

# Package: lcyanalysis (via r-universe)

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**Type** Package

**Title** Stock Data Analysis Functions

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**Depends** R (>= 3.3)

**Description** Analysis of stock data ups and downs trend, the stock technical analysis indicators function have trend line, reversal pattern and market trend.

**Imports** quantmod,TTR,stats,xts,zoo

**License** GPL-3

**NeedsCompilation** no

**LazyData** true

**RoxygenNote** 7.0.2

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bearpower	<i>bear power technical analysis function</i>
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### Description

bear power technical analysis function is to analyze the reversal pattern conform to the downward trend and bear market of stock data

### Usage

```
bearpower(h, down, day)
```

### Arguments

h	an stock data
down	an rsi down horizon value
day	Days of data shown

### Details

use RSI analysis of the strength of the stock market trend, analyze trends conform to bear power, and RSI function need library 'TTR'

### Value

an analysis of stock data for bear power technical analysis indicators

### Author(s)

Chun-Yu Liu <john401528@gmail.com>

### Examples

```
## Not run:
library(quantmod)
aapl<-getSymbols("AAPL",src="yahoo",auto.assign=FALSE)
bearpower(aapl,40,5)

## End(Not run)
```

---

`bullpower`*bull power technical analysis function*

---

**Description**

bull power technical analysis function is to analyze the reversal pattern conform to the rising trend and bull market of stock data

**Usage**

```
bullpower(h, top, day)
```

**Arguments**

<code>h</code>	an stock data
<code>top</code>	an rsi rise horizon value
<code>day</code>	Days of data shown

**Details**

use RSI analysis of the strength of the stock market trend, analyze trends conform to bull power, and RSI function need library 'TTR'

**Value**

an analysis of stock data for bull power technical analysis indicators

**Author(s)**

Chun-Yu Liu <john401528@gmail.com>

**Examples**

```
## Not run:  
library(quantmod)  
aapl<-getSymbols("AAPL",src="yahoo",auto.assign=FALSE)  
bullpower(aapl,60,5)  
  
## End(Not run)
```

---

downtrend                      *downtrend technical analysis function*

---

### **Description**

Down trend line technical analysis function is to analyze the downward trend of stock data

### **Usage**

```
downtrend(h, day, num)
```

### **Arguments**

h	an stock data
day	the number of days to analysis the data
num	select pivot calculation method 1: $UP1 <- (2 * center) - Lo(h)$ . 2: $UP2 <- center + (UP1 - DOWN1)$ .

### **Details**

use the down\_function analysis data to analysis the downward trend line

### **Value**

an analysis of stock data for down trend technical analysis indicators

### **Author(s)**

Chun-Yu Liu <john401528@gmail.com>

### **Examples**

```
## Not run:  
library(quantmod)  
aapl<-getSymbols("AAPL",src="yahoo",auto.assign=FALSE)  
downtrend(aapl,20,1)  
  
## End(Not run)
```

---

down\_function            *down trend line down function*

---

### Description

Down trend line analysis of the down\_function is to sort and analysis the stock data

### Usage

```
down_function(h,day,num)
```

### Arguments

h	an stock data
day	the number of days to analysis the data
num	select pivot calculation method 1: $UP1 <- (2 * center) - Lo(h)$ . 2: $UP2 <- center + (UP1 - DOWN1)$ .

### Details

down\_function is to sort the stock data by the set number of days and to filter the data of rising trend

### Value

an analysis of stock data for down function

### Author(s)

Chun-Yu Liu <john401528@gmail.com>

### Examples

```
## Not run:  
library(quantmod)  
aapl<-getSymbols("AAPL",src="yahoo",auto.assign=FALSE)  
down_function(aapl,20,1)  
  
## End(Not run)
```

---

`m_top`*m top technical analysis function*

---

**Description**

m top technical analysis function is to analyze the reversal pattern conform to the downward trend of stock data

**Usage**

```
m_top(h, top, down, month, day)
```

**Arguments**

h	an stock data
top	an rsi rise horizon value
down	an rsi down horizon value
month	set the length between the start and end points. Unit:month
day	check the correctness of the end point, set the length between the end and check points. Unit:day

**Details**

use RSI analysis of the strength of the stock market trend, analyze trends conform to m top, and RSI function need library 'TTR'

**Value**

an analysis of stock data for m top technical analysis indicators

**Note**

the month value must be more than one month

**Author(s)**

Chun-Yu Liu <john401528@gmail.com>

**Examples**

```
## Not run:  
library(quantmod)  
aapl<-getSymbols("AAPL",src="yahoo",auto.assign=FALSE)  
m_top(aapl,60,40,4,20)  
  
## End(Not run)
```

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uptrend	<i>uptrend technical analysis function</i>
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**Description**

Up trend line technical analysis function is to analyze the rising trend of stock data

**Usage**

```
uptrend(h, day, num)
```

**Arguments**

h	an stock data
day	the number of days to analysis the data
num	select pivot calculation method 1: DOWN1<-(2*center)-Hi(h). 2: DOWN2<-center-(UP1-DOWN1).

