

Millistream Portfolio Server (MPS)

The MPS is a REST-based web service designed to handle transaction based portfolios.

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Command list

insert_transaction	used to insert a buy or sell transaction
modify_transaction	used to modify a transaction
delete_transaction	used to delete a transaction
list_transactions	get a list of transactions
list_holdings	get a summary report of the portfolio
update_unlisted	set new price on an unlisted instrument
performance	get a time series with portfolio value
create_user	create a user
delete_user	Delete a user
create_portfolio	create a portfolio for a user
delete_portfolio	Delete a portfolio
list_portfolios	get a list of portfolios for a user
create_watchlist	Create a watchlist (a non transaction based portfolio)
delete_watchlist	Delete a watchlist
list_watchlists	Get a list of watchlists for a user
add_instrument	Insert/modify an instrument in a watchlist
delete_instrument	Delete an instrument in a watchlist
list_watchlist	List instruments in a watchlist

The insert_transaction command

Request

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Userid	User id	Y	Numeric
portfolioid	Portfolio id	Y	Numeric
Type	Instrument (I), Cash (C) or Unlisted (U)	Y	String
Insref	If type = I, this should be instrument insref and is required.	N	Numeric
Instrument	If type = U, this should be name of unlisted instrument and is required	N	String
Quantity	Number of instruments to buy or sell. Required if type = I or U. Should be negative if the instrument is sold.	N	Numeric
Amount	Value of transaction in the current currency of portfolio. Required if type = C.	N	Numeric
Price	Price of the instrument. Required if type = I or U.	N*	Numeric
Date	The date of the transaction. Must be formatted YYYY-MM-DD	Y	Date
Time	The time of the transaction. Must be formatted HH:MM:SS	Y	Time
Adjusted	Is the transaction adjusted for corporate actions (Y) or not (N). Defaults to N. If set to N, any corporate actions after the transaction date will affect the transaction when inserted. If set to Y, no corporate actions after the transaction date will affect the transaction when inserted. Future corporate actions will always affect transaction.	N	String
Fee	The fee for the transaction	N	Numeric
Comment	A free text comment	N	String
Pricelocalcurrency	Price in local currency	N*	Numeric
Currency	Currency of transaction	N*	String
Exchangerate	Exchangerate between local currency and transaction currency	N*	Numeric
Updatecash	If set to N, the transaction will not update portfolio cash. Defaults to Y.	N	String

* When type = I, the price of the transaction should be either Price or Pricelocalcurrency/Currency/Exchangerate.

Response

The command returns transactionid or an error message:

```
<transaction-inserted>  
  <transactionid>1</transactionid>  
</transaction-inserted>
```

The modify_transaction command

Request

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Userid	User id	Y	Numeric
portfolioId	Portfolio id	Y	Numeric
Transactionid	Transaction id to modify	Y	Numeric
Type	Instrument (I), Cash (C) or Unlisted (U)	Y	String
Insref	If type = I, this should be instrument insref and is required.	N	Numeric
Instrument	If type = U, this should be name of unlisted instrument and is required	N	String
Quantity	New number of instruments	N	Numeric
Amount	New value of transaction in the current currency of portfolio	N	Numeric
Price	New price of the instrument	N	Numeric
Date	The date of the transaction	N	Date
Time	The time of the transaction	N	Time
Fee	The fee for the transaction	N	Numeric
Comment	A free text comment	N	String
Pricalcurrency	Price in local currency	N	Numeric
Currency	Currency of transaction	N	String
Exchangerate	Exchangerate between local currency and transaction currency	N	Numeric

Response

The command returns transaction_id or an error message:

```
<transaction-modified>  
  <transactionid>1</transactionid>  
</transaction-modified>
```

The delete_transaction command

Request

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Userid	User id	Y	Numeric
portfolioId	Portfolio id	Y	Numeric
Transactionid	Transaction id to delete	Y	Numeric

Response

The command returns transaction_id or an error message:

```
<transaction-deleted>  
  <transactionid>1</transactionid>  
</transaction-deleted>
```

The list_transactions command

Request

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Userid	User id	Y	Numeric
portfolioId	Portfolio id	Y	Numeric
Startdate	Specifies which date the transaction list should start from. If not set, startdate will be date of first transaction in portfolio.	N	Date
Enddate	Specifies which date the transaction list should end. Defaults to today.	N	Date
Profloss	If set, only transactions with a profit or loss will be displayed. Possible values: Y or N. Default N	N	String
Insref	If set, only transactions on specific insref are returned	N	Numeric
Instrument	If set, only transactions on specific unlisted instrument are returned	N	String

