If enabled, updates the HTF chart automatically, immediately when the Entry chart changes.

SD Radar Workspace Implementation

The **SD Radar workspaces** included with SD Zones are pre-configured to utilize HTF Link in different ways:

Futures HTF Link Layouts: These workspaces are built specifically for the HTF Link workflow, featuring a large primary Entry chart and five smaller auxiliary charts. HTF Link is **Enabled** by default here.

Futures Legacy Layouts: These contain the "classic" layouts delivered with SD Zones for years. HTF Link is **Disabled** by default to avoid platform-specific "gotchas", but can be easily turned on via **Enable/Disable Analysis Techniques** (in TS10 **Enable/Disable Studies**).

Update Modes & Data Backfilling

HTF Link operates in two primary modes to balance convenience and reliability across different chart types:

1. **Manual Update (Minutes workspaces):** In the Day, Swing, and XL Swing workspaces, **Automatic HTF Update** is **Disabled** by default. TradeStation's native Symbol Linking handles the symbol change. HTF Link detects changes to the Entry chart and turns its Link Title red with the text **Click to update HTF chart** when (and only when) the HTF chart's interval needs updating. The user then clicks the red Link Title to update the HTF chart.
2. **Fully Automated (Ticks Workspaces):** In Ticks workspaces, **Automatic HTF Update** is **Enabled** by default, and TradeStation Symbol Linking is disabled. This lets HTF Link manage both symbol and interval linking without interference from TradeStation. It automatically updates the HTF chart every time the Entry chart changes, which is particularly convenient in the Ticks workspaces where every symbol row in RadarScreen has a different interval. It is also a deliberate workaround for a TradeStation bug where the Link Title may be hidden during data backfilling; enabling **Automatic HTF Update** ensures the HTF chart updates even if the manual link button is temporarily invisible.

You can toggle **Automatic HTF Update** via the pop-up menu by right-clicking the Link Title. Note that when **Automatic HTF Update** is enabled, TradeStation Symbol Linking and Interval Linking MUST be disabled to avoid command conflicts.

Interval Rounding Lists

To ensure the HTF chart uses common intervals (15, 30, 60, 120, 240 min etc), HTF Link contains rounding lists in its inputs which the user can change as desired. It has separate lists for Minute, Second, Tick and Share-based charts.

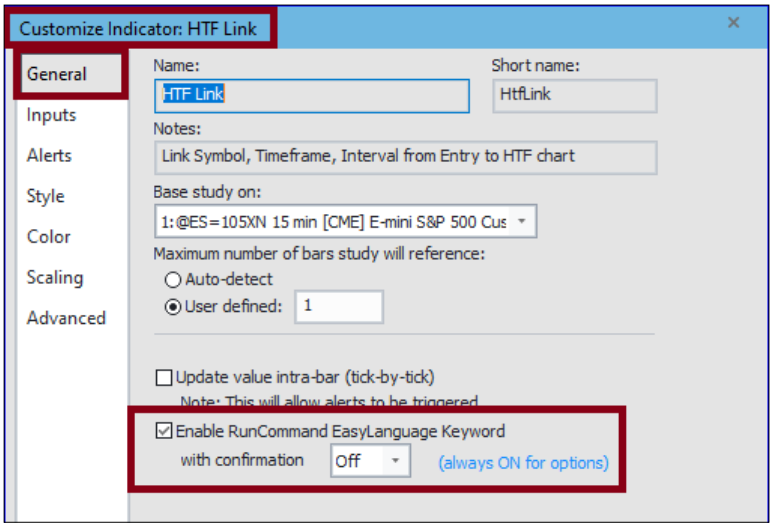
Time-Based charts (Minute and Second): The **HTF Minute Intervals** and **HTF Second Intervals** inputs come with default lists containing common intervals. You can add or remove any intervals to these as desired. They must be sorted, comma-separated, and enclosed in quotation marks (e.g., "15,30,60,120,240,300…"). HTF Link will always round up to the next value in the list. Above the last interval in the list, HTF Link will use the exact calculated interval.

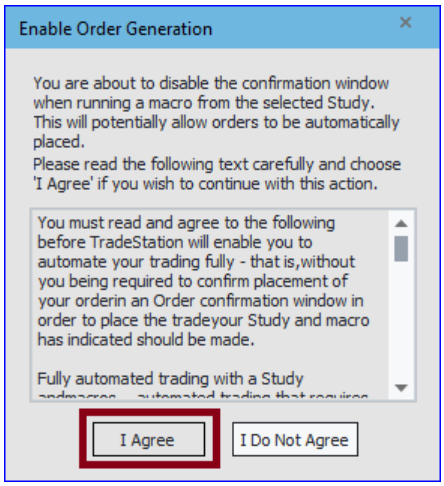
Activity-Based chart (Tick and Share): The **HTF Tick Intervals** and **HTF Share Intervals** inputs are blank by default, allowing for exact scaling unless you enter preferred. The same rules apply as for the **HTF Minute Intervals** and **HTF Second Intervals** inputs.

TradeStation "Gotchas"

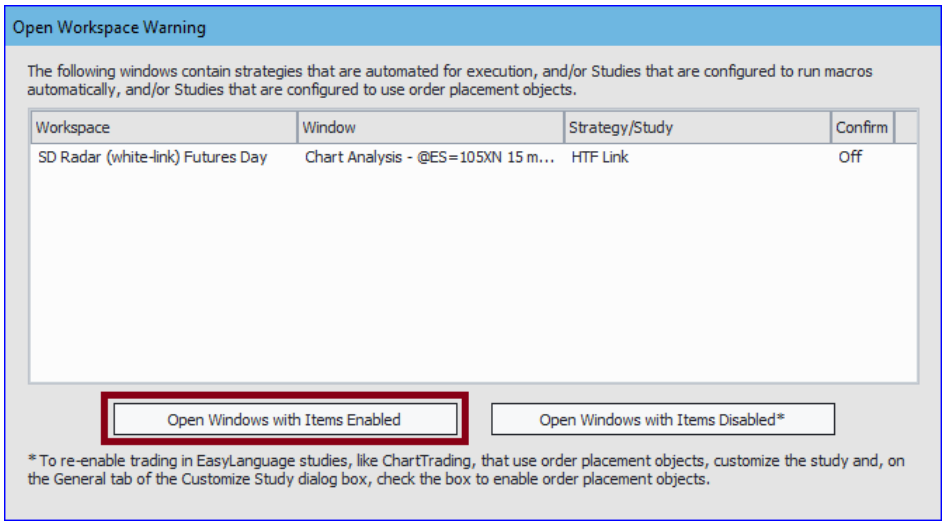
HTF Link issues command-line instructions to change interval of the HTF chart, the same way as if a user entered **120 min** into the TradeStation Command Line. Unfortunately there is no other way in TradeStation for an indicator to change the chart interval. This requires navigating specific TradeStation behaviors:

RunCommand Permission: On the HTF chart, you must go to the **General** tab of TradeStation's **Format Indicator** dialog (in TS10 **Customize Indicator**) check **Enable RunCommand** with **Confirmation OFF**. You must agree to the **Enable Order Generation** warning that follows. HTF Link does not issue trade orders; it only uses this permission to change symbols and intervals.





