EODC usage examples

The following examples are listed below:

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- 4. Get historic and upcoming earning events [6]
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0) General usage

The general format of EODC queries is:

>> [data, errMsg, limits] = EODC(action, parameterlName,parameterlValue, parameter2Name,parameter2Value, ...);

where:

- data the returned data (usually from from EODHistoricalData's servers)
- errMsg error message (if any)
- limits the updated query limits. These can be used to ensure you do not surpass your license's allowed limits
- action a string that specifies the query type. One of: 'license', 'limits', 'version', 'update', 'revert', 'doc', 'prices', 'fundamentals', 'technicals', 'options', 'dividends', 'splits', 'earnings', 'shorts', 'ipo', 'lookup'

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• parameterName - a case-insensitive string that specifies the parameter name. Each query action has its own set of acceptable parameter names.

In your very first EODC command, you need to specify the API token that you received from EODHistoricalData.com, via the 'API_Token' parameter (you can get a free token here [16]). EODC will reuse this token in all subsequent commands, so you only need to specify it once (or when you change your token key). For example:

>> data = EODC('prices', ..., 'API_Token','123456.abcdef'); % '123456.abcdef' is a dummy (invalid) token, use your own personal token

Note: all parameter names are case in-sensitive. i.e., you can use 'API_Token' or 'API_TOKEN' or 'api_token' as you wish.

List of general parameters that are relevant to all guery types:

- API Token string; no default. This is the API token that is provided by EODHistoricalData.com (you can get a free token $\underline{\text{here}}^{\,[16]}$)
- Timeout numeric; default=5. Max number of seconds to wait for EOD's response
- symbol or Symbols string or cell-array of strings, e.g., 'IBM' or 'IBM,GOOG' or {'IBM','GOOG'}
 UseParallel logical true/false; default=false (only available in Analyst/Pro licenses, for multiple symbols)
- Order string; default='asc'; either 'asc' or 'desc'. Affects the order of returned data array(s), where relevant

1) Get market data (delayed snapshot)

```
>> data = EODC('prices', 'symbol', 'IBM', 'datatype', 'live')
data =
  struct with fields:
           symbol: 'IBM.US'
         timestamp: 1577204520
        gmtoffset: 0
              open: 135.61
              high: 135.62
               low: 134.61
            close: 134.7425
           volume: 593912
    previousClose: 135.55
           change: -0.808
      change_p: -0.596
datestr_GMT: '24-Dec-2019 16:22:00'
      datenum_GMT: 737783.681944444
```

Available parameters that affect this query (in addition to the standard general parameters [18]):

- DataType string; must be 'live' to get the current (delayed) market snapshot
- SecType string; default='equity'; one of 'equity', 'index', 'bond'

