

**TPEXPORT(3)**

REVISION HISTORY			
NUMBER	DATE	DESCRIPTION	NAME

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## Chapter 1

# SYNOPSIS

```
#include <atmi.h>
```

```
int tpexport(char *ibuf, long ilen, char *ostr, long *olen, long flags);
```

For XATMI client link with *-latmiclt -latmi -lview -lnstd -lpthread -lrt -lm*

For XATMI server link with *-latmisrvl -latmisrvnomainl -latmisrvinteg -latmi -lview -lnstd -lpthread -lrt -lm*

## Chapter 2

# DESCRIPTION

Function converts typed buffer to JSON formatted text buffer.

*ibuf* is XATMI buffer which will be exported to JSON formatted text buffer. *ilen* is used for buffer types such **CARRAY**, where buffer length is not described by type. *ostr* exported output JSON formatted text buffer. If **TPEX\_STRING** flag is set, then JSON buffer will be converted to base64. *olen* define maximum size for *ostr*

**JSON tags in the exported file:**

- **buftype** - which type of buffer exported (STRING, UBF, VIEW, CARRAY, JSON)
- **version** - exported version of JSON text buffer
- **subtype** - contains name of VIEW buffer, used only for exported VIEWs
- **data** - contains JSON formatted data

For example following UBF buffer

```
T_SHORT_FLD      1765
T_LONG_FLD       3333111
T_LONG_FLD       2
T_CHAR_FLD       A
T_FLOAT_FLD      1.00000
T_DOUBLE_FLD     1111.220000
T_DOUBLE_FLD     333.000000
T_DOUBLE_FLD     444.000000
T_STRING_FLD     HELLO WORLD
T_CARRAY_FLD     \00\01\02\03HELLO BINARY\04\05\00
```

Will be exported to following JSON

```
{
  "buftype": "UBF",
  "version": 1,
  "data": {
    {
      "T_SHORT_FLD": 1765,
      "T_LONG_FLD": [3333111, 2],
      "T_CHAR_FLD": "A",
      "T_FLOAT_FLD": 1,
      "T_DOUBLE_FLD": [1111.220000, 333, 444],
      "T_STRING_FLD": "HELLO WORLD",
      "T_CARRAY_FLD": "AAECA0hFTExPIEJJTkFSWQQFAA=="
    }
  }
}
```

For example following VIEW

```
VIEW MYVIEW56
#type      cname      fbname      count      flag      size      null
short      tshort1    -           1           -          -          -
long       tlong1     -           1           -          -          -
char       tchar1     -           1           -          -          -
float      tfloat1    -           1           -          -          -
double     tdouble1   -           1           -          -          -
string     tstring1   -           1           -          15         -
carray     tcarray1   -           1           -          10         -
END
```

Will be exported into following JSON

```
{
  "buftype": "VIEW",
  "version": 1,
  "subtype": "MYVIEW56",
  "data": {
    {
      "MYVIEW56\": {
        {
          "tshort1": 1,
          "tlong1": 2,
          "tchar1": "A",
          "tfloat1": 1,
          "tdouble1": 21,
          "tstring1": "ABC",
          "tcarray1": "SEVMTE8AAAAAAA=="
        }
      }
    }
  }
}
```

For example following text buffer

```
HELLO WORLD
```

Will be imported into following JSON

```
{
  "buftype": "STRING",
  "version": 1,
  "data": "HELLO WORLD"
}
```

For example following CARRAY buffer

```
0000 48 45 4c 4c 4f 20 57 4f 52 4c 44 20 43 41 52 52  HELLO WORLD CARR
0010 41 59                                           AY
```

Will be imported into following JSON

```
{
  "buftype": "CARRAY",
  "version": 1,
  "data": "SEVMTE8gV09STEQgQ0FSUkFZ"
}
```

For example following JSON buffer

```
{
  "T_SHORT_FLD":1765,
  "T_LONG_FLD":[3333111,2],
  "T_CHAR_FLD":"A",
  "T_FLOAT_FLD":1,
  "T_DOUBLE_FLD":[1111.220000,333,444],
  "T_STRING_FLD":"HELLO WORLD",
  "T_CARRAY_FLD":"AAECA0hFTExPIEJJTkFSWQQFAA=="
}
```

Will be imported into following JSON

```
{
  "buftype":"JSON",
  "version":1,
  "data":
    { "T_SHORT_FLD":1765,
      "T_LONG_FLD":[3333111,2],
      "T_CHAR_FLD":"A",
      "T_FLOAT_FLD":1,
      "T_DOUBLE_FLD":[1111.220000,333,444],
      "T_STRING_FLD":"HELLO WORLD",
      "T_CARRAY_FLD":"AAECA0hFTExPIEJJTkFSWQQFAA==" }
}
```

String type data such as string VIEW fields, UBF **BFLD\_STRING** fields or **STRING** buffers must correspond to **UTF-8** encoding.

## Chapter 3

# RETURN VALUE

On success, **tpexport()** return 0; on error, -1 is returned, with **tperrno** set to indicate the error.

## Chapter 4

# ERRORS

Note that `tpsterror()` returns generic error message plus custom message with debug info from last function call.

**TPEINVAL** Invalid JSON or invalid base64 encoding, *ibuf* is NULL or *ostr* is NULL.

**TPEOTYPE** Invalid type specified to function. **VIEW** sub-type not found or environment is not configured.

**TPESYSTEM** System failure occurred during serving. See logs i.e. user log, or debugs for more info. Strings does not correspond to **UTF-8** format.

**TPEOS** System failure occurred during serving. See logs i.e. user log, or debugs for more info. In case of insufficient memory this error will be generated too.

## Chapter 5

# EXAMPLE

Sample code see under:

- `atmitest/test056_tpimpexp/atmict56_ubf.c` - import UBF buffer
  - `atmitest/test056_tpimpexp/atmict56_view.c` - import VIEW buffer
  - `atmitest/test056_tpimpexp/atmict56_carray.c` - import CARRAY buffer
  - `atmitest/test056_tpimpexp/atmict56_json.c` - import JSON buffer
  - `atmitest/test056_tpimpexp/atmict56_string.c` - import STRING buffer
-

## Chapter 6

# BUGS

Report bugs to [support@mavimax.com](mailto:support@mavimax.com)

## Chapter 7

## SEE ALSO

**tpimport(3)**

## **Chapter 8**

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