Response

The command returns a block of information for each transaction.

```
<transaction-list>
  <transaction>
    <transactionid>20</transactionid>
    <type>C</type>
    <amount>100000.0000000</amount>
    <date>2010-01-01</date>
    <time>09:00:00</time>
  </transaction>
  <transaction>
    <transactionid>25</transactionid>
    <type>I</type>
    <insref>772</insref>
    <name>Ericsson B</name>
    <quantity>200.0000000</quantity>
    <price>68</price>
    <gav>68.475</gav>
    <fee>95</fee>
    <date>2010-02-01</date>
    <time>09:00:00</time>
  </transaction>
  <transaction>
    <transactionid>26</transactionid>
```

```
<type>I</type>
<insref>772</insref>
<name>Ericsson B</name>
<profloss>210</profloss>
<quantity>-200.0000000</quantity>
<price>70</price>
<gav>68.475000</gav>
<fee>95</fee>
<date>2010-02-04</date>
<time>09:00:00</time>
</transaction>
</transaction-list>
```


The list_holdings command

Request

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Userid	User id	Y	Numeric
portfolioId	Portfolio id	Y	Numeric

Response

The command returns a block of information for each current holding in the portfolio, including cash and unlisted instruments. It also returns a summary block:

```
<holdings-list>
  <instrument>
    <name>Ericsson B</name>
    <instrumenttype>4</instrumenttype>
    <insref>772</insref>
    <quantity>1500.0000000</quantity>
    <average-purchase-price>74</average-purchase-price>
    <lastpaid>72.15</lastpaid>
    <purchasediff>-2.50</purchasediff>
    <diff1 dprc>1.33426966292135</diff1 dprc>
    <asset>108225.00</asset>
  </instrument>
  <summary>
    <cash>59500.00</cash>
    <asset>108225.00</asset>
    <purchasevalue>113000.00</purchasevalue>
    <purchasediff>-4775.00</purchasediff>
    <purchasediffprc>-4.23</purchasediffprc>
    <diff1 d>1425.00</diff1 d>
    <diff1 dprc>1.33</diff1 dprc>
    <totalvalue>167725.00</totalvalue>
  </summary>
</holdings-list>
```

The update_unlisted command

Request

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Userid	User id	Y	Numeric
PortfolioId	Portfolio id	Y	Numeric
Instrument	Name of the instrument	Y	String
Price	New price of the instrument	Y	String
Date	Date for the price. Must be formatted YYYY-MM-DD	Y	Date

Response

The command returns the instrument name or an error message:

```
<instrument-updated>  
  <instrument>hus</instrument>  
</instrument-updated>
```

The performance command

Request

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Userid	User id	Y	Numeric
PortfolioId	Portfolio id	Y	Numeric
Startdate	Specifies which date the transaction list should start from.	Y	Date
Enddate	Specifies which date the transaction list should end. Defaults to today.	N	Date
Intraday	If set to Y, the resolution will be in minutes. Defaults to N.	N	String
Resolution	Resolution in days or if Intraday is set to Y, in minutes to return the time series in. Defaults to 1.	N	Numeric

Response

The command returns a block of information for each time period containing the performance of the portfolio.

The create_user command

Request

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Name	Name, email or id of the customer for reference only. This field isn't used by the MPS but setting it makes it possible to track the user between the MPS and the customer database.	N	String

Response

The command returns the user id or an error message:

```
<user-created>
```

```
  <userid>5</userid>
```

```
</user-created>
```

The delete_user command

Request

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Userid	User id	Y	Numeric

Response

The command returns the user id or an error message.

The create_portfolio command

Request

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Userid	User id	Y	Numeric
Name	Portfolio name	Y	String

Response

The command returns the portfolio id or an error message:

```
<portfolio-created>  
  <portfolioid>2</portfolioid>  
  <portfolioname>mats</portfolioname>  
</portfolio-created>
```

The delete_portfolio command

Request

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Userid	User id	Y	Numeric
PortfolioId	Portfolio id	Y	Numeric

Response

The command returns the portfolio id or an error message.

```
<portfolio-deleted>  
  <portfolioid>3</portfolioid>  
</portfolio-deleted>
```