2) Get historic/intra-day data

```
>> data = EODC('prices', 'symbol', 'IBM', 'FromDate',20191203, 'ToDate','2019/12/13', 'DataType','day')
  9×1 struct array with fields:
    symbol
    date
    datenum
    open
    high
    low
    close
    adjusted_close
    volume
```

```
>> data(1)
ans =
  struct with fields:
             symbol: 'IBM.US'
            date: '2019-12-03'
datenum: 737762
                open: 132
                high: 132.44
                 low: 130.69
               close: 132.12
    adjusted_close: 132.12
              volume: 3642500
Available parameters that affect this query (in addition to the standard general parameters [18]):
    • DataType - string; default='day'; one of 'intreday', 'day', 'week', 'month'
      SecType - string; default='equity'; one of 'equity', 'index', 'bond'
      FromDate - integer or string; default=[]; earliest data date (GMT timezone). Examples: 20191203, '2019-12-03', 201912031535, '2019/12/03 15:35'
    • TODate - integer or string; default=[]; latest data date (GMT timezone). Examples: 20191203, '2019-12-03', 201912031535, '2019/12/03 15:35'
 3) Get fundamental data
% Fundamental data for an equity:
>> data = EODC('fundamental', 'symbol', 'IBM')
data =
  struct with fields:
                 symbol: 'IBM.US'
                General: [1×1 struct]
            Highlights: [1×1 struct]
              Valuation: [1×1 struct]
           SharesStats: [1×1 struct]
            Technicals: [1×1 struct]
      SplitsDividends: [1×1 struct]
             ESGScores: [1×1 struct]
    outstandingShares: [1×1 struct]
               Earnings: [1×1 struct]
            Financials: [1×1 struct]
>> data.General
ans =
  struct with fields:
                        Code: 'IBM'
                        Type: 'Common Stock'
                        Name:
                              'International Business Machines Corporation'
                   Exchange: 'NYSE'
               CurrencyCode: 'USD'
               CurrencyName:
                              'US Dollar'
            CurrencySymbol: '$'
                CountryName: 'USA'
                CountryISO: 'US'
                        ISIN: 'US4592001014'
                      CUSIP: '459200101'
                         CIK: 51143
          EmployerIdNumber: '13-0871985'
             FiscalYearEnd: 'December'
                    IPODate: []
    InternationalDomestic: 'International/Domestic'
                   Sector: 'Technology'
Industry: 'Information Technology Services'
                  GicSector: 'Information Technology
                   GicGroup: 'Software & Services'
            GicIndustry: 'IT Services'
GicSubIndustry: 'IT Consulting & Other Services'
Description: 'International Business Machines Corporation operates as an integrated technology and services company worldwide...'
                    Address: '1 New Orchard Road 10504, Armonk, USA Phone: '914-499-1900'
                     WebURL: 'www.ibm.com'
                    LogoURL: 'https://eodhistoricaldata.com/img/logos/US/IBM.png'
         FullTimeEmployees: 350600
                  UpdatedAt: '2019-12-24'
>> data.Highlights
ans =
  struct with fields:
           MarketCapitalization: 120048099328
        MarketCapitalizationMln: 120048.0993
                          EBITDA: 16664000512
PERatio: 15.7525
                         PEGRatio: 4.92
          WallStreetTargetPrice: 148.3
                       BookValue: 20.275
                   DividendShare: 6.48
                   DividendYield: 0.0478
                   EarningsShare: 8.605
         EPSEstimateCurrentYear: 12.8
         EPSEstimateNextYear: []
EPSEstimateNextQuarter: 2.17
     EPSEstimateCurrentQuarter: []

MostRecentQuarter: '2019-09-30'
                    ProfitMargin: 0.1
              OperatingMarginTTM: 0.1445
               ReturnOnAssetsTTM: 0.0513
               ReturnOnEquityTTM: 0.4061
                      RevenueTTM: 77130997760
             RevenuePerShareTTM: 86.587
     QuarterlyRevenueGrowthYOY: -0.039
                  GrossProfitTTM: 36936000000
                   DilutedEpsTTM: 8.605
    QuarterlyEarningsGrowthYOY: -0.365
% Fundamental data for a bond (note that we can search by CUSIP or ISIN in the Symbol parameter):
>> data = EODC('fundamental', 'symbol','910047AG4', 'sectype','bond')
```

```
data =
  struct with fields:
                          symbol: '910047AG4'
                             ISIN: 'US910047AG49'
                           CUSTP: '910047AG4'
                            Name: 'UNITED AIRLS HLDGS INC 6% 01Dec2020'
                     UpdateDate: '2019-11-27'
                             WKN: 'A1HS3T'
                           Sedol: 'BFV4Y03'
                       FIGI: 'BBG005J8GHT4'
Currency: 'USD'
                          Coupon: 6
                           Price: 103.03
                 LastTradeDate: '2019-11-27'
Maturity_Date: '2020-11-30'
               YieldToMaturity: 2.833
Callable: 'No'
    NextCallDate: []
MinimumSettlementAmount: '1000 USD'
ParIntegralMultiple: '1000 USD'
           ClassificationData: [1×1 struct]
                         Rating: [1×1 struct]
                      IssueData: [1×1 struct]
>> data.ClassificationData
ans =
  struct with fields:
                   BondType: 'Unternehmensanleihen Welt Rest'
                   DebtType: 'Senior Unsecured Note'
            IndustryGroup: 'Industrial'
         IndustrySubGroup: 'Transportation'
          SubProductAsset: 'CORP'
     SubProductAssetType: 'Corporate Bond'
>> data.Rating
  struct with fields:
     MoodyRating: 'Ba3'
MoodyRatingUpdateDate: '2019-11-27'
SPRating: 'BB'
         SPRatingUpdateDate: '2018-04-16'
>> data.IssueData
ans =
  struct with fields:
                     IssueDate: '2013-11-08'
              OfferingDate: '2013-11-01'
FirstCouponDate: '2014-06-01'
FirstTradingDay: '2013-11-08'
     CouponPaymentFrequency: []
           Issuer: 'United Airlines Holdings Inc.'
IssuerDescription: 'United Continental Holdings Inc. is an airline holding company. The Company owns and operates airlines that transpor
                IssuerCountry: 'USA'
                     IssuerURL: []
Available parameters that affect this query (in addition to the \underline{\text{standard general parameters}}^{[18]}):
    • SecType - string; default='equity'; one of 'equity','index','bond'
 4) Get historic and upcoming earning events
% Historic earning reports (requested on Dec. 24, 2019):
>> data = EODC('earnings', 'symbol','IBM', 'fromdate',20190101)
data =
  4×1 struct array with fields:
     {\tt symbol}
     report_date
     datenum
     actual
     estimate
     difference
     percent
>> data(end)
ans =
  struct with fields:
    datenum: 737698
           actual: 2.68
      estimate: 2.67
difference: 0.01
          percent: 0.37
% Upcoming earning reports (requested on Dec. 24, 2019):
>> data = EODC('earnings', 'symbol','IBM')
data =
>> data = EODC('earnings', 'symbol','JOB.US')
data =
  struct with fields:
    symbol: 'JOB.US'
report_date: '2019-12-30'
```

