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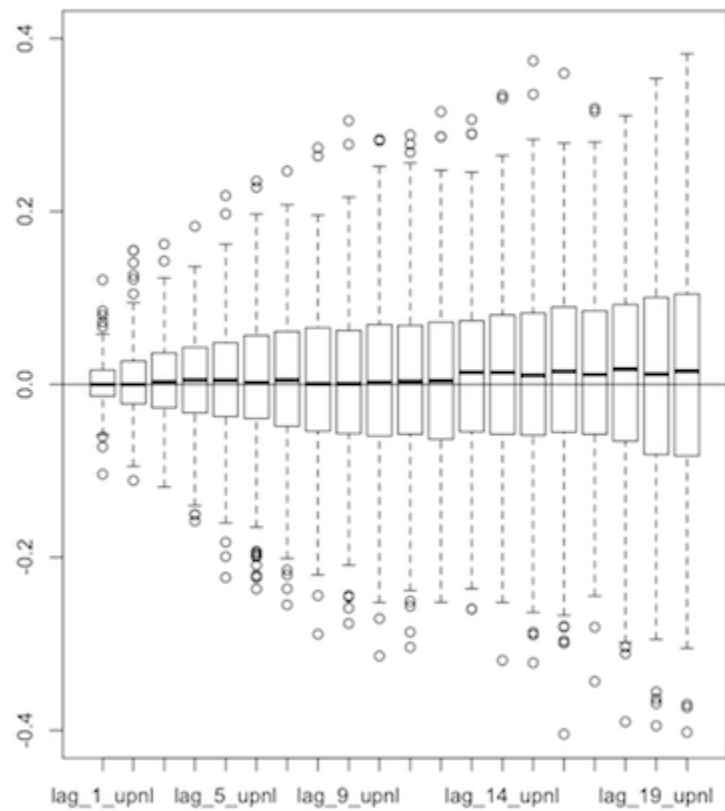
# A Shortcut for Strategy Analysis

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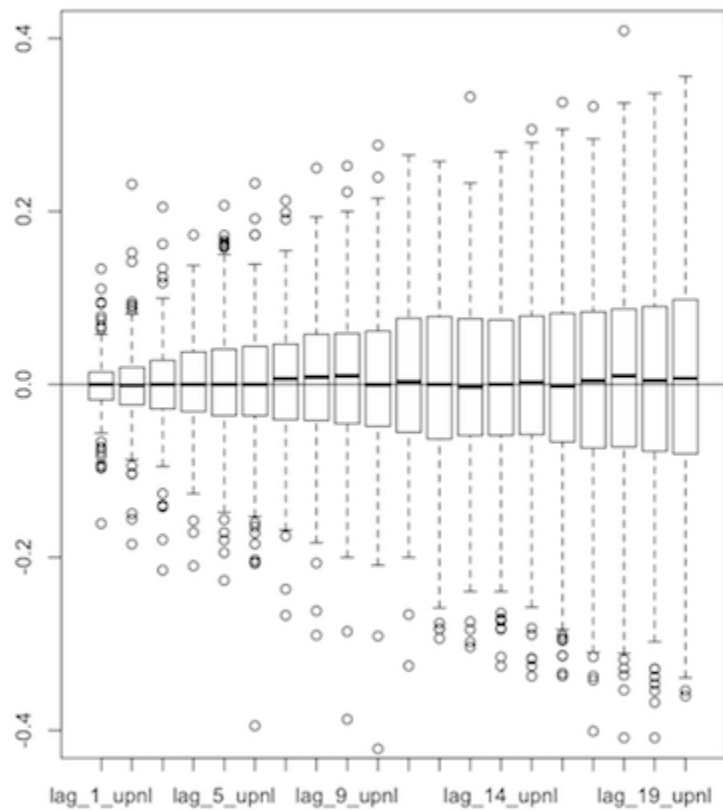
Kent Hoxsey  
[khoxsey@gmail.com](mailto:khoxsey@gmail.com)  
May 16, 2014

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Buys



Sells

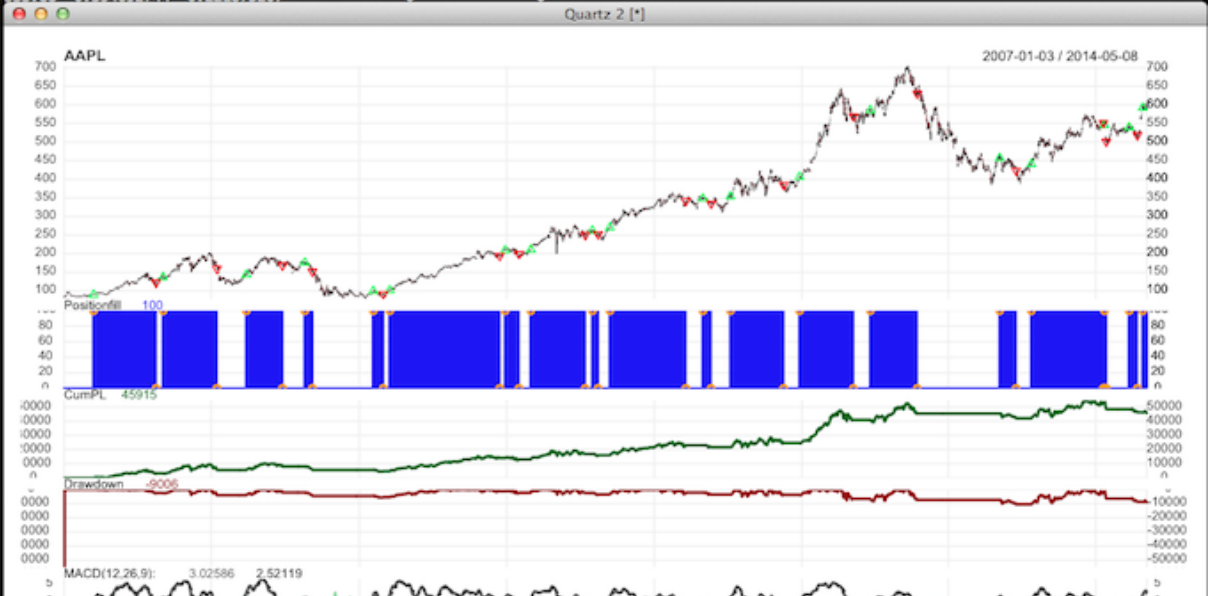


```

> ##### PLACE THIS BLOCK AT END OF DEMO SCRIPT #####
> # book = getOrderBook(port)
> # stats = tradeStats(port)
> # rets = PortfReturns(acct)
> #####
> tail(mktdata,40)

```

	AAPL.Open	AAPL.High	AAPL.Low	AAPL.Close	AAPL.Volume	AAPL.Adjusted	macd._	signal._	signal.gt.zero	signal.lt.zero
2014-03-13	537.44	539.66	529.16	530.65	9205100	527.70	0.063396761	-0.061948337	0	0
2014-03-14	528.79	530.89	523.00	524.69	8471400	521.78	-0.022984446	-0.070155559	0	0
2014-03-17	527.70	529.97	525.85	526.74	7126600	523.81	-0.075336637	-0.071191774	0	0
