Stock Ranking System

Complete Technical Documentation

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Score	Range	Weight	Purpose
RS Rating	1-99	25%	Relative strength vs market
Momentum Score	0-100	25%	Price momentum across timeframes
Trend Template	0-8	25%	Mark Minervini's trend criteria
Technical Score	0-100	25%	Technical indicator health
Composite Score	0-100	-	Weighted average of above

1. RS Rating (Relative Strength Rating)

Purpose: Measures how well a stock has performed relative to ALL other stocks in the universe over the past 12 months.

Range: 1 to 99 (percentile ranking)

Calculation Method:

1. Calculate 12-month price return for each stock
2. Rank all stocks by their 12-month return (best to worst)
3. Convert rank to percentile scale (1-99)

Formula:

```
12-Month Return = ((Current Price - Price 12 months ago) / Price 12 months ago) × 100
```

```
RS Rating = (Stock's Rank / Total Stocks) × 99
```

Interpretation:

RS Rating	Meaning
99	Top 1% performer - Stock outperformed 99% of all stocks
90	Top 10% performer - Excellent relative strength
70	Top 30% performer - Good relative strength
50	Median performer - Average
30	Bottom 30% - Weak relative strength
1	Bottom 1% - Worst performers

Example:

If Stock A gained +45% in 12 months and ranks 50th out of 500 stocks, its RS Rating = (50/500) × 99 = 90

2. Momentum Score

Purpose: Measures price momentum across multiple timeframes, giving more weight to medium-term performance while still considering short and long-term trends.

Range: 0 to 100 (normalized percentile)

Timeframes and Weights:

Timeframe	Trading Days	Weight	Rationale
1 Week	5 days	5%	Short-term noise filter
1 Month	21 days	15%	Recent momentum
3 Months	63 days	30%	Primary momentum signal
6 Months	126 days	30%	Primary momentum signal
12 Months	252 days	20%	Long-term trend confirmation

Formula:

```
Raw Score = (1W_return × 0.05) + (1M_return × 0.15) + (3M_return × 0.30) +
(6M_return × 0.30) + (12M_return × 0.20)
```

```
Momentum Score = Percentile rank of Raw Score among all stocks (0-100)
```

Example Calculation:

Timeframe	Return	Weight	Contribution
1 Week	+2%	× 0.05	= 0.10
1 Month	+8%	× 0.15	= 1.20
3 Months	+15%	× 0.30	= 4.50
6 Months	+25%	× 0.30	= 7.50
12 Months	+40%	× 0.20	= 8.00
Raw Score			**= 21.30**

If this raw score of 21.30 ranks in the top 15% of all stocks, Momentum Score = 85

3. Trend Template Score (Minervini Criteria)

Purpose: Evaluates whether a stock is in a proper Stage 2 uptrend, based on Mark Minervini's 8-point checklist from 'Trade Like a Stock Market Wizard'.

Range: 0 to 8 (count of criteria met)

The 8 Criteria:

#	Condition	What It Checks
1	Price > 150-day SMA	Stock is above medium-term average
2	Price > 200-day SMA	Stock is above long-term average
3	150-day SMA > 200-day SMA	Medium-term trend stronger than long-term
4	200-day SMA trending UP	Long-term trend is rising (checked over 30 days)
5	50-day SMA > 150-day SMA	Short-term trend above medium-term
6	50-day SMA > 200-day SMA	Short-term trend above long-term
7	Price > 50-day SMA	Stock is above short-term average
8	Price within 25% of 52-week high AND 30%+ above 52-week low	Near highs, far from lows

Score Interpretation:

Score	Assessment	Trading Implication
8	Perfect Trend Template	Ideal breakout candidate - Stage 2 uptrend
6-7	Strong Uptrend	Good candidate for momentum trading
4-5	Moderate Trend	Developing - watch for improvement
2-3	Weak Trend	Not recommended for long positions
0-1	No Uptrend	Avoid or consider for short positions

Visual Representation of Perfect Score (8/8):

A stock with a perfect trend template shows: • Price trading near 52-week highs (within 25%) • Price well above all moving averages • Moving averages "stacked" bullishly: 50 > 150 > 200 • All moving averages trending upward • Price far above 52-week lows (30%+ above)

4. Technical Score

Purpose: Measures overall technical health by evaluating price position relative to key moving averages and their alignment.