date: '2019-12-30'
datenum: 737789
actual: []
estimate: -0.2
difference: 0
percent: []

% All upcoming (announced) earnings reports:

```
>> data = EODC('earn')
data =
  38×1 struct array with fields:
    symbol
    report_date
    date
    datenum
    actual
    estimate
    difference
    percent
>> struct2table(data)
ans =
  38×8 table
      symbol
                report_date
                                   date
                                              datenum
                                                          actual
                                                                        estimate
                                                                                    difference
                                                                                                   percent
    '3174.TSE'
                '2019-12-24'
                              '2019-12-24' 737783
                                                       {0×0 double}
                                                                      {0×0 double}
                                                                                                 {0×0 double}
                                                                       {0×0 double}
     '6196.TSE'
                 '2019-12-24'
                               '2019-12-24'
                                              737783
                                                       {0×0 double}
                                                                                         ٥
                                                                                                  {0×0 double}
                 2019-12-24
                                '2019-12-24'
     'HURC.US'
                                              737783
                                                                                                  {0×0 double}
                                                       {0×0 double}
                                                                      {0×0 double}
                                                                                         0
     'JRJC.US'
                 '2019-12-24'
                               '2019-12-24'
                                              737783
                                                       {0×0 double}
                                                                      {0×0 double}
                                                                                                 {0×0 double}
     'MLR.V'
                 '2019-12-24'
                               '2019-12-24'
                                              737783
                                                       {0×0 double}
                                                                      {0×0 double}
                                                                                         0
                                                                                                  {0×0 double}
    'ROYT.US'
                 '2019-12-24'
                               '2019-12-24' 737783
                                                       {0×0 double}
                                                                      ]}
                                                                            0.051}
                                                                                         0
                                                                                                 {0×0 double}
```

Available parameters that affect this query (in addition to the $\underline{\text{standard general parameters}}^{[18]}$):

- FromDate integer or string; default=[]; earliest data date (GMT timezone). Examples: 20191203, '2019-12-03'
- ToDate integer or string; default=[]; latest data date (GMT timezone). Examples: 20191203, '2019-12-03'

