

Pattern 2: Alerts and Thresholds

This pattern detects a condition and generates alerts based on a condition. (e.g., Alarm on high temperature). These alerts can be based on a simple value or more complex conditions such as rate of increase etc.

In Odysseus generating an alert is simply so create a data pipeline where an element reaches an final operator that sends out the value. E.g. if you use the [Select operator](#) to filter out every bid that has a lower price than 400 only bids with a value higher or equals 400 is send to the next operator. An alert can be sending an e-mail (in the following example without authentication at the SMTP server). See [Transport handler](#) for further ways to output values.

```
out = SELECT({
    predicate = 'price >= 400'
},
    nexmark:bid
)

mail = SENDER({
    sink='Sink',
    wrapper='GenericPush',
    transport='SMTP',
    protocol='CSV',
    datahandler='Tuple',
    options=[
        ['from','alert@test.de'],
        ['to','receiver@test.de'],
        ['subject','Price Alert'],
        ['host','smtp.server.de'],
        ['tls','false']
    ]
},
    out
)
```

More complex filter or conditions can be defined using [Pattern operator](#). In each case, the output of an operator would trigger sending an element.