2014-03-18	525.90	531.97	525.20	531.40	7487400	528.45	-0.045362100	-0.066025839	0	0
2014-03-19	532.26	536.24	529.00	531.26	8027000	528.31	-0.023473768	-0.057515425	0	0
2014-03-20	529.89	532.67	527.35	528.70	7442800	525.76	-0.044578962	-0.054928132	0	0
2014-03-21	531.93	533.75	526.33	532.87	13358000	529.91	0.002135009	-0.043515584	0	0
2014-03-24	538.42	540.50	535.06	539.19	12703600	536.20	0.133583002	-0.000095803	0	0
2014-03-25	541.50	545.75	539.59	544.99	10081900	541.96	0.321546969	0.057832752	1	0
2014-03-26	546.52	549.00	538.86	539.78	10706000	536.78	0.386828792	0.123631960	0	0
2014-03-27	540.02	541.50	535.12	537.46	7929700	534.47	0.398826274	0.178670822	0	0
2014-03-28	538.32	538.94	534.25	536.86	7163000	533.88	0.394692744	0.221875207	0	0
2014-03-31	539.23	540.81	535.93	536.74	6823900					
2014-04-01	537.76	541.87	536.77	541.65	7170000					
2014-04-02	542.38	543.48	540.26	542.55	6443600					