**Details**

use the up\_function analysis data to analysis the rising trend line

**Value**

an analysis of stock data for up trend technical analysis indicators

**Author(s)**

Chun-Yu Liu <john401528@gmail.com>

**Examples**

```
## Not run:  
library(quantmod)  
aapl<-getSymbols("AAPL",src="yahoo",auto.assign=FALSE)  
uptrend(aapl,20,1)  
  
## End(Not run)
```

---

up\_function                    *up trend line up function*

---

### Description

Up trend line analysis of the up\_function is to sort and analysis the stock data

### Usage

```
up_function(h,day,num)
```

### Arguments

h	an stock data
day	the number of days to analysis the data
num	select pivot calculation method 1: DOWN1<-(2*center)-Hi(h). 2: DOWN2<-center-(UP1-DOWN1).

### Details

up\_function is to sort the stock data by the set number of days and to filter the data of downward trend

### Value

an analysis of stock data for up function

### Author(s)

Chun-Yu Liu <john401528@gmail.com>

### Examples

```
## Not run:  
library(quantmod)  
aapl<-getSymbols("AAPL",src="yahoo",auto.assign=FALSE)  
up_function(aapl,20,1)  
  
## End(Not run)
```



---

`v_bottom`*v bottom technical analysis function*

---

**Description**

V bottom technical analysis function is to analyze the rising trend of stock data

**Usage**

```
v_bottom(h, top, down, month, day)
```

**Arguments**

h	an stock data
top	an rsi rise horizon value
down	an rsi down horizon value
month	set the length between the start and end points. Unit:month
day	check the correctness of the end point, set the length between the end and check points. Unit:day

**Details**

use RSI analysis of the strength of the stock market trend, analyze trends conform to v bottom, and RSI function need library 'TTR'

**Value**

an analysis of stock data for v bottom technical analysis indicators

**Author(s)**

Chun-Yu Liu <john401528@gmail.com>

**Examples**

```
## Not run:  
library(quantmod)  
aapl<-getSymbols("AAPL",src="yahoo",auto.assign=FALSE)  
v_bottom(aapl,60,40,3,20)  
  
## End(Not run)
```

---

`v_top`*v top technical analysis function*

---

**Description**

V top technical analysis function is to analyze the downward trend of stock data

**Usage**

```
v_top(h, top, down, month, day)
```

**Arguments**

h	an stock data
top	an rsi rise horizon value
down	an rsi down horizon value
month	set the length between the start and end points. Unit:month
day	check the correctness of the end point, set the length between the end and check points. Unit:day

**Details**

use RSI analysis of the strength of the stock market trend, analyze trends conform to v top, and RSI function need library 'TTR'

**Value**

an analysis of stock data for v top technical analysis indicators

**Author(s)**

Chun-Yu Liu <john401528@gmail.com>

**Examples**

```
## Not run:  
library(quantmod)  
aapl<-getSymbols("AAPL",src="yahoo",auto.assign=FALSE)  
v_top(aapl,60,40,3,20)  
  
## End(Not run)
```

---

w\_bottom                      *w bottom technical analysis function*

---

### Description

w bottom technical analysis function is to analyze the reversal pattern conform to the rising trend of stock data

### Usage

```
w_bottom(h, top, down, month, day)
```

### Arguments

h	an stock data
top	an rsi rise horizon value
down	an rsi down horizon value
month	set the length between the start and end points. Unit:month
day	check the correctness of the end point, set the length between the end and check points. Unit:day

### Details

use RSI analysis of the strength of the stock market trend, analyze trends conform to w bottom, and RSI function need library 'TTR'

### Value

an analysis of stock data for w bottom technical analysis indicators

### Note

the month value must be more than one month

### Author(s)

Chun-Yu Liu <john401528@gmail.com>

### Examples

```
## Not run:  
library(quantmod)  
aapl<-getSymbols("AAPL",src="yahoo",auto.assign=FALSE)  
w_bottom(aapl,60,40,2,20)  
  
## End(Not run)
```

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