Platform Warnings: TradeStation will display security warnings when opening or closing workspaces using HTF Link. These are standard for any indicator utilizing RunCommand.



The "Focus" Requirement: The HTF chart often needs focus for several seconds while it updates. If you click elsewhere (in RadarScreen or another chart) during the split second the command is issued, it can fail or cause the command to affect the wrong window. To avoid errors, do not click anywhere else while waiting for the HTF chart to finish its update.

Version Limitation: Automatic HTF Update is not supported in TradeStation 9.5, as that version lacks the required focus-stealing functionality.

TradeStation 10 has supported focus-stealing since Update 84 (Rev 1404), but changed its implementation starting in Update 89 (Rev. 1428). Unfortunately it is not possible for an indicator to contain code for both the older and newer implementation, so **HTF Link requires TS10 Update 89 or newer**.

HTF Link Inputs

HTF Link accepts the following inputs. The values in parentheses are defaults when first adding it to a chart

Entry or HTF (0)	1=Entry chart, 2=HTF chart - TS Symbol & Interval Link must be set to [Not Linked], 0=suspend HTF Link
HTF Interval Multiplier (5)	HTF interval relative to Entry interval - suggested 5-10
HTF Minute Intervals ("15,30…")	HTF Minute intervals to use (sorted, comma-separated, round to higher) - blank=use any minute interval
HTF Second Intervals ("15,30…")	HTF Second intervals to use (sorted, comma-separated, round to higher) - blank=use any second interval
HTF Tick Intervals ("")	HTF Tick intervals to use (sorted, comma-separated, round to higher) - blank=use any tick interval
HTF Share Intervals ("")	HTF Share/Volume intervals to use (sorted, comma-separated, round to higher) - blank=use any share/volume interval
Shares Not Ticks (False)	True=use Share bars (Volume charts) in HTF chart instead of Tick bars. Old TS versions won't let HTF Link distinguish Share bars from Tick bars. Enable this if Share bars in the Entry chart become Tick bars in the HTF chart
Dynamic HTF Timeframe (True)	True=dynamically change HTF Timeframe between Minute/Daily/Weekly/Monthly - False=use same HTF Timeframe as Entry chart
Automatic HTF Update (False)	True=automatically update HTF chart as needed to reflect Entry chart (TS10 only) - False=manually update by clicing Link Title in bottom-left corner
Show Link Title (True)	True=show Link Title (''Entry chart'' or ''HTF chart'') in bottom-left corner of chart - False=don't show Link Title
Title Font Size (9)	Font size for Link Title - min=4, max=24
Title Up From Bottom (6)	Pixels between Link Title and bottom of chart
Link Group Name ("")	Link specific Entry/HTF chart pairs with the same group name - if multiple Entry/HTF chart pairs are loaded in the same or other workspaces

Input settings (complete list)

SD Zones contains a number of settings, managed through so-called TradeStation **Inputs**, which control the criteria it uses to scan for supply/demand zones, visual settings for how they are displayed on charts and in RadarScreen, and how and when it notifies you of newly formed zones or when price approaches an existing zone that might be a potential trade.

You change these Inputs using TradeStation's **Format Indicator > Inputs tab** (in TS10 **Customize Indicator > Inputs tab**).

Change Inputs in Charts

In charts, use **RightClick menu > Analysis Techniques > SD Zones > Format > Inputs tab** (in TS10 **RightClick menu > Studies > Edit Studies > SD Zones > Customize > Inputs tab**). A shortcut is to double-click one of the lines created by SD Zones and click **Yes**, then select the **Inputs tab** if it isn't already shown. Note that this will change Inputs ONLY for that chart window. TradeStation offers no way to automatically update Input values in multiple charts.

*Note: Many chart settings can be changed or toggled with just a few mouse clicks using **ZoneMenu > Change on this chart only**. This temporarily **overrides the Input values**, but doesn't actually change them. See **Quick start: ZoneMenu** above.*

Change Inputs in RadarScreen

In RadarScreen, **RightClick the SD Zones column header** and select **Format 'SD Zones' for All Symbols** (in TS 10 **RightClick menu > Studies > Edit 'SD Zones' for All Symbols**). This applies the changes to ALL symbol rows on that RadarScreen page.

You can also change just a single row in RadarScreen, or select a range of Demand or Supply cells with the Shift key and select **Format 'SD Zones' for Selected Symbols** (in TS 10 **RightClick menu > Studies > Customize 'SD Zones' for Selected Symbols**).

Change Inputs in Scanner

In Scanner, add **$SD Zones** on the **Scan Criteria** tab using **Select Criteria > Indicator…**, then change its Input values by clicking the little **+** sign next to **SD Zones** to show its full list of Inputs in the **Input/Settings Name** column and change their values in the **Values** column.

On the **$SD Zones** Criteria line, make sure to select **Alert** in the **Field** column and **True** in the **Operator** column. This will scan for symbols which are "within proximity" of a supply/demand zone and use the **Alert** feature to include it in the scan results. The **AlertProximity** input determines how close the zone must be in HHMM. See **Quick Start: Scanner** above.

Change settings with Settings panel

Instead of changing TradeStation Input values, many of the most common settings can be changed using the **Settings panel**, either from charts or from RadarScreen. This **overrides the Input values**, and can even **apply the settings to other charts and RadarScreen rows** with a single click. But it doesn't change the Input values themselves. Rather, **the input values become defaults**, to which each setting can easily be reverted. See **Quick start: Settings panel** above.

Complete list of Inputs

Following is the complete list of all Inputs. Most are described more extensively in the sections above under **Indicator Feature Descriptions**, particularly **Zone Criteria Preset** and **Visual chart settings**.

The values in parentheses are defaults when first adding SD Zones to a chart, RadarScreen or Scanner window.

Zone criteria preset

SettingsPreset (0)

0=Chart confluence (medium lax)
1=HTF zones (lax)
2=Entry zones (medium)
3=Entry zones (strict)
4=Entry zones (extreme)
5=Entry zones (ticks)
6=Entry zones (single-bar doji)
99=Custom zone criteria (use inputs)

Color preset

ColorPreset (3)

0=Custom colors (inputs),
1=Black background
2=White background
3=Auto detect black/white background

Other zone criteria: used regardless of SettingsPreset, overriding presets

ZoneTypesToShow (2)	0=Show ALL zone types 1=Show DBD & RBR only 2=Use SettingsPreset, if Preset99 show all zones
ZoneHeightRule (0)	1=Qualify and draw zones Wick-to-Body (find more zones) 2=Qualify and draw zones Wick-to-Wick (find fewer zones) 3=Qualify W2B / Draw W2W (more zones, draw as W2W) 4=Qualify W2B / Draw adaptively (more zones, draw adaptively) 0=use SettingsPreset
MaxDistMergeZones (0.25)	How close for zones to merge, relative to base height: 5.00=Max 0.00=Disable merging
AlmostTouchTolerance (0.25)	How close to zone for almost-touch, relative to base height: 1.00=Max 0.00=Ignore almost-touches

Ignore zones formed overnight: between "After" time and "Before" time

IgnoreZonesAfter (2400)	Ignore zones formed after this time (HHMM), 2400=ignore none
IgnoreZonesBefore (0000)	Ignore zones formed before this time (HHMM), 0000=ignore none