2014-04-03	541.39	542.50	537.64	538.79	5798000					
2014-04-04	539.81	540.00	530.58	531.82	9830400					
2014-04-07	528.02	530.90	521.89	523.47	10351800					
2014-04-08	525.19	526.12	518.70	523.44	8710300					
2014-04-09	522.64	530.49	522.02	530.32	7363200					
2014-04-10	530.68	532.24	523.17	523.48	8559000					
2014-04-11	519.00	522.83	517.14	519.61	9704200					
2014-04-14	521.90	522.16	517.21	521.68	7345500					
2014-04-15	520.27	521.64	511.33	517.96	9517500					
2014-04-16	518.05	521.09	514.14	519.01	7670200					
2014-04-17	520.00	527.76	519.20	524.94	10158100					
2014-04-21	525.34	532.14	523.96	531.17	6519600					
2014-04-22	528.31	531.83	526.50	531.70	7234400					
2014-04-23	529.06	531.13	524.45	524.75	14105000					
2014-04-24	568.21	570.00	560.73	567.77	27139700					
2014-04-25	564.53	571.99	563.96	571.94	13938400					
2014-04-28	572.80	595.75	572.55	594.09	23910200					
2014-04-29	593.74	595.98	589.51	592.33	12049200					
2014-04-30	592.64	599.43	589.80	590.09	16308600					
2014-05-01	592.00	594.80	586.36	591.48	8716000					
2014-05-02	592.34	594.20	589.71	592.58	6839000					
2014-05-05	590.14	601.00	590.00	600.96	10252400					
2014-05-06	601.80	604.41	594.41	594.41	13377300					
2014-05-07	595.25	597.29	587.73	592.33	10102300					
2014-05-08	588.25	594.41	586.40	587.99	8208800					



# TTR and sigThreshold

---

```
x <- Ad(mktdata)
macd <- MACD(x, nFast=5,nSlow=13,signal=9)
signal.gt.zero <- sigThreshold('signal.gt.zero', macd, 'macd',
                               relationship='gt', cross=TRUE)
signal.lt.zero <- sigThreshold('signal.lt.zero', macd, 'macd',
                               relationship='lt', cross=TRUE)
x <- cbind(x, macd, signal.gt.zero, signal.lt.zero)
```

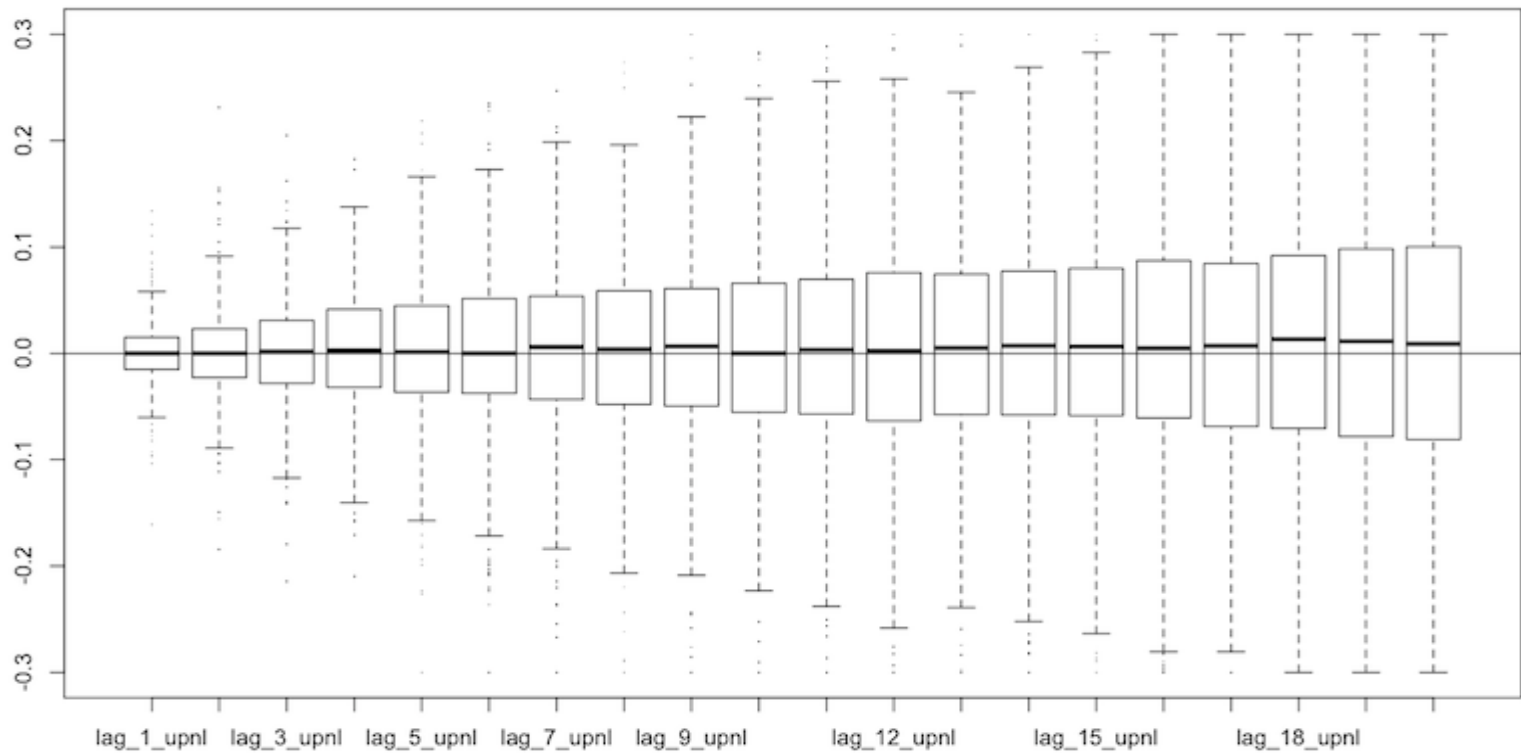
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# ...as long as we're looking at code...

