reshape2

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wide vs. long data

| ozone | wind | temp |
|----------|-----------|----------|
| 23.61538 | 11.622581 | 65.54839 |
| 29.44444 | 10.266667 | 79.10000 |
| 59.11538 | 8.941935 | 83.90323 |
| 59.96154 | 8.793548 | 83.96774 |

variable value ozone 23.615385 ozone 29.444444 ozone 59.115385 ozone 59.961538 wind 11.622581 wind 10.266667 wind 8.941935 wind 8.793548 temp 65.548387 temp 79.100000 temp 83.903226

melt and dcast



melt(data)

melt(data, id.vars = "column_name")

variable.name value.name

dcast(data, id ~ variable, value.var = "value")

dcast formula $dcast(aql, month + day \sim variable, value.var = "value")$

ID variables (left side of formula)

Variable to swing into column names (right side of formula)

Values (value.var)

Long-format data

| ${\tt month}$ | day | variable | value |
|---------------|-----|----------|-------|
| 5 | 1 | ozone | 41 |
| 5 | 2 | ozone | 36 |
| 5 | 3 | ozone | 12 |
| 5 | 4 | ozone | 18 |
| 5 | 5 | ozone | NA |
| 5 | 6 | ozone | 28 |
| | | | |

Wide-format data

| month | day | ozone | solar.r | wind | temp |
|-------|-----|-------|---------|------|------|
| 5 | 1 | 41 | 190 | 7.4 | 67 |
| 5 | 2 | 36 | 118 | 8.0 | 72 |
| 5 | 3 | 12 | 149 | 12.6 | 74 |
| 5 | 4 | 18 | 313 | 11.5 | 62 |
| 5 | 5 | NA | NA | 14.3 | 56 |
| 5 | 6 | 28 | NA | 14.9 | 66 |
| | | | | | |

fun.aggregate

help(package = "reshape2")

http://had.co.nz/reshape/

Wickham, H. (2007). Reshaping data with the reshape package. 21(12):1–20.