Alerts & RadarScreen notifications: TradeStation Alerts fire if enabled in TS

ShowAlerts (9)	0=NO alerts/notifications 1=Zone proximity alerts 2=New Zone alerts 3=BOTH Proximity and New Zone alerts 9=Charts NO alerts, RadarScreen BOTH alerts
AlertProximity (0100)	Alert/notify when proximity to zone is within HHMM entered here
ShowProximPlot (2)	0=NEVER show proximity column/plot 1=ALWAYS show proximity column/plot (h.mm) 2=Show proximity column/plot in RadarScreen & Scanner only (h.mm)

Visual chart settings: control zone drawing on charts

ShowChartTitle (True)	show SettingsPreset or custom title in top-left corner
ShowHilites(True)	show rectangle highlighting base of zones
ShowLabels (True)	show price labels with zone lines
ShowInvalidatedZones (True)	show zones that were touched too often or too deep, but not yet broken
LabelRightJustify (True)	keep price labels at right edge of chart window
FontName ("Arial")	font used for price labels and chart title, ""=TradeStation default
LabelFontSize (8)	price label text font size
TitleFontSize (9)	chart title text font size
TitleShiftDown (2)	shift chart title down by x pixels
CustomChartTitle ("")	custom chart title, ""=show SettingsPreset
InsideLineWeight (0)	zone inside line weight 0-6, 0=thinnest
OutsideLineWeight (0)	zone outside line weight 0-6, 0=thinnest
ForceLinesOnChart1 (False)	HTF overlay: draw zones from sub-graphs on main graph
HideOnAdvCharts (True)	hide indicator on advanced chart types (Range, Kagi etc)

Custom colors: used ONLY when ColorPreset=0, ignored when ColorPresets are in effect

InsideLineColor (Cyan)	zone inside line color
OutsideLineColor (BrighterCyan)	zone outside line color
InsLineTransparency (40)	zone inside line transparency
OutsLineTransparency (0)	zone outside line transparency
InsideLabelColor (SemiDarkCyan)	zone inside label color
OutsideLabelColor (Cyan)	zone outside label color
InsLabelTransparency (0)	zone inside label transparency
OutsLabelTransparency (0)	zone outside label transparency
HiliteColor (Yellow)	color of rectangle highlighting zone base
HiliteTransparency (80)	transparency of rectangle highlighting zone base

TitleColor (SemiDarkCyan)	chart title color
TitleTransparency (20)	chart title transparency
ProximAlertColor (DarkBlue)	RadarScreen background color for Proximity notifications
NewZoneAlertColor(DarkerGray)	RadarScreen background color for New Zone notifications

Custom Zone Criteria: used ONLY when SettingsPreset=99, ignored when SettingsPresets are in effect

MinZoneBars (1)	min number of bars in base
MaxZoneBars (8)	max number of bars in base
MinZoneHeightSkipTicks (3)	min height of base in ticks - or skip zone
MinZoneHeightSkipATR (0.1)	min height of base relative to ATR - or skip zone
MinZoneHeightAdjATR (0.5)	min height of base relative to ATR - or adjust height
ATRLength (36)	number of bars for ATR calculation
MinLegoutSize (1.25)	min size of Leg-out (relative to height of base)
MinLeginSize (0.90)	min size of Leg-in (relative to height of base)
MinBaseBarScore (0)	min bar score for Base bars
HiConfBaseBarScore (-6)	high confidence score for Base bars
MinLegBarScore (2)	min bar score for Leg bars
HiConfLegBarScore (2)	high confidence score for leg bars
MinLegBar2Score (1)	min score for following Leg bars
MaxLegoutBarBreakATR (0.1)	max above/below base on Leg-out bar relative to ATR - or skip zone
MaxTouchBarsInvalid (6)	max bars touching into zone before it's invalidated
MaxTouchDepthInvalid (0.5)	how deep into zone before it's invalidated (relative to base height)
MinLegoutMove (0.75)	min size of move from base for first Leg bar (relative to base height)
MinLegBarMoveATR (1.00)	min bar move to continue a leg (relative to ATR)

Misc settings: rarely need changing

DaysToLookBack (0)	how many days back to look for zones, 0=entire chart
AddZonesIntrabar (2)	0=NEVER add zones intrabar, only on bar close 1= ALWAYS add zones intrabar (only every 2 secs) 2=Add zones intrabar on 60 min intervals and higher (only every 2 secs) 3=Add zones intrabar on 30 min intervals and higher (only every 2 secs) 9=ALWAYS add zones intrabar (on EVERY tick)

Key/Mouse combo user actions

KeyMouseCombo (2)	0=Disable key/mouse actions 1=MouseButton only – LeftBtn=ScrollToZone, RightBtn=Settings panel 2=Ctrl+MouseButton – Ctrl+LeftBtn=ScrollToZone, Ctrl+RightBtn=Settings panel 3=Alt+MouseButton – Alt+LeftBtn=ScrollToZone, Alt+RightBtn=Settings panel 4=Shift+MouseButton – Shift+LeftBtn=ScrollToZone, Shift+RightBtn=Settings panel

Share settings between Charts/RadarScreen rows

ShareSettings (True)	False=disable sharing between charts/RS rows using same SettingsPreset Input value
ShareWorkspaceName ("")	group name for this chart/RadarScreen row when sharing settings ""=use workspace name (TS10) / share with all ALL workspaces (TS9.5)

Internal use only: for testing, debugging and backwards compatibility

ShowZones (True)	show zone lines on chart: false=show only plots (nearest zones & proximity)
ShowBrokenZones (False)	show broken historical zones. Shows ALL merged zones. Debug only
TitleVertOffset (2)	backwards compatibility: leave at 2 or 16. Use TitleShiftDown to change location of chart title

Keeping RadarScreen and charts in sync

Make sure Input settings in RadarScreen which affect zone criteria match those same Inputs in linked chart windows. For example, if the symbol rows in RadarScreen use an Interval of 60 min (as set by **RightClick Symbol column > Format All Symbols,** in TS10 **RightClick Symbol column > Timeframe > Customize > All symbols**) that means TradeStation will treat each row as a 60 min chart. If you also have a linked 60 min chart window to show the detected zones, make sure it uses the same Zone Criteria (**SettingsPreset, ZoneTypesToShow, ZoneHeightRule, IgnoreZonesAfter/Before**, etc) in order to detect the exact same zones on the chart as were found in RadarScreen.

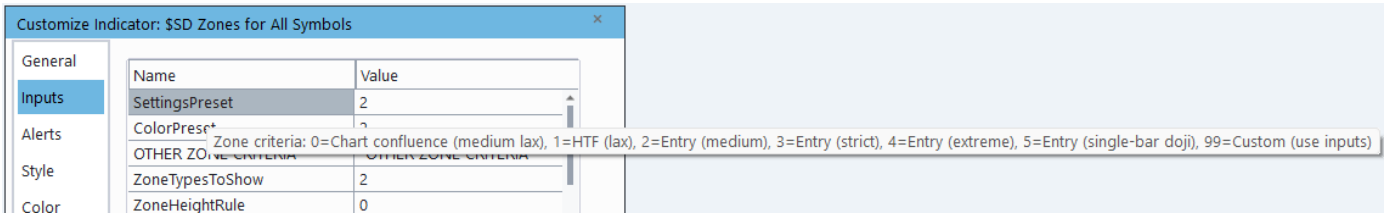
Note that charts by default show **Invalidated zones** using dash-dot-dot outside lines. RadarScreen only shows zones which haven't yet been invalidated since they are no longer considered trade candidates.