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```
x.rf <- x
nms <- names(x)
for(i in 1:20) {
  ##normalize data as log returns for display
  new_col <- log(lag(x[,1],-i)) - log(x[,1])
  new_nm <- paste('lag', i, 'upnl', sep='_')
  x.rf <- cbind(x.rf, new_col)
  nms <- c(nms, new_nm)
}
names(x.rf) <- nms
```

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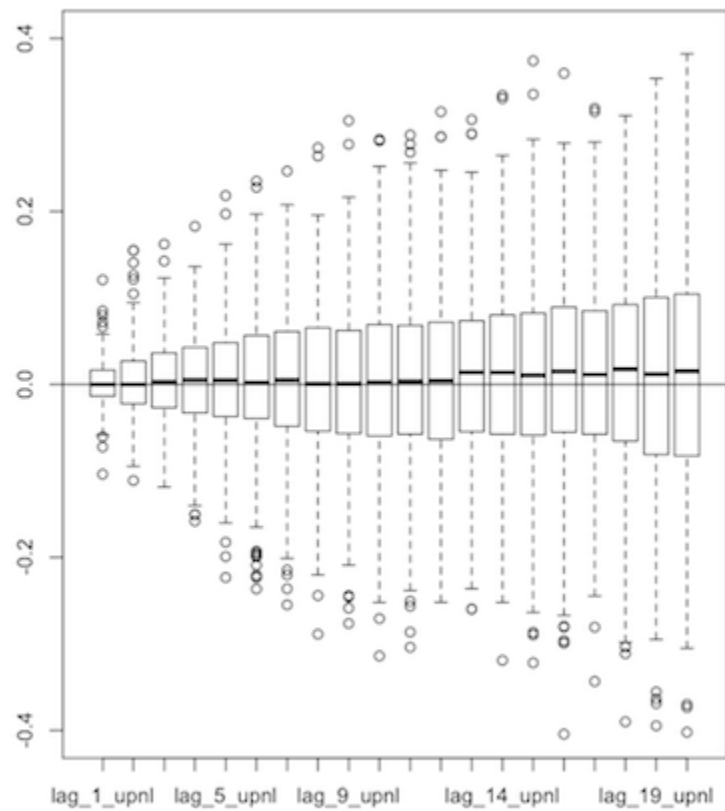


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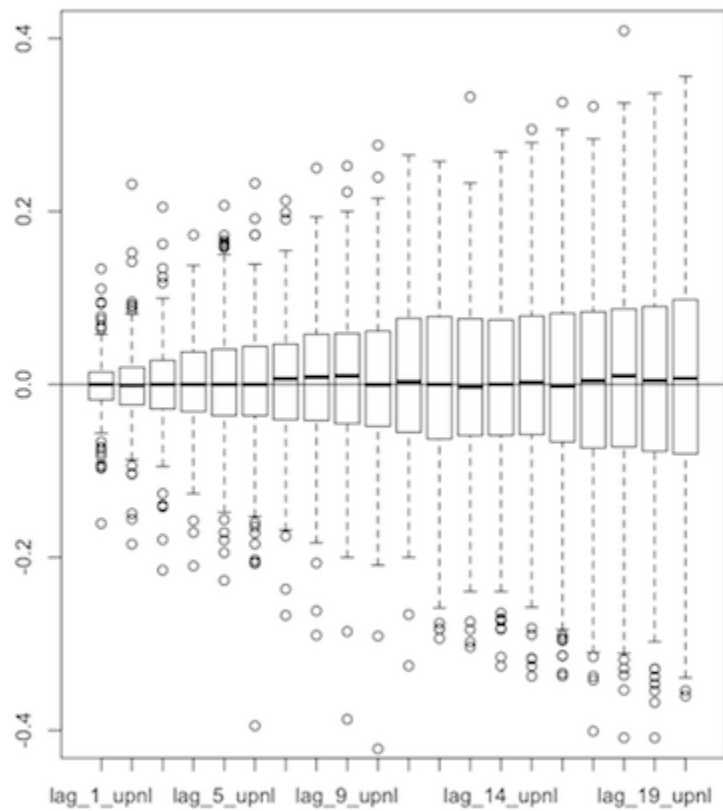
```
boxplot(as.data.frame(x.rf[,-1:-5]), pch=".")
