

```
{-----  
-----  
Copyright (c) Jonathan Kinlay 2017  
-----  
-----}
```

```
{ Strategy inputs }  
Inputs: NL1 (4),           { Day of week (0 to 6 for Sunday to  
Saturday), long trades }  
        NS1 (3),           { Day of week (0 to 6 for Sunday to  
Saturday), short trades }  
        EntryPctL (3.3273), { Value of percentage entry (stop/limit),  
long trades }  
        TargPctL (5.294),   { Value of percentage exit target, long  
trades }  
        MMStopSzL (0.05000), { Value of fixed size money management  
stop per share/contract, long trades }  
        NBarEnS1 (8),       { Indicator look-back length (bars),  
short trades }  
        NATRS (97),         { Indicator look-back length (bars),  
short trades }  
        EntFrS (1.1182),    { Multiple of price difference (e.g.,  
ATR); entry, short trades }  
        TargFrS (4.3631),   { Multiple of price difference (e.g.,  
ATR); exit, short trades }  
        NBarExS1 (67),      { Number of bars from entry for market  
exit if profitable, short trades }  
        PSPParam (100000.00), { Position sizing parameter value }  
        RoundPS (true),     { Round-to-nearest (true/false) }  
        RoundTo (1),        { Round-to position size value }  
        MinSize (1),        { Minimum allowable position size }  
        SizeLimit (100000); { Maximum allowable position size }
```

```
{ Variables for average true range for entry and exit orders }  
Var:   ATRS (0);
```

```
{ Variables for entry and exit prices }  
Var:   EntPrL (0),  
        EntPrS (0),  
        TargPrL (0),  
        TargPrS (0),  
        LStop (0);
```

```
{ Variables for entry and exit conditions }  
Var:   VarL1 (0),  
        VarS1 (0),  
        VarS2 (0),  
        VarS3 (0),  
        EntCondL (false),  
        EntCondS (false),
```

```

        ExCondS    (false);

{ Variables for position sizing }
Var:    NSharesL (0),
        NSharesS (0);

{ Average true range }
ATRS = AvgTrueRange(NATRS);

{ Entry prices }
EntPrL = (1 + EntryPctL/100.0) * C;
EntPrS = TriAverage(L, NBarEnS1) - EntFrS * ATRS;

{ Entry and exit conditions }
VarL1 = DayOfWeek(date);
VarS1 = DayOfWeek(date);
VarS2 = LowD(0);
VarS3 = HighD(0);
EntCondL = false; {VarL1 <= NL1;}
EntCondS = VarS1 > NS1;
ExCondS = VarS2 >= VarS3;

{ Position sizing calculations }
NSharesL = PSPParam/AbsValue(EntPrL * BigPointValue);
NSharesS = PSPParam/AbsValue(EntPrS * BigPointValue);

If RoundPS and RoundTo > 0 then begin
    NSharesL = IntPortion(NSharesL/RoundTo) * RoundTo;
    NSharesS = IntPortion(NSharesS/RoundTo) * RoundTo;
end;

NSharesL = MaxList(NSharesL, MinSize);
NSharesL = MinList(NSharesL, SizeLimit);
NSharesS = MaxList(NSharesS, MinSize);
NSharesS = MinList(NSharesS, SizeLimit);

{ Entry orders }
If MarketPosition = 0 and EntCondL then begin
    Buy("EnStop-L") NSharesL shares next bar at EntPrL stop;
end;

If MarketPosition = 0 and EntCondS then begin
    Sell short("EnStop-S") NSharesS shares next bar at EntPrS stop;
end;

{ Exit orders, long trades }
If MarketPosition = 1 then begin
    If BarsSinceEntry = 0 then begin
        LStop = EntryPrice - MMStopSzL/BigPointValue;
    end;
end;

```

```
Sell("ExStop-L") next bar at LStop stop;

TargPrL = (1 + TargPctL/100.0) * EntryPrice;
Sell("ExTarg-L") next bar at TargPrL limit;
end;

{ Exit orders, short trades }
If MarketPosition = -1 then begin
    TargPrS = EntryPrice - TargFrS * TrueRange;
    Buy to cover("ExTarg-S") next bar at TargPrS limit;

    If ExCondS or (BarsSinceEntry >= NBarExS1 and C < EntryPrice) then
        Buy to cover("ExMark-S") next bar at market;
end;
```