Input ToolTips (TradeStation 10 only)

Most Input fields are fairly self-explanatory from their names: **InsideLineColor** sets the color of inside zone lines; **ShowLabels** shows (or hides) price labels; and so forth.

But some Input fields require more explanation. For example **SettingsPreset** selects a preset for zone criteria, with possible values being 0, 1, 2, 3, 4, 5 (or 99 for Custom Zone Criteria). See **Zone Criteria Preset** above for details.

In TradeStation 10, hovering the mouse cursor over the name of each Input field will show a **ToolTip** describing what the Input does and the different values which can be entered.



TradeStation 10 ToolTips: *Hover the mouse cursor over the Input name to show the ToolTip.*

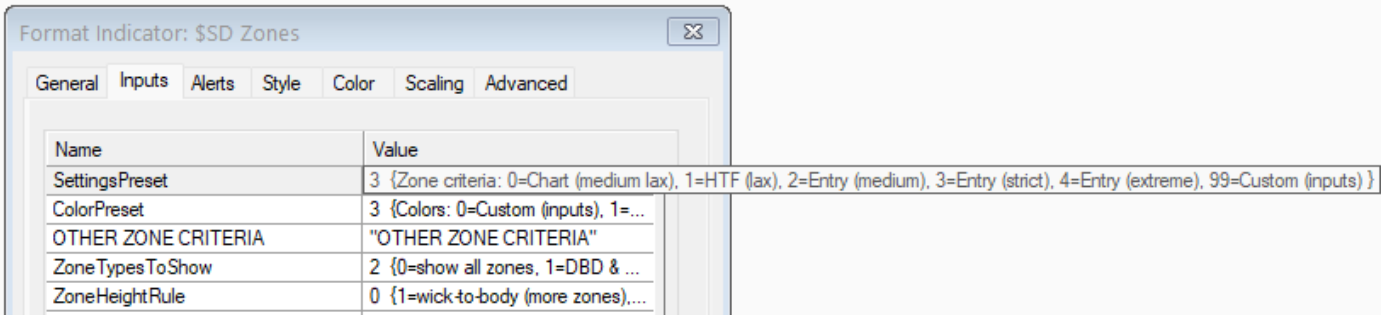
Input {Descriptive comments} (TradeStation 9.5 only)

Earlier TradeStation versions do not support ToolTips. Instead, the SD Zones Input fields have descriptive comments in **{curly braces}**. Hover your mouse cursor over the value to show the full description.

The {descriptive comments} look confusing, but they are the only way in earlier TradeStation versions to provide help on each Input. When you change values in those fields, just leave the {descriptive comments} alone. Or you can delete them entirely, including the curly braces, if you prefer them out of the way.

*Note: Since by far the majority of SD Zones users run TradeStation 10, the **SD Radar Stocks workspaces** were created WITHOUT {descriptive comments} to provide the most clarity for the most users. TS9.5 users are advised to use the above list of settings for reference when modifying Inputs in SD Radar workspaces.*

Remember, the **Settings panel** and the **ZoneMenu** are easy alternatives to updating Input values for the most common settings. See ***Quick start: Settings panel*** and ***Quick start: ZoneMenu*** above.



TradeStation 9.5 Descriptive comments in {curly braces}: *Hover the mouse cursor over the Input value to read the entire description as a fly-out tooltip. You can change the comments or delete them without affecting the indicator.*

Input group headings

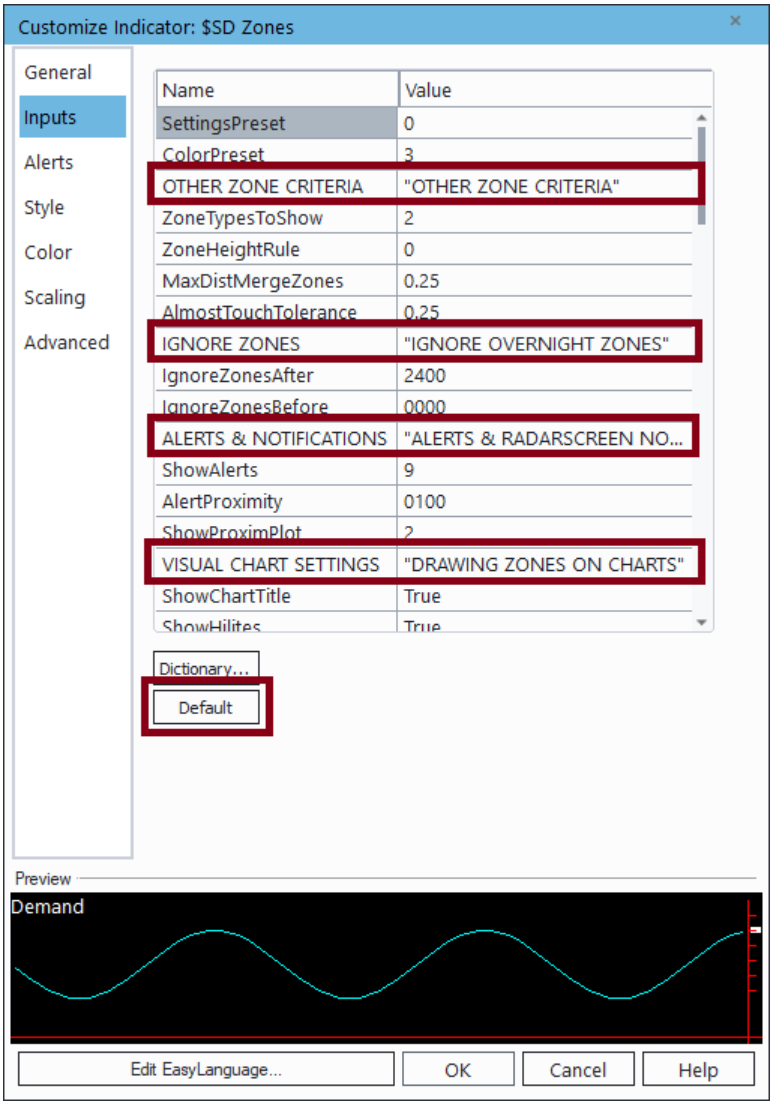
Many Inputs are grouped under **group headings**, which are simply Inputs themselves with names in all caps and a short text describing the group of Inputs below. It looks crude, but TradeStation offers no other way to group Inputs. The group headings have no function other than to describe the purpose and use of the Inputs.

You can edit or delete their text without affecting the indicator.

TradeStation Inputs DEFAULT button

TradeStation has a **Default** button on the Inputs tab, which is used to save the Input values currently entered as future defaults when the indicator is added to another chart or RadarScreen.

Using this button **IS NOT RECOMMENDED** with SD Zones as it effectively updates the indicator code to change its default Input values. There is no way to restore the original defaults other than re-installing the indicator.



