Exit Logic & Pyramiding Configuration Guide

# Overview

The backtesting engine uses a modular exit system where you can enable/disable any combination of exit conditions. All strategies must use the modular format with exit\_conditions array and exit\_parameters object.

# Exit Conditions

## Available Exit Types

|  |  |  |
| --- | --- | --- |
| **Exit Condition** | **Description** | **Key Parameter** |
| percentage\_stop | Fixed percentage stop loss | stop\_loss\_pct |
| atr\_stop | ATR-based dynamic stop loss | stop\_loss\_atr\_multiplier |
| take\_profit | Fixed percentage take profit | take\_profit\_pct |
| trailing\_stop | Trailing stop loss | trailing\_stop\_loss\_pct |
| ma\_crossover | Exit on EMA 9/15 crossover | N/A (uses built-in EMAs) |
| price\_below\_ma | Exit when price below EMA 9 | N/A (uses built-in EMA 9) |
| vix\_spike | Exit on VIX spike from entry | vix\_spike\_pct |
| time\_limit | Maximum holding period | max\_days |

## Basic Configuration

Basic exit setup with multiple conditions:

{  
 "exit\_conditions": ["percentage\_stop", "take\_profit", "trailing\_stop"],  
 "exit\_parameters": {  
 "stop\_loss\_pct": 2.0,  
 "take\_profit\_pct": 4.0,  
 "trailing\_stop\_loss\_pct": 1.5  
 }  
}

## ATR Stop Loss Setup

ATR stops require the ATR indicator. The system auto-adds it if missing:

{  
 "exit\_conditions": ["atr\_stop", "take\_profit"],  
 "exit\_parameters": {  
 "stop\_loss\_atr\_multiplier": 2.0,  
 "atr\_period": 14,  
 "take\_profit\_pct": 3.0  
 }  
}

# Pyramiding System

## Basic Pyramiding Setup

Add pyramiding configuration via position\_management:

{  
 "exit\_conditions": ["percentage\_stop", "take\_profit"],  
 "exit\_parameters": {  
 "stop\_loss\_pct": 1.5,  
 "take\_profit\_pct": 4.0  
 },  
 "position\_management": {  
 "type": "pyramiding",  
 "max\_levels": 3,  
 "scaling\_factor": 2.0  
 }  
}

## Pyramiding Parameters

|  |  |  |
| --- | --- | --- |
| Parameter | Description | Default |
| type | Must be "pyramiding" | "pyramiding" |
| max\_levels | Maximum number of entries | 4 |
| scaling\_factor | Position size multiplier per level | 2.0 |

## Position Scaling

With scaling\_factor = 2.0:

* Level 1: 1.0 units
* Level 4: 8.0 units total

# Notes

* Long strategies: Use "position\_type": "long"
* Short strategies: Use "position\_type": "short" (signals automatically inverted)
* All pyramid levels close together (no partial exits)