```

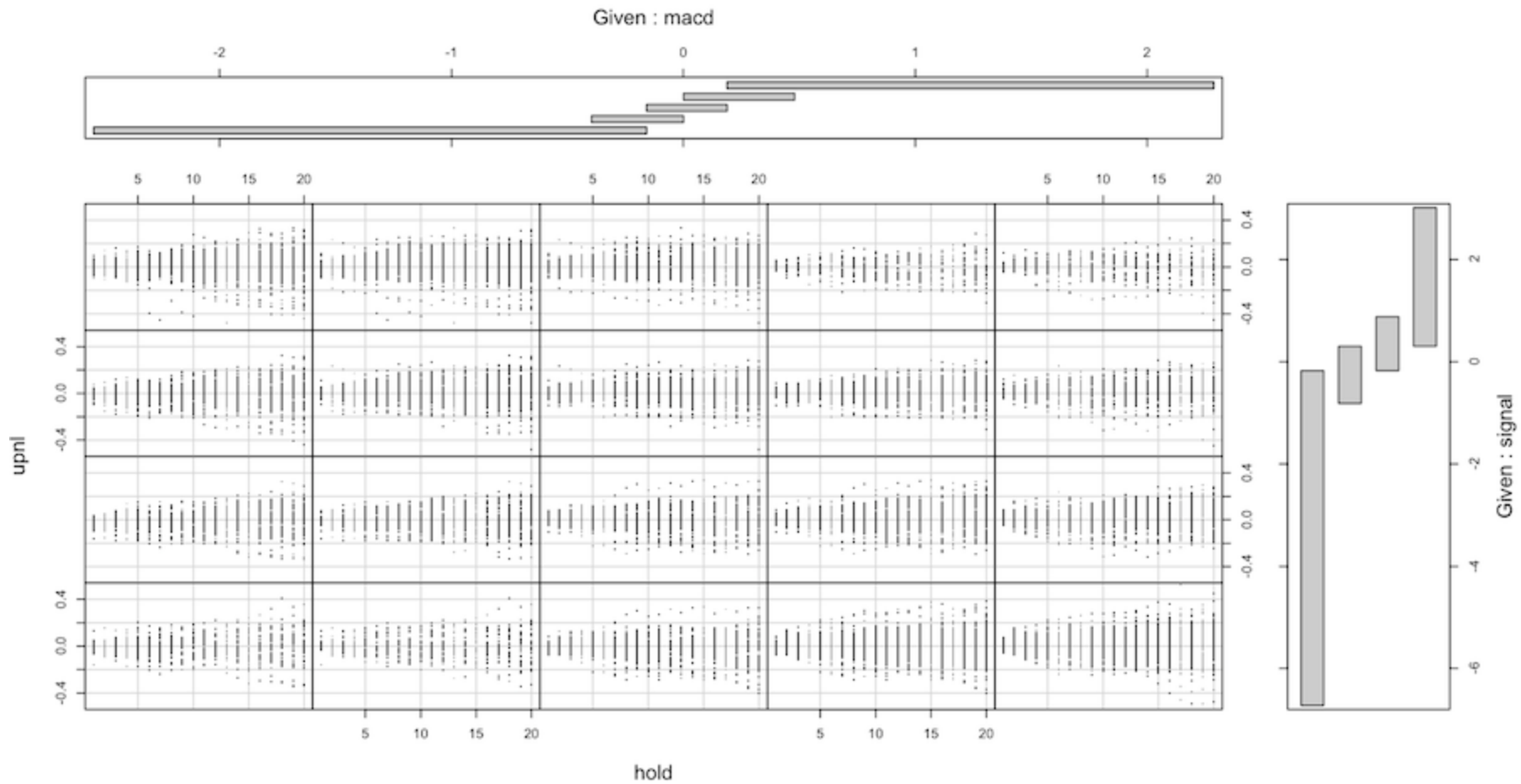
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Buys



Sells

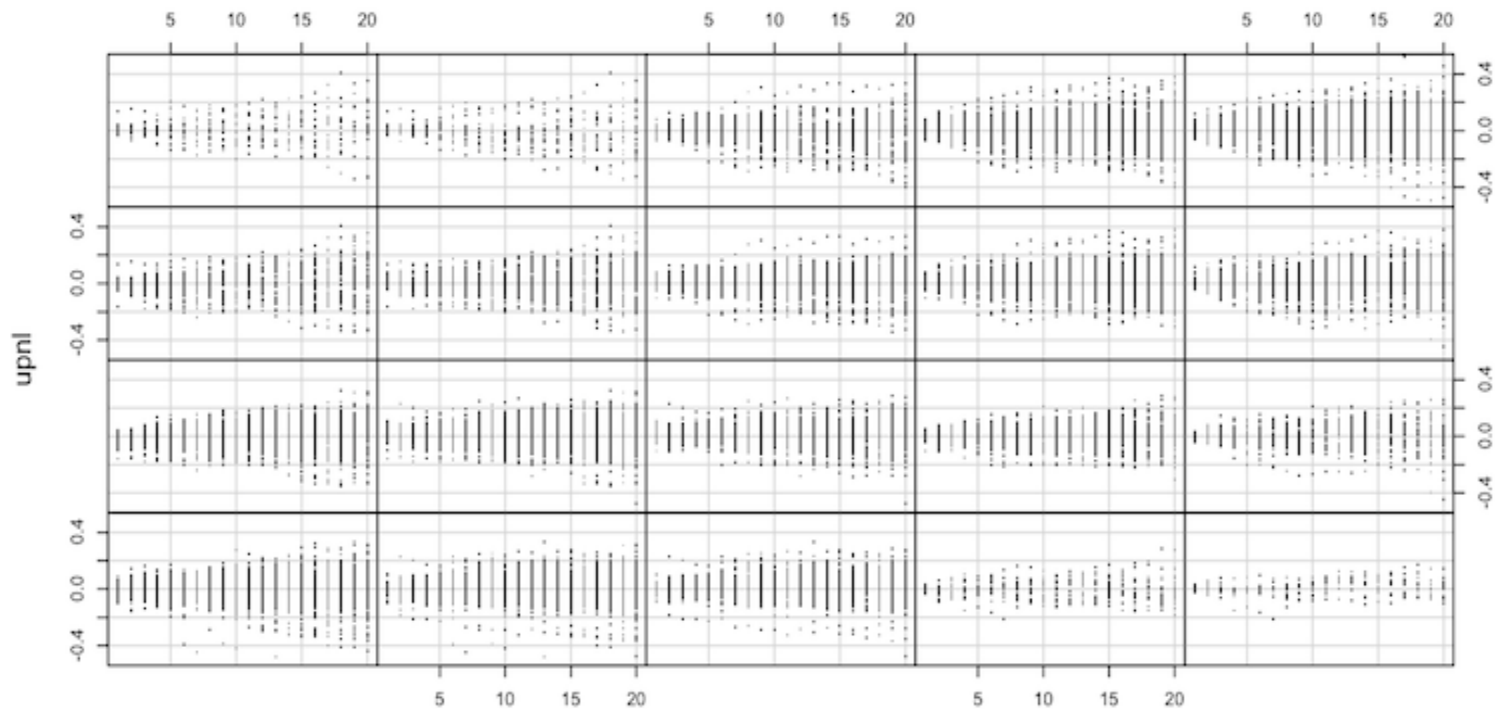
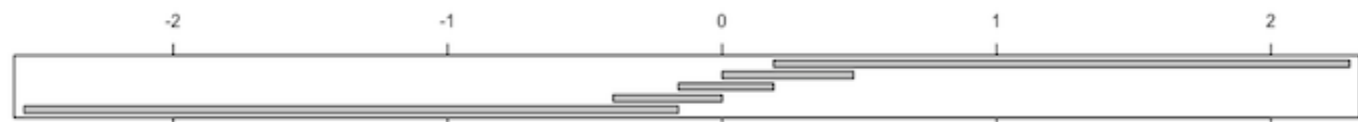




```
coplot(upnl~hold | macd+signal, data=e, number=c(5,4), pch='.', ylim=c(-0.5,0.5))
```



Given : macd



hold