Fixing TradeStation Download Scheduling

If TradeStation seems more than usually slow to populate RadarScreen pages with many symbol rows – such as the **SD Radar Stocks Swing** or **SD Radar Futures XL Swing** workspaces, but also other workspaces, whether they use SD Zones or not – you should check TradeStation's **Download Scheduler Request** settings.

Open **View menu > Download Scheduler > Scheduled Items tab** (in TS10 **View menu > Messages > Download Scheduler > Scheduled Items tab**). If any items scheduled for download say **Off peak** instead of **ASAP** in the **Priority** column, that means TradeStation is set to NOT download data immediately. In that case, or if the data download does not make progress, try the following steps:

1) Exit TradeStation.

2) Delete all files in the folder **C:\Program Files (x86)\TradeStation 9.5\Program\Cache** (in TS10 **Documents\TradeStation 10.0\CAL\Cache**). If you manually placed your TradeStation cache folder somewhere else, delete its contents in that location.

3) Load TradeStation again.

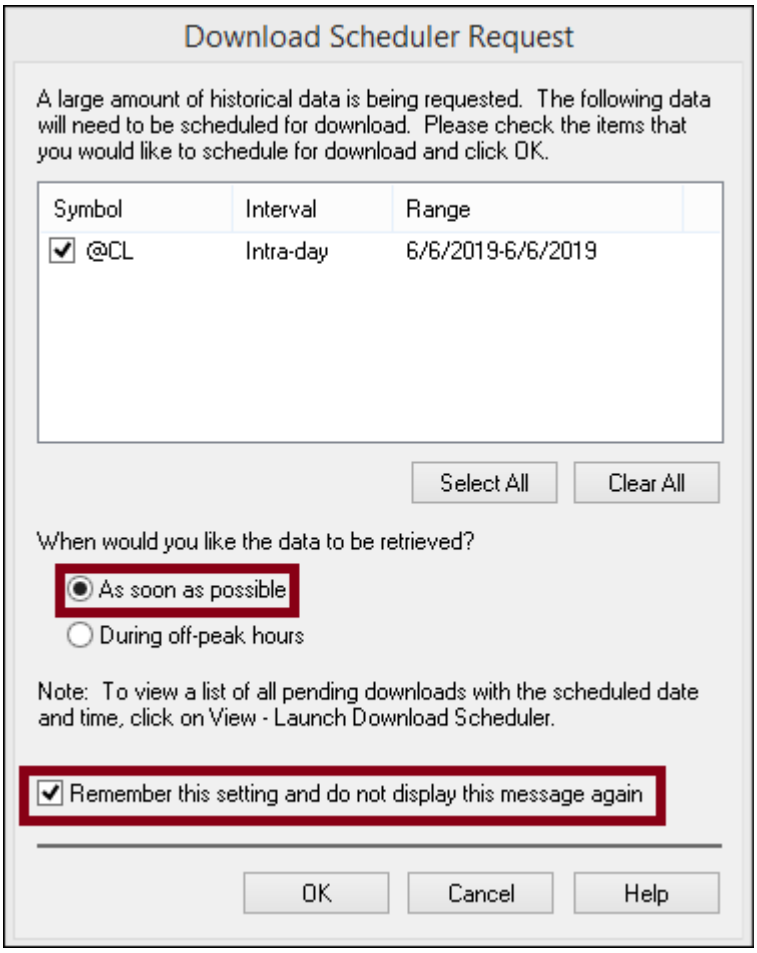
4) Create a chart window (or open a simple workspace that contains a chart window).

5) Select **View menu > Chart Analysis Preferences > Data tab** (In TS10 **RightClick menu > Settings > Preferences > Data tab**) and enable **Show Download Request Scheduler...**

6) Change to a different symbol in the chart window and select an intraday timeframe, say 2 min. This should open a **Download Scheduler Request** window. If it doesn't, try another symbol and/or interval to force TradeStation to download some chart data.

7) In the **Download Scheduler Request** window that pops up, select **As soon as possible** and **Remember this setting and do not display this message again**, then click OK.

8. Now load the workspace again that caused the problem and let TradeStation finish completing all tasks displayed on the **Scheduled Items** tab in Download Scheduler.



*Note: It is ALWAYS advisable to let TradeStation complete data downloading and any other tasks **without interruption**, even when they take a long time. TradeStation does all these tasks in the background and lets you continue working, but the truth is that **interrupting TradeStation** while it is busy, **is one of the surest ways to cause it to hang, crash or otherwise become unstable**. This is particularly true while it is downloading data through the TradeStation Client Access Layer module (CAL).*

Speeding up TradeStation (particularly TS10)

As TradeStation has gone from version 9.1 (the most stable I've seen since 2009) to 9.5 and later TS10, it has become increasingly slower. TS10 in particular can become dramatically slower, unless special care is taken.

A key reason for TS10 slowness, is that all of its internal work folders and files have been moved from the main **Program Files** folder where they were located in previous versions (**C:\Program Files (x86)\TradeStation 9.5**) to the user's regular Documents folder (**Documents\TradeStation 10.0**). This is perfectly in line with Windows guidelines, but it means that the files are now subject to **real-time Anti-Virus scanning**, and sometimes to **real-time backup** by **OneDrive** or **Google Drive**. In the case of TradeStation's data cache, which is updated with every trading tick of new data coming in from the market, this real-time Anti-Virus scanning and backup will slow it down quite severely. Fixing it can dramatically speed up and improve the stability of TS10. They will also speed up TS9.5, though to a lesser extent.

Excluding from real-time Anti-Virus scanning

To avoid real-time Anti-Virus scanning of TradeStation files, use the settings in your Anti-Virus software to **exclude** TradeStation processes (program files) and work folders (**C:\Program Files (x86)\TradeStation 9.5** for TS9.5, **C:\Users\Username\Documents\TradeStation 10.0** for TS10). I have created a list of all the relevant folders, file types and processes to exclude, which you can download with the following link. The exact steps to add these exclusions depend on your Anti-Virus software. See the TS10 re-installation guide linked below if you are using Windows' built-in Anti-Virus.

Speeding up TS performance.txt

Avoiding OneDrive / Google Drive real-time backup

If your Documents folder is being backed up to OneDrive or Google Drive, you should disable that as well to avoid real-time backup of the **TradeStation 10.0** subfolder inside your Documents folder. **But be careful**, as disabling Documents backup may cause ALL files and sub-folders in your Documents folder to be removed from the local computer, remaining only in the OneDrive / Google Drive cloud. Perform a full TradeStation backup first (**File > Backup/Restore TradeStation**).

If you have not yet installed TS10, disable Documents backup in OneDrive / Google Drive settings **before you install TS10**.

See the TS10 re-installation guide linked below for detailed steps to backup, uninstall and re-install TradeStation 10, including how to work around OneDrive and set exclusions for Windows' built-in Anti-Virus. It also includes steps to troubleshoot instability with TS10, partially applicable to TS9.5 as well.

Re-installing TradeStation 10 - the complete guide (PDF)

Using OneDrive with TradeStation

I personally use OneDrive extensively, including for my TradeStation work files. It works great, both to keep files backed up and to make them available on multiple PCs. But I make VERY sure that it is NOT set to back up my Documents folder.