The list_portfolios command

Request

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Userid	User id	Y	Numeric

Response

The command returns a block of information for each portfolio the user have or an error message.

```
<portfolio-list>
  <portfolio>
    <portfolioid>4</portfolioid>
    <name>fonder</name>
    <asset>-1800.00</asset>
    <diff1d>50.00</diff1d>
    <diff1dprc>0.07</diff1dprc>
    <diffpurchase>-1800.00</diffpurchase>
    <diffpurchaseprc>-2.40</diffpurchaseprc>
  </portfolio>
  <portfolio>
    <portfolioid>5</portfolioid>
    <name>mats</name>
    <asset>-1800.00</asset>
    <diff1d>50.00</diff1d>
    <diff1dprc>0.07</diff1dprc>
    <diffpurchase>-1800.00</diffpurchase>
    <diffpurchaseprc>-2.40</diffpurchaseprc>
  </portfolio>
</portfolio-list>
```


The create_watchlist command

Request

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Userid	User id	Y	Numeric
Name	Watchlist name	Y	String

Response

The command returns the watchlist id or an error message:

```
<watchlist-created>  
  <watchlistid>2</watchlistid>  
  <watchlistname>lista</watchlistname>  
</watchlist-created>
```

The delete_watchlist command

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Userid	User id	Y	Numeric
Watchlistid	Watchlist id	Y	Numeric

The command returns the watchlist id or an error message.

```
<watchlist-deleted>  
  <watchlistid>2</watchlistid>  
</watchlist-deleted>
```

The list_watchlists command

Request

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Userid	User id	Y	Numeric

Response

The command returns a block of information for each watchlist the user have:

```
<watchlists-list>
  <watchlist>
    <watchlistid>3</watchlistid>
    <name>lista</name>
  </watchlist>
</watchlists-list>
```

The add_instrument command

Request

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Watchlistid	Watchlist id	Y	Numeric
Insref	Insref for the instruments	Y	Numeric
Quantity	Number of instruments.	N	Numeric
Price	Price of the instrument.	N	Numeric

Response

The command returns or an error message:

```
<watchlist-item-added>  
  <instrument>772</instrument>  
</watchlist-item-added>
```

The delete_instrument command

Request

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Watchlistid	Watchlist id	Y	Numeric
Insref	Insref for the instruments	Y	Numeric

Response

The command returns watchlist_id or an error message:

```
<watchlist-item-deleted>  
  <watchlistid>2</watchlistid>  
</watchlist-item-deleted>
```

The list_watchlist command

Request

Parameter	Description	Required	Type
Domain	Domain login name	Y	String
Pwd	Password for the domain	Y	String
Userid	User id	Y	Numeric
Watchlistid	Watchlist id	Y	Numeric

Response

The command returns a block of information for each watchlist the user have:

```
<watchlist-list>  
  <watchlistid>3</watchlistid>  
  <instrument>  
    <insref>772</insref>  
    <name>Ericsson B</name>  
  </instrument>  
</watchlist-list>
```

Appendix A - Error codes

Code	Error	Description
0	OK/SUCCESS	
-1	CREATEUSER_LONGNAME	Name parameter is too long max length is 254 chars
-10	CREATEPORTFOLIO_ALREADYEXISTS	Portfolio already exists
-11	CREATEPORTFOLIO_NOUSERID	No userid in query
-12	CREATEPORTFOLIO_NONAME	No name in query
-13	CREATEPORTFOLIO_INVALIDUSERID	Invalid userid
-14	CREATEPORTFOLIO_UNKNOWNUSERID	User does not exist
-20	DELETEPORTFOLIO_INVALIDPORTFOLIOID	Invalid portfolioid
-21	DELETEPORTFOLIO_NOUSERID	No userid in query
-22	DELETEPORTFOLIO_INVALIDUSERID	Invalid userid
-23	DELETEPORTFOLIO_NOPORTFOLIO	Portfolio does not exist
-24	DELETEPORTFOLIO_UNKNOWNUSERID	User does not exist
-25	DELETEPORTFOLIO_UNKNOWNUSERID	Portfolio does not exist
-30	LISTPORTFOLIOS_NOUSERID	No userid in query
-31	LISTPORTFOLIOS_INVALIDUSERID	Invalid userid
-40	INSERTTRANSACTION_UNKNOWNINSTRUMENT	Instrument not in holdings
-41	INSERTTRANSACTION_NOPORTFOLIO	No portfolioid in query
-42	INSERTTRANSACTION_NOTYPE	No type parameter in query
-43	INSERTTRANSACTION_NODATE	No date parameter in query
-44	INSERTTRANSACTION_NOTIME	No time parameter in query
-45	INSERTTRANSACTION_NOINSTRUMENT	Instrument parameter can not be set for this type
-46	INSERTTRANSACTION_NOPRICE	No price paramter in query
-47	INSERTTRANSACTION_NOQUANTITY	No quantity parameter in query
-48	INSERTTRANSACTION_NOAMOUNT	No amount parameter in query