Range: 0 to 100

Components (4 × 25 points each):

Component	Max Points	Description
Price vs 50-SMA	25	Short-term position relative to 50-day average
Price vs 150-SMA	25	Medium-term position relative to 150-day average
Price vs 200-SMA	25	Long-term position relative to 200-day average
SMA Alignment	25	Bonus for bullish moving average stack
TOTAL	**100**	

Price vs SMA Scoring Logic:

The scoring rewards stocks that are above their moving averages but penalizes those that are too extended:

Position	Score (out of 25)
10-20% above SMA	25 points (optimal zone)
0-10% above SMA	12.5 to 25 points (increasing)
20%+ above SMA	25 down to 12.5 (overextended penalty)
0-10% below SMA	12.5 to 0 points
10%+ below SMA	Near 0 points

SMA Alignment Bonus (25 points max):

Condition	Points
50-day SMA > 150-day SMA	+10 points (40%)
150-day SMA > 200-day SMA	+10 points (40%)
50-day SMA > 200-day SMA	+5 points (20%)

5. Composite Score (Final Rating)

Purpose: Combines all four individual scores into a single comprehensive ranking number that captures relative strength, momentum, trend quality, and technical position.

Range: 0 to 100

Step 1: Normalize All Scores to 0-100

Score	Original Range	Normalization
RS Rating	1-99	Use as-is (already 0-100 scale)
Momentum Score	0-100	Use as-is
Trend Template	0-8	(Score ÷ 8) × 100
Technical Score	0-100	Use as-is

Step 2: Apply Equal Weights

```
Composite = (RS × 0.25) + (Momentum × 0.25) + (Trend Template × 0.25) +
(Technical × 0.25)
```

Step 3: Rank All Stocks

Stocks are ranked by Composite Score from highest to lowest. Percentile is calculated based on rank.

Complete Example:

Score	Raw Value	Normalized	Weight	Contribution
RS Rating	85	85	× 0.25	= 21.25
Momentum	72	72	× 0.25	= 18.00
Trend Template	7/8	87.5	× 0.25	= 21.88
Technical	68	68	× 0.25	= 17.00
COMPOSITE				**= 78.13**

Composite Score Interpretation:

Range	Assessment	Action
90-100	Exceptional	Top-tier market leader - Prime buy candidate
75-90	Strong	Quality stock - Good for breakout trades
50-75	Average	Watch but don't chase - Wait for improvement
25-50	Weak	Avoid for long positions
0-25	Very Weak	Avoid or consider for short positions

Summary: How Scores Work Together

The four component scores capture different aspects of stock quality:

• **RS Rating** - Answers: 'Is this stock outperforming the market?' A stock with RS 90+ is beating 90% of all stocks.

• **Momentum Score** - Answers: 'Is the price momentum accelerating?' Weighs recent vs. long-term gains.

• **Trend Template** - Answers: 'Is the stock in a proper Stage 2 uptrend?' Uses Minervini's proven criteria.

• **Technical Score** - Answers: 'Is the stock in a healthy technical position?' Not too extended, proper MA alignment.

Why Equal Weights?

The 25% equal weighting ensures no single factor dominates. A stock needs to be strong across multiple dimensions to rank highly. This prevents:

• A stock with great momentum but poor trend structure from ranking too high

• A stock with high RS but overextended technicals from ranking too high

• A one-dimensional strength from masking weaknesses

Best Practices for Using Rankings:

- Focus on stocks with Composite Score > 75 for long positions
- Use Trend Template = 8 as a filter for breakout candidates
- Combine with volume analysis for confirmation
- Re-calculate daily after market close for fresh rankings
- Compare a stock's current rank to its historical rank for trend changes