To use OneDrive with TradeStation files AFTER disabling Documents backup, simply create sub-folders in your OneDrive folder, such as **OneDrive\TradeStation\Workspaces** and **OneDrive\TradeStation\Archives**. When you save workspaces or backups in TradeStation, just click **Browse** and navigate to those OneDrive sub-folders instead of saving in the default **Documents\TradeStation 10\Workspaces** and **Documents\TradeStation Archives** folders.

This way you remain in full control of what is automatically backed up, and the workspace and backup files will still be synchronized between computers. All TradeStation's internal folders and files and its cache are not suitable for synchronization anyway.

TradeStation Community Forum Discussions

TradeStation's Community Forum has some useful discussions on these subjects. Check the following topics. You need to login to the TradeStation website BEFORE clicking these links.

OneDrive and TradeStation 10

- Read Solidus' opening post on page 1
- Read Dannemand's post on page 2
- Ignore everything else in the thread

RAM drive for TS Cache (and other stuff)

- Read Dannemand's opening post on page 1
- Read Dannemand's post #4 to move Edge folders to RAM Drive

FAQ: Frequently asked questions

Use SD Zones to FIND zones, not just to SHOW them

Maybe to the surprise of some, SD Zones was NOT developed primarily to show supply/demand zones on a chart.

Sure, you can put it on a chart, and it will show you supply/demand zones, some of which might be potential trades, some may not. If you are a skilled supply/demand trader, your eyes will quickly tell you. But then your eyes are already trained to see zones on a chart.

Rather, SD Zones was developed to find potentially tradable entry zones among dozens, or even hundreds, of invisible "charts" (symbol rows) in RadarScreen and notify you to the ones that are about to meet entry. It can even send you an alert so you don't have to wait around. You can then click those symbols to show the corresponding charts. And NOW your eyes can do what they do best: Review and qualify the zones and determine if there is a potential trade.

While SD Zones has elaborate features to SHOW supply/demand zones on charts, its main purpose is to FIND zones in RadarScreen among many symbols and timeframes. And thus help you find more trades and/or spend less time.

Choosing a SettingsPreset

SD Zones can be made to scan for zones in an almost infinite number of ways, using various combinations of "Zone Criteria". To make it easier for the user, it provides a single **SettingsPreset** Input to easily select one of several different presets (0, 1, 2, 3, 4 or 5) with varying "strictness" of zone criteria; or you can enter 99 to program your own custom values of the individual Inputs that control zone criteria.

See **Zone Criteria Preset** and **Custom Zone Criteria Inputs** above. Presets can be changed either through the **SettingsPreset** Input or with the **Settings panel**. See **Quick start: Settings panel** above.

SettingsPreset accepts the following values:

0: Chart confluence (medium lax) (default) - finds zones suitable as chart confluence with other indicators or signals
1: HTF zones (lax) - finds any zone, as typically used for High Timeframe charts (HTF) and "opposing zones"
2: Entry zones (medium) - finds zones suitable as Entry zones, including many that may not qualify
3: Entry zones (strict) - finds only Entry zones of higher confidence, but may overlook some good zones
4: Entry zones (extreme) - finds only Entry zones of even higher confidence, but overlooks many good zones
5: Entry zones (ticks) - tuned specifically for tick-based charts, finds fewer zones than Preset3
6: Single-bar doji zones - finds only Entry zones with bases consisting of a single doji candle
99: Custom zone criteria - no preset, use Custom Zone Criteria inputs to program zone detection

The default **SettingsPreset=0** (**Chart confluence - medium lax**) is meant as a starting point to demonstrate how SD Zones works. It is also great for choosing potential trades in confluence with other indicators and trade signals. But it is NOT the recommended setting for "pure" supply/demand trading, with zones as the only (or primary) strategy. That's what the other Presets are for: **SettingsPreset=1** (Entry zones - lax) for HTF charts, **SettingsPreset=2**, **3**, **4** and **5** (Entry zones - **Medium**, **Strict**, **Extreme** and **Ticks**, respectively) for Entry charts and RadarScreen. Preset4 (extreme) filters out more zones than Preset3 (strict), which in turn filters out more zones than Preset2 (medium). All of them filter out more zones than Preset0 (medium lax). Preset1 (HTF zones - lax) shows anything that might be a zone, as well as some that aren't. That is deliberate. SettingsPreset=5 (Entry zones - ticks) is specifically tuned for tick-based charts and finds fewer zones than Preset3 (strict). SettingsPreset=6 (Single-bar doji zones) is a specialty preset for traders who focus in this pattern.

If Preset3 (strict) finds higher probability zones than Preset2 (medium) then why not always use Strict?
Because Preset2 (medium) will give you more potential Entry zones from which to choose. The quality of the Entry zone is not the only factor in selecting a good trade setup.

Does using Preset4 (extreme) guarantee that zones are good enough to trade?
No! You ALWAYS need to visually inspect and qualify zones found by SD Zones, regardless of preset. They are suggestions ONLY, and it will often find zones that are not suitable for a trade, even when using the **strict** or **extreme** presets. You ALSO need to manually consider High-Timeframe charts (HTF) for any trade, regardless of the quality of the Entry zone. Even the best Entry zones can fail in the wrong location or context, or when price is hammering in the opposite direction. And finally, you need to apply any other rules you may have on your checklist or trading plan to make sure it is a sensible trade setup.

Why would you ever use Preset1 (HTF zones - lax) to find zones?
Because when looking for "opposing zones", and particularly on High Timeframe charts (HTF), you don't want to overlook zones that might get "in the way", even if they are of lesser quality and not directly suitable as entry zones. Even mediocre zones on an HTF chart will often cause a sizeable move on a lower timeframe Entry chart. Entry zones, opposing zones (on

Entry charts) and HTF zones (on HTF charts) are very different things, used in very different ways. See the supply/demand lesson **Entry zones vs High Timeframe zones** below.

Tip: Train your eyes to look for **the space between HTF zones** (magenta colored) more so than the zones themselves. They are NOT meant to be Entry zones.

Use the Entry zone presets (2, 3, 4 or 5) in RadarScreen to locate potential Entry zones coming up
In RadarScreen, you want to scan for zones that are potential Entry zones, using either **SettingsPreset=2**, **3**, **4** or 5. You can set **ZoneTypesToShow=0** if you want to include DBR and RBD entry zones (Drop-Base-Rally and Rally-Base-Drop). By default such zones are NOT shown with those presets since they are usually not "authentic", and thus have lower probability (see **Zone types to show** above).

Note that changes to the **SettingsPreset** Input (or any Zone criteria Input) must be performed on ALL RadarScreen rows and ALL entry charts to make sure they match. Input changes do NOT automatically update on other charts and RadarScreen windows.

With the **Settings panel**, you can apply changes to ALL charts and/or ALL RadarScreen rows with a single mouse click, although it does not change the actual Inputs, but merely "overrides" them. See **Quick start: Settings panel** and **Key/Mouse combo user actions** above.

The SD Radar workspaces have all this set up for you, and may be better starting points than adding the indicator to your existing chart windows and expecting to find good trade setups.