-49	INSERTTRANSACTION_NOINSREF	Insref parameter is missing
-50	INSERTTRANSACTION_INVALIDINSREF	Insref not in holdings
-51	INSERTTRANSACTION_TOOBIGSALE	Insufficient holdings
-52	INSERTTRANSACTION_NOEXCHANGERATE	Currency requires exchangerate
-53	INSERTTRANSACTION_NOCURRENCY	Exchangerate requires currency
-54	INSERTTRANSACTION_UNKNOWNPORTFOLIOID	Portfolio does not exist
-55	INSERTTRANSACTION_NOINSTRUMENT2	No instrument parameter in query
-56	INSERTTRANSACTION_NOINSREF2	Insref parameter can not be set for this type
-70	MODIFYTRANSACTION_NOINSREF2	No insref parameter in query
-71	MODIFYTRANSACTION_NOPORTFOLIO	No portfolioid parameter in query
-72	MODIFYTRANSACTION_NOTRANSACTIONID	No transactionid parameter in query
-73	MODIFYTRANSACTION_NODATE	No date parameter in query
-74	MODIFYTRANSACTION_NOTIME	No time parameter in query
-75	MODIFYTRANSACTION_INVALIDPORTFOLIOID	Invalid portfolioid
-76	MODIFYTRANSACTION_INVALIDTRANSACTIONID	Invalid transactionid
-77	MODIFYTRANSACTION_CORRUPTTRANSACTION	Transaction is corrupt please contact support
-78	MODIFYTRANSACTION_CORRUPTINSREF	Corrupt transaction contact support
-79	MODIFYTRANSACTION_NOPARAMETERS	No valid parameters for this transaction
-80	MODIFYTRANSACTION_NOINSTRUMENT	Instrument parameter can not be set for this transaction type
-81	MODIFYTRANSACTION_NOINSREF	Insref parameter can not be set for this transaction type
-82	MODIFYTRANSACTION_NOPRICE	No price parameter in query
-83	MODIFYTRANSACTION_NOQUANTITY	No quantity parameter in query
-84	MODIFYTRANSACTION_NOEXCHANGERATE	Currency requires exchangerate
-85	MODIFYTRANSACTION_NOCURRENCY	Exchangerate requires currency
-86	MODIFYTRANSACTION_NOTYPE	No type parameter in query

-87	MODIFYTRANSACTION_TYPEMISMATCH	Transaction type is mismatched
-88	MODIFYTRANSACTION_WRONGINSREF	Insref change is not allowed
-89	MODIFYTRANSACTION_WRONGINSTRUMENT	Instrument change is not allowed
-90	MODIFYTRANSACTION_NOINSTRUMENT2	No instrument parameter in query
-100	LISTTRANSACTION_NOPORTFOLIO	No portfolioid parameter in query
-110	DELETETRANSACTION_NOPORTFOLIO	No portfolioid parameter in query
-111	DELETETRANSACTION_NOTRANSACTIONID	No transactionid parameter in query
-112	DELETETRANSACTION_INVALIDTRANSACTIONID	Invalid transactionid
-113	DELETETRANSACTION_CORRUPTTRANSACTION	Transaction is corrupt, please contact support
-130	LISTHOLDINGS_NOPORTFOLIO	No portfolioid paramteter in query
-140	CREATEWATCHLIST_INTERNALERROR	Internal error
-141	CREATEWATCHLIST_NOUSERID	No userid in query
-142	CREATEWATCHLIST_NONAME	No name in query
-143	CREATEWATCHLIST_INVALIDUSERID	Invalid userid
-144	CREATEWATCHLIST_ALREADYEXISTS	Watchlist already exists
-150	ADDWATCHLIST_NOUSERID	No userid in query
-151	ADDWATCHLIST_INVALIDUSERID	Invalid userid
-152	ADDWATCHLIST_NOWATCHLISTID	“No watchlistid in query
-153	ADDWATCHLIST_UNKNOWNWATCHLISTID	Unknown watchlist
-154	ADDWATCHLIST_NOINSTRUMENT	No insref in query
-170	DELWATCHLISTITEM_NOUSERID	No userid in query
-171	DELWATCHLISTITEM_INVALIDUSERID	Invalid userid
-172	DELWATCHLISTITEM_NOWATCHLISTID	No watchlistid in query
-173	DELWATCHLISTITEM_UNKNOWNWATCHLISTID	Unknown watchlist