5) Get historic and upcoming split events

```
% 2 splits for AAPL since 1/1/2000:
>> data = EODC('splits', 'symbol','AAPL', 'fromdate',20010101)
data =
  2×1 struct array with fields:
    symbol
    date
    datenum
    split
    split ratio
>> struct2table(data)
ans =
  2×5 table
     symbol
                     date
                               datenum
                                                split
                                                              split_ratio
    'AAPL.US'
              '2005-02-28'
                              732371
                                        '2.000000/1.000000'
                                       '7.000000/1.000000'
    'AAPL.US' '2014-06-09' 735759
% No splits for IBM since 1/1/2000:
>> data = EODC('splits', 'symbol','IBM', 'fromdate',20100101)
data =
     []
% Upcoming (future) splits:
>> data = EODC('splits')
data =
  60×1 struct array with fields:
    symbol
    split_date
    split_datenum
    optionable
    old shares
    new_shares
    split_ratio
>> struct2table(data)
ans =
  60×7 table
         symbol
                        split_date split_datenum optionable old_shares new_shares
                                                                                                 split ratio
    '5DP.SG
                       '2019-12-24'
                                         737783
                                                          'N
                                                                                                             1.5
                                                                                     3
     'DCTH.US'
                       '2019-12-24'
                                         737783
                                                          'N'
                                                                                            0.00142857142857143
     'LZRFY.US'
                        2019-12-24
                                         737783
                                                          'N'
                                                                      100
                                                                                   105
                                                                                                            1.05
                        2019-12-24
                                                                                             0.0714285714285714
                                                          'N'
     'OKL.F'
                                         737783
                                                                       14
                                                                                     1
     'QKL.STU'
                                         737783
                       '2019-12-24'
                                                                                             0.0714285714285714
                        '2019-12-24'
     'OUTK.US'
                                         737783
                                                          'N'
                                                                       14
                                                                                     1
                                                                                             0.0714285714285714
     BALMLAWRIE.NSE'
                       '2019-12-26'
                                         737785
                                                          ' N '
                                                                        2
                                                                                     3
                                                                                                             1.5
    '000100.KO'
                       '2019-12-27'
                                         737786
```

Available parameters that affect this query (in addition to the $\underline{\text{standard general parameters}}^{[18]}$):

- FromDate integer or string; default=[]; earliest data date (GMT timezone). Examples: 20191203, '2019-12-03'
- ToDate integer or string; default=[]; latest data date (GMT timezone). Examples: 20191203, '2019-12-03'