Why do some seemingly good zones fail?

A supply/demand zone on an Entry chart is NOT in itself a trade setup! Most zones on any given chart will cause only small bounces rather than major reversals, even great looking zones. That is true regardless of whether they're found by SD Zones or with your eyes.

The secret to successful supply/demand trading is getting DIRECTION right, and then choose only entry zones in that direction. The best way to get direction right is with **High Timeframe charts (HTF)**. See **Entry zones vs High Timeframe zones** below.

HTF zones do NOT have nearly the same requirements (criteria) as entry zones. The SD Zones indicator has separate presets for HTF Zones (**Lax**, for HTF charts) and Entry zones (**Medium**, **Strict or Extreme** for Entry charts). See **Zone Criteria Preset** and **Choosing a SettingsPreset** above.

Using HTF charts to determine trade direction is THE most important way to filter out entry zones that are likely to fail, and trade only ones that are likely to hold.

Why does SD Zones overlook some good zones?

As described repeatedly in this document, zones found by SD Zones MUST be reviewed and qualified by the eyes of a trader skilled in the supply/demand technique before they're considered for trading.

SD Zones and its workspaces are powerful tools to help find zones in RadarScreen which MIGHT be potential trade setups. But there is no magic in how it detects a zone: Leg-in, Base, Leg-out, then verify that the zone structure qualifies according to the selected Zone criteria. If SD Zones overlooks a zone or incorrectly detects one, it is usually because it failed to properly distinguish a leg bar from a base bar – which is a very hard thing to do in code. Just invalidate the zone in those cases, do not believe the indicator to know something you don't. See **Invalidating and restoring zones** under **Quick start: ZoneMenu** above.

There ARE situations, though, when SD Zones does a great job of spotting things that our eyes might overlook:

- When charts are squashed vertically, our eyes have a hard time distinguishing base bars from leg bars. However, the indicator is not fooled by the visual scaling. Sometimes you have to stretch the chart to see and review the zones it finds.
- When a zone is too shallow relative to current volatility (ATR) SD Zones will either skip the zone entirely OR adjust its height to make it more realistic. You will see the Outside line shifted further out in those cases. This is NOT a bug. If you are curious, this behavior can be adjusted with the Inputs **MinZoneHeightSkipTicks**, **MinZoneHeightSkipATR** and **MinZoneHeightAdjATR**. See **Input settings (complete list)** above.
- Sometimes small bars form what appears to be a base, but they are really part of a gap, and so they are not base bars at all. The real supply/demand (if there is one) is at the origin of the gap. SD Zones usually detects those situations correctly. Multiple base bars in the middle of a long move (whether or not they include gaps) are often less reliable as zones. They're what we call "sitting ducks".

What do dotted and dash-dot-dot zone lines mean?

Supply/demand zones are normally shown with solid **Inside** and **Outside lines**. As the zones are later revisited by price ("touched" or "almost touched"), SD Zones will change the line style of Inside lines from solid to dotted, to show that the zone is no longer "fresh". If a zone is revisited several times, or if price touches deeper into the zone, it will be **invalidated**, marked by its Outside line changing to a dash-dot-dot style.

The dash-dot-dot outside line is SD Zones telling you that the zone should no longer be trusted as entry zone!

Sometimes invalidated zones may turn out to work again later, but their probability of doing so are lower than fresh zones.

The reason these zones are kept on the chart is that they should still be observed as "opposing zones" which can affect the profit of trades in the opposite direction. If you prefer to keep your charts clean and not show invalidated zones (ones with dash-dot-dot Outside lines) you can change the **ShowInvalidatedZones** Input to False. The Settings panel will let you do this is just a few mouse clicks. See **Quick start: Settings panel** above.

If a zone is **broken** (traded though) its lines will be truncated at the bar that broke them, so that you can see what happened to it. The lines will then be removed on the next bar.

See **Line styles and zone "freshness"** above.

What's up with the merged zones?

SD Zones will merge (combine) zones that are close to each other – or when a new zone is formed wholly or partially inside a "further out" zone. Merged zones are shown with shared **Inside** and **Outside lines**, but showing individual **Base Hilites**. See **Visual chart settings** above for an example screen and descriptions of these terms.

Sometimes multiple zones can end up being merged, particularly on HTF charts which include DBR and RBD zones (not shown on entry charts by default). This can look confusing, but simply reflects the reality of a series of partially depleted or "stacked" zones, and is generally preferable to showing all the zones individually. Eventually price will clear them all away.

On entry charts you generally want to consider merged zones as one: You can enter at the Inside line of each individual zone, but your stop MUST be beyond the Outside line of the "outermost" zone to avoid stopout. This often makes the risk too high. All else being equal, "outer" zones are generally safer trades than "inner" zones.

On HTF charts, merged stacks of zones are of less concern, since HTF zones are not used as Entry zones anyway. Look more for the **space between HTF zones** rather than the zones themselves.

How close zones must be in order to be merged by SD Zones is controlled with the **MaxDistMergeZones** Input. **SettingsPreset=1** (Lax, HTF) merges zones more aggressively than **SettingsPreset=2**, **3** and **4** (Medium, Strict, Extreme). Regardless of **SettingsPreset**, **MaxDistMergeZones** can be changed to override the preset. **MaxDistMergeZones=0** disables merging altogether. See **Merged zones** above.

Supply/Demand lessons

Entry zones vs High Timeframe zones

A great entry zone in itself does NOT make a trade

Many supply/demand traders struggle to make consistent profits. They may have great trades off some zones, but too many of their zones fail and they get stopped out, even when they are seemingly good zones.

This has led some to conclude that supply/demand doesn't work as a trading strategy. But the flaw, really, is not paying proper attention to the "Big picture" price context at the time when price revisits an Entry zone.

The truth is that even great looking demand zones will fail when price is collapsing or downtrending. And even great looking supply zones will fail when price is rallying or uptrending, even though both may cause small pullbacks at first.

Many traders then start combining their choice of zones with other indicators to improve their win/loss ratio. This can help, but there is a better way: The secret to successful supply/demand trading is getting DIRECTION right, and then trade only entry zones in that direction. The best way to get direction right is with **High Timeframe charts (HTF)**. Supply/demand analysis on HTF charts can be used to determine a **preferred trade direction** and eliminate entry zones in the wrong direction, which are more likely to fail.

There are several schools on multiple timeframes, including some very complex ones. A simple but powerful one is this:

1. Select a High Timeframe chart (HTF) **approximately five times** the Entry Timeframe chart. For example, 60 min HTF charts for 5-10 min entry charts; Or 120 min HTF charts for 15-20 min Entry charts; Or Weekly HTF charts for Daily Entry charts.
2. Look for the **nearest supply and demand zones** on the HTF chart. These zones do NOT have to be perfect. In fact, **do not overlook "maybe" HTF zones** since they may still cause a sizeable reaction on the Entry chart, being on a higher timeframe. **Drop-Base-Rally** and **Rally-Base-Drop** zones (DBR and RBD) are acceptable, even though they are usually just a reaction to earlier zones. HTF zones provide the highest probability signal when they are "fresh", i.e. they have not seen prior revisits; but do NOT overlook them even when they aren't fresh.
3. Look **only for LONG trades** on the Entry chart (pullbacks to Demand zones) when price is moving **from HTF demand to HTF supply**. Look **only for SHORT trades** on the Entry chart (pullbacks to Supply zones) when price is moving **from HTF supply to HTF demand**. This is the **preferred trade direction**. Ignore Entry zones that do not align with it.
4. If price is **approaching its opposing HTF zone**, say if it has covered 75% of the distance from HTF demand to HTF supply, **stop trading in that direction** and wait for price to turn around from the HTF zone before trading the opposite direction. Sometimes it may turn **just before** reaching an HTF zone ("almost touch"). If price DOESN'T turn, and instead breaks through the HTF zone, direction usually remains the same until the next opposing HTF zone.
5. Ensure **plenty of distance** between opposing HTF zones. This determines the **profit margin** as well as the **probability** of the trade working out.

