



FINANCIAL TRADING IN R

Introduction to Rules

What Are Rules?

- Rules are functions used to create a transaction given you wish to make one based on a signal
- Rules in R: more complex than indicators and signals
- Enter rules: buying shares
- Exit rules: selling shares (converting them back into cash)

Using add.rule()

- Many arguments

```
add.rule(strategy.st, name = "ruleSignal",  
          arguments = list(sigcol = "filterexit",  
                           signal = TRUE, ... ),  
          type = "exit")
```



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Let's practice!



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More Rule Mechanics

More arguments to ruleSignal

- `orderqty`
- `ordertype`
- `orderside`

Using add.rule()

```
add.rule(strategy.st, name = "ruleSignal",  
          arguments = list(sigcol = "filterexit", sigval = TRUE,  
                           orderqty = "all", ordertype = "market",  
                           orderside = "long", ... ),  
          type = "exit")
```



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More Rule Mechanics II

More arguments to ruleSignal

- replace
- prefer

Structure

```
add.rule(strategy.st, name = "ruleSignal",  
          arguments = list(sigcol = "filterexit", signal = TRUE,  
                           orderqty = "all", ordertype = "market",  
                           orderside = "long", replace = FALSE,  
                           prefer = "Open"),  
          type = "exit")
```

- replace: TRUE is other signals canceled, else FALSE
- prefer: when to enter into a position
 - bar: open, high, low, close
 - default: buy at close of next day/bar



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Order sizing functions

What Are Rules?

```
add.rule(strategy.st, name = "ruleSignal",  
          arguments = list(sigcol = "filterexit", signal = TRUE,  
                           orderqty = "all", ordertype = "market",  
                           orderside = "long", replace = FALSE,  
                           prefer = "Open"),  
          type = "exit")
```

- Specify how much to buy or sell if orderqty not used
- Create dynamic order sizes as opposed to orderqty's static order size

What Are Rules?

```
add.rule(strategy.st, name = "ruleSignal",  
          arguments = list(sigcol = "filterexit", signal = TRUE,  
                           orderqty = "all", ordertype = "market",  
                           orderside = "long", replace = FALSE,  
                           prefer = "Open", osFUN = ...,  
                           tradeSize = ..., maxSize = ...),  
          type = "exit")
```

- Order sizing function under same list of arguments in `ruleSignal`
- Similar to `apply()`



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