6) Get historic and upcoming dividend events

```
% Historic dividend events:
>> data = EODC('dividend', 'symbol', 'IBM', 'fromdate', 20190101)
data =
  4×1 struct array with fields:
    svmbol
    date
    datenum
    declarationDate
    recordDate
    paymentDate
    value
>> struct2table(data)
ans =
  4×7 table
```

```
'IBM.US'
               '2019-02-07'
                               737463
                                                            '2019-02-08'
                                                                           '2019-03-09'
                                           '2019-01-29'
                                                                                          1.57
                                                           '2019-05-10'
               '2019-05-09'
                                                                           '2019-06-10'
                                           '2019-04-30'
               '2019-08-08'
                                           '2019-07-30'
                                                                           '2019-09-10'
     'TRM.US'
                               737645
                                                                                          1.62
               '2019-11-07'
                                            2019-10-29
                                                            '2019-11-08'
                                                                           '2019-12-10'
     'IBM.US
                               737736
                                                                                          1.62
>> data(1)
ans =
  struct with fields:
              symbol: 'IBM.US'
                date: '2019-02-07'
             datenum: 737463
    declarationDate: '2019-01-29'
          recordDate: '2019-02-08'
        paymentDate: '2019-03-09'
               value: 1.57
% Upcoming (future) dividend events:
>> data = EODC('dividend', 'symbol', 'IBM')
data =
  199×1 struct array with fields:
     symbol
     date
    datenum
    declarationDate
    recordDate
    paymentDate
     value
>> data(1)
ans =
  struct with fields:
              symbol: 'IBM.US'
                date: '1970-05-01'
             datenum: 719649
    declarationDate: []
          recordDate: []
         paymentDate: []
               value: 0.06
Available parameters that affect this query (in addition to the standard general parameters [18]):
    • FromDate - integer or string; default=[]; earliest data date (GMT timezone). Examples: 20191203, '2019-12-03'
    • TODate - integer or string; default=[]; latest data date (GMT timezone). Examples: 20191203, '2019-12-03'
 7) Get historic IPO events
% Historic IPO events:
>> data = EODC('IPO', 'fromdate',20191201)
data =
  132×1 struct array with fields:
    symbol
     name
     exchange
    currency
     start_date
    filing_date amended_date
    price_from
    price_to
offer_price
    deal type
>> struct2table(data)
ans =
  132×12 table
     symbol
                                            exchange
                                                                       start_date
                                                                                     filing_date
                                                                                                     amended_date price_from price_to offer_price
                         name
                                                           currency
     'AMX.AU'
                 'Aerometrex Ltd'
                                          'ASX
                                                            'AUD
                                                                      '2019-12-10'
                                                                                      '2019-11-01'
                                                                                                     '2019-11-01'
                                                                                                                                                           2500
     'N/A'
'N/A'
                 'Air Baltic Corp AS'
                                          'Riga
                                                            'EUR'
                                                                      {0×0 double}
                                                                                      '2018-07-25'
                                                                                                     2019-12-09
                                                                                                                              ٥
                                                                                                                                         0
                                                                                                                                                   0
                                                                      {0×0 double}
                                                                                      2019-12-03
                                                            USD'
                 'Akeso Inc'
                                          'HKSE
                                                                                                     {0×0 double}
                                                                                                                              0
                                                                                                                                         0
                                                                                                                                                   0
     '9966.HK'
                 Alphamab Oncology
                                           HKSE '
                                                            'HKD'
                                                                       2019-12-05
                                                                                      2018-10-23
                                                                                                      2019-12-02
     '9966.HK'
                 'Alphamab Oncology
                                          'HKSE
                                                            'HKD'
                                                                      {0×0 double}
                                                                                      2018-10-23
                                                                                                     2019-12-02
                                                                                                                              0
                                                                                                                                         0
                                                                                                                                                10.2
                                                                                                                                                           8970
                                                                                                     '2019-12-02'
     '9966.HK
                 'Alphamab Oncology
                                          'HKSE
                                                            'HKD'
                                                                      {0×0 double}
                                                                                      2018-10-23
                                                                                                                              0
                                                                                                                                         0
                                                                                                                                                10.2
                                                                                                                                                           8970
                                                                       2019-12-05
                                                                                                     '2019-12-02'
     '9966.HK
                  Alphamab Oncology
                                           HKSE
                                                            HKD'
                                                                                      '2018-10-23'
     'NA.CN'
                 'Altum Resource Corp'
                                          'Canadian Sec
                                                            'CAD'
                                                                      {0×0 double}
                                                                                      '2019-12-12'
                                                                                                     {0×0 double}
                                                                                                                         0.0759
                                                                                                                                   0.0759
                                                                                                                                                            350
```

paymentDate

value

recordDate

Available parameters that affect this query (in addition to the $\underline{\text{standard general parameters}}^{[18]}$):

- FromDate integer or string; default=[]; earliest data date (GMT timezone). Examples: 20191203, '2019-12-03'
- ToDate integer or string; default=[]; latest data date (GMT timezone). Examples: 20191203, '2019-12-03'