In essence, look ONLY for Entry zones that **join the larger moves predicted by HTF zones**. Imagine you're trading the HTF chart, just using the Entry chart to find an entry into the move on the HTF chart.

We refer to such trades as **trend trades**, since you always enter on a pullback to a supply/demand zone in the preferred trade direction (which is usually, but not always, the technical trend on the Entry chart). **See example charts below**.

This is a simplified description and doesn't factor in **HTF trend** or **zones on the next-higher timeframe chart**, both of which can significantly affect price movement. But it is simple and can be very effective.

Distinguishing Entry zones and HTF zones on charts

SD Zones has separate rules (presets) for **Entry zones** and **HTF zones** (See **Zone Criteria Preset** above) and uses different colors to distinguish them on charts: **Cyan for Entry zones** and **Magenta for HTF zones**. HTF zones can be shown on separate HTF charts OR overlaid on Entry charts. See **HTF zones overlaid on Entry charts** above and **the example charts below**.

*Examples of **Trend trades**: Shorting a supply zone (left) when price is moving DOWN from HTF supply towards HTF demand; and buying a demand zone (right) when price is moving UP from HTF demand towards HTF supply (ignoring the temporary downtrend on the Entry chart: Lower highs with lower lows). Entry and HTF zones have **different colors**: cyan for Entry zones, magenta for HTF zones. HTF zones can be **"overlaid"** (superimposed) on Entry charts, as shown here. Zoom in to see the zone lines and descriptions.*

When HTF direction is unclear

You will often find situations where the HTF zones on the HTF chart do NOT provide a clear direction signal according to the above rules. Say, the HTF zones are not fresh or otherwise unclear (so-called "twilight zones"); or the HTF zones are too close to each other or even overlapping (as can happen); or any number of countless other situations that do not provide a clear picture. The choice in those situations is one of the easiest in all of trading: **Sit on your hands, and do not trade setups that are doubtful**. Instead, move on to review the next potentially tradable zone in the RadarScreen list.

Look for the SPACE between HTF zones

Train your eyes to look for **the space between HTF zones** more so than the zones themselves. As long as we are merely looking for trend trades, the HTF zones are NOT meant to be Entry zones.

SD Zones uses very "lax" zone criteria when finding HTF zones, which often results in zones that make you scratch your head, wondering if they are really proper supply/demand zones. And the answer is **often they are NOT**, and that is deliberate. We want to find even "maybe" zones on HTF charts, since they may still cause a sizable move on Entry charts.

You will also find that SD Zones liberally merges HTF zones that are close to each other, drawing a single Inside line for the "innermost" merged zone, and a single Outside line for the "outermost" merged zone. This can be confusing at first, but is preferable to adding even more lines to the chart. If you dislike it, you can disable merging using the **Settings panel**. See **Quick start: Settings panel** above.

Trend vs Countertrend trades

The above rules are for **trend trades**: they join an existing move on HTF charts, which is often matched by an actual trend on the Entry chart. The classic "book definition" of trend is **higher lows with higher highs for UPTREND**, and **lower highs with lower lows for DOWNTREND**.

But sometimes a temporary trend forms on the entry chart which DOESN'T match the preferred trade direction signaled by the HTF zones, as shown in the above example to the right. Or the HTF zones signal a new direction (UP or DOWN) but an actual trend has not yet formed on the Entry chart. Simply following the HTF direction in those cases is recommended, which can yield some excellent trades, but also incur some losers. Or you can choose to filter them out as doubtful setups, which will avoid those losers, but also forgo some excellent trades. The choice is yours, depending on your trading style.

Some of the best supply/demand trades can be **countertrend trades** off **quality HTF zones**, when **quality Entry zones** are found inside them. This is the ONLY time to trade against the current HTF direction. Such trades often have impressive reward/risk ratios, but they are more aggressive and have other rules to ensure a high probability of working out. Among other things, you want to consider **trend on the HTF chart itself** AND zones on the **next-higher timeframe chart**.

Look for the EASY money

Watch how price ARRIVES into your Entry zone

Next to HTF direction, the most important consideration in qualifying a zone as a trade setup is ensuring sufficient **distance from your ENTRY zone to the OPPOSING zone** (or opposing support/resistance). This is the "easy money" and you want lots of it! You absolutely DON'T want opposing zones close to your Entry zone.

Requiring a distance of at least 3:1 relative to the height of the Entry zone is reasonable. More is better! Either way should your first target be comfortably before the opposing zone.

If you're trading in the right HTF direction, price often breaks through opposing zones (which we like) and keeps going to the opposing HTF zone. That's great for multiple targets, but is of course never guaranteed. So best to ensure plenty of distance between your Entry zone and the nearest opposing zone. Plenty of EASY money!

As with HTF zones, you want to be **Lax** when looking for opposing zones (certainly not **Strict**) to make sure nothing gets in the way of your targets.

There is no "best" timeframe or interval

Look "inside" zones to verify their structure

Some trading schools teach the importance of sticking to a single timeframe or interval. Consistency is indeed important in trading, but with supply/demand we are simply looking for "footprints" of institutions possibly accumulating or distributing. Sometimes that footprint isn't clear on a 5 min chart, but is there on a 10 min chart, simply because of how the bars line up.

So you absolutely SHOULD consider several timeframes/intervals when looking for zones!

Our solution is to have RadarScreen symbol rows scanning for zones on several different intervals of the same symbol (say 5, 10, 15, 20 min for day trading). If there is accumulation or distribution at a given price level, chances are the pattern we're looking for will be there on at least one of these intervals. Now you just have to qualify it on a chart and match it to the **preferred trade direction** using HTF charts.

Note that this is NOT what is meant by "Multiple Timeframes", which refers to an Entry Timeframe and one or several High Timeframes for "Big Picture" price context. This is just looking at multiple timeframes/intervals to find footprints of institutions accumulating/distributing (Entry zones).

Once you have found a good Entry zone (say on a 10 min chart) it is also important to look "inside it" on a smaller interval (say 5 min) to see if the internal structure is still good AND whether the zone extends higher or lower than what is apparent on the 10 min chart. Based on this, you can adjust your zone higher or lower (entry and stop levels) to improve your probability of BOTH getting filled AND avoiding stopout.

SD Zones doesn't perform this kind of "deep scanning". It's not impossible to do in code, but would be very slow for TradeStation to process, and thus defeat the purpose of the indicator.