

## NeuroShell Trader

The Australian Dollar Intermarket Bollinger Band Divergence System described by Markos Katsanos can be implemented in the NeuroShell Trader by combining a few of the NeuroShell Trader's over 800 indicators. To create the Bollinger Band Divergence indicator described in the article, select '**New Indicator ...**' from the '**Insert**' menu and use the Indicator Wizard to create the following indicators:

SECBOL: Add2( 1, Divide( Sub( Close, BBLow( Close, 30, 2)), Add2( Sub( BBHigh( Close, 30, 2), BBLow( Close, 30, 2)), 0.0001 )))

DIVERG: Multiply2( Divide( Sub(SECBOL( XAU,30,2), SECBOL( Close, 30, 2) ), SECBOL( Close, 30, 2) ), 100 )

Also use the Indicator Wizard to create the following intermediate indicators that will be used in the trading system:

DIV2: DIVERG( XAU, Close, 30, 2)

DIV3: DIVERG( CRB, Close, 30, 2)

DIV1MAX: Max2( DIV1, DIV2 )

DIV1MIN: Min2( DIV1, DIV2 )

To create the Australian Dollar Intermarket Bollinger Band Divergence System described in the article, select '**New Trading Strategy ...**' from the '**Insert**' menu and enter the following in the appropriate locations of the Trading Strategy Wizard:

Buy Long when ONE of the following conditions is true:

And2( And4( A>B( Maximum(DIV1MAX, 3), 10),  
A<B( DIV1MAX, Lag(DIV1MAX, 1)),  
A>B( %Change( Close, 2), 0),  
A>B( Close, Multiply2( 1.007, Minimum( Low, 4)))),  
Or2( A>B( Momentum( MovAvg( Sub(100,YTCc1), 40), 1), 0),  
A>B( Momentum( MovAvg( Sub(100,YBAc1), 40), 1), 0)))

And2( And4( A>B( DIV1MAX, 40),  
A>B( Add2( DIV2, DIV3), 80),  
A<B( DIV1MAX,Lag( DIV1MAX, 1)),  
A>B( Close, Lag( Close, 1)))  
A>B( Close, Multiply2( 1.007, Minimum( Low, 4))))

And2 ( CrossAbove ( MovAvg( Close, 15), MovAvg( Close, 50) ),  
A>B( Momentum( MovAvg( Sub(100,YBAc1), 40), 1), 0 ) )

Sell Long when ONE of the following conditions is true:

And2( CrossAbove( MACDSignal( Close, 9, 12, 26), MACD( Close, 12, 26) ),  
A>B( Maximum( MACD( Close, 12, 26), 5), Lag(Maximum(MACD( Close, 12, 26), 50),  
5)))

And3( A<B( DIV1MIN, -30 ),  
Or2 ( A<B( %Change(XAU,1), -0.5 ),  
A<B( %Change(CRB,1),-0.5 ))  
A<B( Close, Multiply2( 1.007, Maximum(High,4))))

And4( A<B( DIV1MIN, 0 ),  
A<B( %Change( EURJPY, 2), -1 ),  
A<B( Close, Multiply2( 1.007, Maximum(High,4))),  
A<B( Momentum( MovAvg( EURJPY, 40), 1), 0 ) )

Sell Short when ONE of the following conditions is true:

And2( And4( A<B( Minimum(DIV1MAX, 3), -10),  
A>B( DIV1MAX, Lag(DIV1MAX, 1)),  
A<B( %Change( Close, 2), 0),  
A<B( Close, Multiply2( 1.007, Maximum( High, 4))))),  
Or2( A<B( Momentum( MovAvg( Sub(100,YTCc1), 40), 1), 0),  
A<B( Momentum( MovAvg( Sub(100,YBac1), 40), 1), 0)))

And2( And4( A<B( DIV1MAX, -20),  
A<B( Add2( DIV2, DIV3), -40),  
A>B( DIV1MAX,Lag( DIV1MAX, 1)),  
A<B( Close, Lag( Close, 1)))  
A<B( Close, Multiply2( 1.007, Maximum( High, 4))))

And2( CrossBelow ( MovAvg( Close, 15), MovAvg( Close, 50) ),  
A<B( Momentum( MovAvg( Sub(100,YBac1), 40), 1), 0 ) )

Cover Short when ONE of the following conditions is true:

And2( CrossBelow( MACDSignal( Close, 9, 12, 26), MACD( Close, 12, 26) ),  
A<B( Minimum( MACD( Close, 12, 26), 5), Lag(Minimum(MACD( Close, 12, 26), 50), -  
5)))

And3( A>B( DIV1MAX, 30 ),  
Or2( A>B( %Change(XAU,1), 0.5 ),  
A>B( %Change(CRB,1), 0.5 ))  
A>B( Close, Multiply2( 1.007, Maximum(High,4))))

If you have the NeuroShell Trader Professional, you can also choose whether or not the system parameters should be optimized. After backtesting the trading strategy, use the **‘Detailed Analysis ...’** button to view the backtest and trade by trade statistics for the strategy.

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Figure A: NeuroShell AUD Intermarket BB Divergence System.