8) Get historic technical indicators

symbol

datenum

declarationDate

```
>> data = EODC('technical', 'symbol','IBM', 'fromdate',20190701, 'period',40, 'function','rsi')
data =
83×1 struct array with fields:
    symbol
    date
    datenum
    rsi
>> data(1)
ans =
    struct with fields:
    symbol: 'IBM.US'
    date: '2019-08-27'
    datenum: 737664
    rsi: 42.92
```

```
>> struct2table(data)
ans =
  83×4 table
                                                rsi
     symbol
                 '2019-08-27'
                                   737664
    'IBM.US'
                                                42.92
     'IBM.US'
                  '2019-08-28'
                                   737665
     'IBM.US'
                  '2019-08-29'
                                   737666
                                               46.291
     'IBM.US'
                  '2019-08-30'
                                   737667
                                               46.861
     'IBM.US'
                  '2019-09-03'
                                   737671
                                                45.765
     'IBM.US'
                  2019-09-04
                                   737672
                                               47.712
     'IBM.US'
                  '2019-09-05'
                                   737673
                                               51.457
     'IBM.US'
                  '2019-09-06'
                                   737674
                                               51.134
                  '2019-09-09'
     'IBM.US'
                                   737677
                                                52.68
     'IBM.US'
                  '2019-09-10'
                                   737678
                                               54.464
```

Available parameters that affect this query (in addition to the $\underline{\text{standard general parameters}}^{[18]}$):

- FromDate integer or string; default=[]; earliest data date (GMT timezone). Examples: 20191203, '2019-12-03'
- ToDate integer or string; default=[]; latest data date (GMT timezone). Examples: 20191203, '2019-12-03'

9) Get historic short interests

```
% Historic short interests for AAPL (note the 'desc' order)
>> data = EODC('shorts', 'symbol', 'AAPL', 'fromdate',20190101, 'todate',20191231, 'order','desc')
data =
  17×1 struct array with fields:
    svmbol
    date
    datenum
    short
    volume
>> data(1)
ans =
  struct with fields:
     symbol: 'AAPL.US' date: '2019-09-13'
    datenum: 737681
      short: 42651634
     volume: 28651684
>> struct2table(data)
  17×5 table
     symbol
                       date
                                     datenum
                                                   short
                                                                volume
    'AAPL.US'
                   '2019-09-13'
                                     737681
                                                 42651634
                                                               28651684
     'AAPL.US'
                   '2019-08-30'
                                     737667
                                                 39517330
                                                               25536624
     'AAPL.US'
                   '2019-08-15'
                                     737652
                                                 45594258
                                                               36615393
                                                 43005960
                                                               23525795
                    '2019-07-31'
                                     737637
     'AAPL.US'
                   '2019-07-15'
                                     737621
                                                  42428971
                                                               19134090
     'AAPL.US'
                    2019-06-28
                                     737604
                                                 43448528
                                                               24985287
                                     737590
     'AAPL.US'
                    2019-06-14
                                                 47003511
                                                               26629536
     'AAPL.US'
                   '2019-05-31'
                                     737576
                                                 51257104
                                                               29778281
     'AAPL.US'
                    2019-05-15
                                     737560
                                                 49550348
                                                               37444374
     'AAPL.US'
                                     737545
                                                 52669476
                    2019-04-30'
                                                               24561618
     'AAPL.US'
                   '2019-04-15'
                                     737530
                                                  61003851
                                                               23755423
     'AAPL.US'
                    2019-03-29
                                     737513
                                                 67786010
                                                               35017255
     'AAPL.US'
                                     737499
                                                  72751656
                    '2019-03-15'
                                                               27347457
     'AAPL.US'
                   '2019-02-28'
                                     737484
                                                 96832513
                                                               22065273
                    '2019-02-15'
     'AAPL.US'
                                     737471
                                                 39903215
                                                               26937971
     'AAPL.US'
                   '2019-01-31'
                                     737456
                                                  40360782
     'AAPL.US'
                   '2019-01-15'
                                     737440
                                                 46579709
                                                               45191034
```

Available parameters that affect this query (in addition to the $\underline{\text{standard general parameters}}^{[18]}$):

- FromDate integer or string; default=[]; earliest data date (GMT timezone). Examples: 20191203, '2019-12-03'
 ToDate integer or string; default=[]; latest data date (GMT timezone). Examples: 20191203, '2019-12-03'

10) Search for a symbol across all exchanges

```
>> data = EODC('lookup', 'symbol','IBM')
data :
  18×1 struct array with fields:
    symbol
    Exchange
    Name
    Country
    Currency
>> struct2table(data)
ans =
```