-174	DELWATCHLISTITEM_NOINSTRUMENT	No insref in query
-175	DELWATCHLISTITEM_INSTRUMENTNOTEXIST	Instrument not in watchlist
-190	DELWATCHLIST_NOUSERID	No userid in query
-191	DELWATCHLIST_INVALIDUSERID	Invalid userid
-192	DELWATCHLIST_NOWATCHLISTID	No watchlistid in query
-193	DELWATCHLIST_UNKNOWNWATCHLISTID	Unknown watchlist
-200	LISTWATCHLIST_NOUSERID	No userid in query
-201	LISTWATCHLIST_INVALIDUSERID	Invalid userid
-202	LISTWATCHLIST_NOWATCHLISTID	No watchlistid in query
-203	LISTWATCHLIST_UNKNOWNWATCHLIST	Unknown watchlist
-210	DELETEUSER_NOUSERID	No userid in query
-211	DELETEUSER_UNKNOWNUSERID	Unknown userid
-220	RETCODE_UPDATEUNLISTED_NOPORTFOLIOID	No portfolioid in query
-221	UPDATEUNLISTED_NOINSTRUMENT	No instrument in query
-222	UPDATEUNLISTED_NOPRICE	No price in query
-223	UPDATEUNLISTED_NODATE	No date in query
-224	UPDATEINSTRUMENT_UNKNOWNINSTRUMENT	Instrument not found in portfolio
-300	DATABASE_NULLERROR	Internal error
-301	DATABASE_NOCONNECTION	Connection to database broken
-302	DATABASE_INTERNALERROR	Internal database error
-303	DATABASE_RESULTERROR	Internal database error
-304	DATABASE_FIELDERROR	Internal database error
-400	QUERYERROR_NOCOMMAND	No command in query
-401	QUERYERROR_NODOMAIN	No domain in query
-402	QUERYERROR_NOPASSWORD	No password in query
-403	QUERYERROR_INVALIDLOGIN	Invalid login
-404	QUERYERROR_INVALIDDOMAIN	Invalid domainid
-405	QUERYERROR_INVALIDCOMMAND	Invalid command

-406	QUERYERROR_INVALIDDATE	Invalid date
-407	QUERYERROR_INVALIDTIME	Invalid time
-408	QUERYERROR_INVALIDINSTRUMENT	Invalid instrument
-409	QUERYERROR_INVALIDQUANTITY	Invalid quantity
-410	QUERYERROR_INVALIDAMOUNT	Invalid amount
-411	QUERYERROR_INVALIDADJUSTED	Invalid adjusted
-412	QUERYERROR_INVALIDFEE	Invalid fee
-413	QUERYERROR_INVALIDTRANSACTIONID	Invalid transactionid
-414	QUERYERROR_INVALIDSTARTDATE	Invalid startdate
-415	QUERYERROR_INVALIDENDDATE	Invalid enddate
-416	QUERYERROR_INVALIDINTRADAY	Invalid intraday (y or n)
-417	QUERYERROR_INVALIDRESOLUTION	Invalid resolution (0 - 365)
-418	QUERYERROR_INVALIDUSERID	Invalid userid
-419	QUERYERROR_INVALIDTYPE	Invalid type
-420	QUERYERROR_INVALIDPORTFOLIOID	Invalid portfolioid
-421	QUERYERROR_INVALIDWATCHLISTID	Invalid watchlistid
-422	QUERYERROR_INVALIDEXCHANGERATE	Invalid exchangerate
-423	QUERYERROR_NAMETOLONG	Name parameter is too long max length is 254 chars
-424	QUERYERROR_INVALIDIPROFFLOSS	Invalid profloss value (y or n)
-425	QUERYERROR_INVALIDPRICE	Invalid price
-426	QUERYERROR_INVALIDINSREF	Invalid insref
-427	QUERYERROR_INVALIDCOMMENT	Comment parameter is too long, max (254)
-500	RECALC_ERROR	Internal error
-501	RECALC_INVALIDRESULT	Transactions and holdings does not match