18×6 table	December of the second	V	G 1	Q	TOTAL
symbol	Exchange	Name	Country	Currency	ISIN
'IBM'	'US'	'International Business Machines Corporation'	'USA'	'USD'	'US4592001014'
'IBM'	'XETRA'	'International Business Machines Corporation'	'Germany'	'EUR'	{0×0 double}
'IBM'	'MX'	'International Business Machines Corporation'	'Mexico'	'MXN'	{0×0 double}
'IBM'	'F'	'International Business Machines Corporation'	'Germany'	'EUR'	{0×0 double}
'IBM'	'STU'	'IBM (IBM.SG)'	'Germany'	'EUR'	{0×0 double}
'IBM'	'MU'	'IBM'	'Germany'	'EUR'	{0×0 double}
'IBM'	'HM'	'IBM'	'Germany'	'EUR'	{0×0 double}
'IBM'	'BE'	'IBM'	'Germany'	'EUR'	{0×0 double}
'IBM'	'DU'	'IBM - Dusseldorf Stock Exchang'	'Germany'	'EUR'	{0×0 double}
'IBMK'	'US'	'iShares iBonds Dec 2022 Term Muni Bond ETF'	'USA'	'USD'	'US46435G7557'
'IBMI'	'US'	'iShares iBonds Sep 2020 Term Muni Bond ETF'	'USA'	'USD'	'US46434V5710'
'IBMJ'	'US'	'iShares iBonds Dec 2021 Term Muni Bond ETF'	'USA'	'USD'	'US46435G7896'
'IBML'	'US'	'iShares iBonds Dec 2023 Term Muni Bond ETF'	'USA'	'USD'	'US46435G3184'
'IBMM'	'US'	'iShares iBonds Dec 2024 Term Muni Bond ETF'	'USA'	'USD'	{0×0 double}
'IBMN'	'us'	'iShares iBonds Dec 2025 Term Muni Bond ETF'	'USA'	'USD'	{0×0 double}

```
'IBMO'
          'US'
                       'iShares iBonds Dec 2026 Term Muni Bond ETF'
                                                                             'USA'
                                                                                            'USD'
                                                                                                        {0×0 double}
'TRMP
          'IIS'
                       'iShares iBonds Dec 2027 Term Muni Bond ETF'
                                                                             'IISA'
                                                                                            'HSD'
                                                                                                         {0×0 double}
                                                                                             'USD
'IBMQ
                        'iShares iBonds Dec 2028 Term Muni Bond ETF
           'US
                                                                              'USA
                                                                                                        {0×0 double}
```

Available parameters that affect this query (in addition to the $\underline{\text{standard general parameters}}^{[18]}$):

• DataType - string; must be 'symbol' for this query type

>> data = EODC('lookup', 'symbol','LSE', 'dataType','exchange')

11) Search for all symbols in an exchange

```
data
  3444×1 struct array with fields:
    symbol
    Name
    Country
    Exchange
    Currency
    Туре
>> head(struct2table(data))
  8×6 table
    symbol
                                                                                                              Country
                                                                                                                         Exchange
                                                                                                                                      Currency
                                                         Name
                                                                                                                                                       Type
    'OKBT'
                                                                                                                          'LSE
                                                                                                                                      'EUR
                                                                                                                                                   'Common Stock'
               'Knorr-Bremse Aktiengesellschaft'
'MULTI-UNITS LUXEMBOURG - Lyxor FTSE 100 UCITS ETF - Monthly Hedged to USD - Acc
                                                                                                              'UK
                                                                                                                                       USD'
     100H
                                                                                                               'UK
                                                                                                                          LSE
                                                                                                                                                   ETF
     '1MCS'
               'WisdomTree FTSE 250 1x Daily Short'
                                                                                                              'IIK'
                                                                                                                          'LSE'
                                                                                                                                      'GBX'
                                                                                                                                                   'ETF'
     '1PAS
               'WisdomTree Palladium 1x Daily Short
                                                                                                               'UK'
                                                                                                                          'LSE
                                                                                                                                       'USD
                                                                                                                                                   'ETF
               WisdomTree FTSE 250 2x Daily Leveraged
     '2MCL
                                                                                                               'UK'
                                                                                                                          'LSE
                                                                                                                                       'GBX
                                                                                                                                                   ETF'
     '2PAL'
               'WisdomTree Palladium 2x Daily Leveraged'
                                                                                                              'UK'
                                                                                                                          'LSE'
                                                                                                                                      'USD'
                                                                                                                                                   'ETF'
                                                                                                                                                   'ETF'
                                                                                                               'UK'
     '2UKT
               'WisdomTree FTSE 100 2x Daily Leveraged
                                                                                                                          'LSE
                                                                                                                                       'GBX
     '2UKS
               'WisdomTree FTSE 100 2x Daily Short
                                                                                                              'UK
                                                                                                                          LSE'
                                                                                                                                                   'ETF'
```

Available parameters that affect this query (in addition to the $\underline{\text{standard general parameters}}^{[18]}$):

• DataType - string; must be 'exchange' for this query type

```
12) Get an options chain
>> data = EODC('options', 'symbol', 'IBM')
data =
  struct with fields:
      symbol: 'IBM.US'
code: 'IBM'
    exchange: 'US'
        data: [15×1 struct]
>> data.data(1)
ans =
  struct with fields:
       expirationDate: '2019-12-27'
    expirationDatenum: 737786
                  puts: [39×1 struct]
                 calls: [39×1 struct]
>> struct2table(data.data)
ans =
  15×4 table
    expirationDate expirationDatenum
                                                                 calls
    {'2019-12-27'}
                            737786
                                            {39×1 struct}
                                                             {39×1 struct}
     {'2020-01-03'}
                            737793
                                            {38×1 struct}
                                                             {38×1 struct}
     { '2020-01-10 ' }
                            737800
                                            {35×1 struct}
                                                             {35×1 struct}
    {'2020-01-17'}
                            737807
                                            {55×1 struct}
                                                             {55×1 struct}
>> data.data(1).puts(6)
  struct with fields:
          contractName: 'IBM191227P00120000'
          contractSize: 'REGULAR'
              currency: 'USD'
                  type: 'PUT'
    cype: ror
inTheMoney: 'FALSE'
lastTradeDateTime: '2019-12-23 10:01:34'
expirationDate: '2019-12-27'
    expirationDatenum: 737786
                 strike: 120
             lastPrice: 0.01
                    bid: []
                    ask: 0.03
                change: -0.21
        changePercent: -0.9545
                 volume: 2
          openInterest: 3
    impliedVolatility: 45.512
                  delta: -0.0048
                  gamma: 0.0022
                  theta: -0.0113
                   vega: 0.002
                    rho: -0.0001
           theoretical: 0.01
        intrinsicValue: 0
             timeValue: 0
             updatedAt: '2019-12-23 19:32:03'
>> struct2table(data.data(1).puts)
  39×26 table
Available parameters that affect this query (in addition to the \underline{\text{standard general parameters}}^{[18]}):
```

- FromExpiryDate integer or string; default=[]; earliest data date (GMT timezone). Examples: 20191203, '2019-12-03'
- TOExpiryDate integer or string; default=[]; latest data date (GMT timezone). Examples: 20191203, '2019-12-03'
- FromTradeDate integer or string; default=[]; earliest data date (GMT timezone). Examples: 20191203, '2019-12-03'
- ToTradeDate integer or string; default=[]; latest data date (GMT timezone). Examples: 20191203, '2019-12-03'

13) Get EODC version and query limits

```
>> data = EODC('version')
data =
    struct with fields:
    Version: 1.03
    Release: '24-Dec-2019'
    License: 'Free'
    Expiry: '08-Aug-2020'

>> limits = EODC('limits')
limits =
    struct with fields:
        licenseType: 'Free'
    maxQueriesPerDay: 30
    maxQueriesPerDay: 37
    numQueriesToday: 27
    numQueriesThisMin: 0
    secsToEndOfMin: 0
```

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