



## IMPLICIT VARIABLES

- **app** - name of the application that the script is running against.
- **errorgroup/errorkey/params** . Used to raise an error (see examples).
- **interactive** - Indicates whether the script is running in an active user session or a non-user background session, such as integration transaction processing.
- **mbo** - the MBO that is being worked on.
- **mboName** - the name of the current MBO in the context of the script that is running.
- **mboValue** - instance of the MBO attribute (attribute launch point only).
- **onadd/ondelete/onupdate** - indicates whether the business object that the script is running against is being inserted/created/deleted/updated.
- **user** - the userid of the user who is logged in.
- **userinfo** - reference to UserInfo for the current context.
- **service** - utility class with useful methods.

Examples below. Full list of implicit variables [here](#).

## GET ATTRIBUTES

## Get attribute value

```
desc = mbo.getString("DESCRIPTION")
wopri = mbo.getInt("WOPRIORITY")
woid = mbo.getLong("WORKORDERID")
value = mbo.getDouble("MEASUREMENTVALUE")
targd = mbo.getDate("TARGSTARTDATE")
hasp = mbo.getBoolean("HASPARENT")
```

## Get initial/current/previous value

```
mbo.getString("DESCRIPTION") # easy way to get the current value
# the MboValue object provide the 3 values
mboValue = mbo.getMboValue("DESCRIPTION")
initValue = mboValue.getInitialValue().asString()
currValue = mboValue.getCurrentValue().asString()
prevValue = mboValue.getPreviousValue().asString()
```

## Check attribute value

```
if mbo.getString("STATUS") == 'APPR':
```

## Check if attribute is null

```
if mbo.isNull("DESCRIPTION"):
```

## Check if attribute has been modified

```
If mbo.isModified("DESCRIPTION "):
```

## SET ATTRIBUTES

## Set attribute value

```
mbo.setValue("DESCRIPTION", "New description")
```

## Set attribute value with modifiers

```
from psdi.mbo import MboConstants
mbo.setValue("DESCRIPTION", "New description", MboConstants.NOACCESSCHECK)
mbo.setValue("DESCRIPTION", "New description", MboConstants.NOVALIDATION)
mbo.setValue("DESCRIPTION", "New description", MboConstants.NOACTION)
mbo.setValue("DESCRIPTION", "New description", MboConstants.NOVALIDATION_AND_NOACTION)
```

## Set field metadata (required, read-only)

```
from psdi.mbo import MboConstants
mbo.setFieldFlag("FROMSTORELOC", MboConstants.READONLY, False)
mbo.setFieldFlag("FROMSTORELOC", MboConstants.REQUIRED, True)
```

## MBOSET

## Get current MboSet

```
woSet = mbo.getThisMboSet()
```

## Get MboSet from relationship

```
woSet = mbo.getMboSet("WORKORDER")
```

## Get MboSet from MXServer (breaks transaction)

```
from psdi.server import MXServer
woSet = MXServer.getMXServer().getMboSet("WORKORDER", mbo.getUserInfo())
woSet.setWhere("WONUM='100'")
```

## Check if MboSet is empty

```
if mbo.getMboSet("WORKORDER").isEmpty():
```

## Count records in an MboSet

```
count = mbo.getMboSet("WORKORDER").count()
```

## Add record to MboSet

```
polines = po.getMboSet("POLINE")
poline = polines.add()
poline.setValue("ITEMNUM", "PUMP100")
```



## LOOPING THROUGH MBOSET

Loop with for/count

```
woSet = session.getMboSet('WORKORDER')
for i in range(0, woSet.count()):
    wo = woSet.getMbo(i)
    print "Workorder ", wo.getString("WONUM")
```

Loop with moveFirst/moveNext (preferred)

```
woSet = mbo.getMboSet("WORKORDER")
wo = woSet.moveFirst()
while (wo):
    print "Workorder ", wo.getString("WONUM")
    wo = woSet.moveToNext()
```

## RAISE ERROR

Setting errorgroup/errorkey (Maximo 7.5)

```
params = [mbo.getString("ASSETNUM")]
errorgroup = "msggroup"
errorkey = "msg"
```

With service object (Maximo 7.6)

```
params = [mbo.getString("ASSETNUM")]
service.error("msggroup", "msg", params)
```

## YES/NO/CANCEL

```
def yes():
    # handle Yes button press
def no():
    # handle No button press
def dflt():
    # display the initial message
    service.yncerror("msggroup", "msg")
cases = {service.YNC_NULL:dflt, service.YNC_YES:yes, service.YNC_NO:no}
if interactive:
    # service yncuserinput method to trigger the interaction
    x = service.yncuserinput()
    # process user input using case statement
    cases[x]()
```

## LOGGING

With service object

```
service.log_warn("Warning message")
service.log_info("Informational message")
service.log_debug("Debug message")
```

Custom logger

```
from psdi.util.logging import MXLoggerFactory
logger = MXLoggerFactory.getLogger("maximo.mxdev")
logger.debug("Debug message") # error/warn/info/debug
```

## EXECUTE SCRIPT ONLY IF RUNNING FROM GUI

```
if interactive == True:
    # Things to do if script is running in user Context
else:
    # Things to do if script is called by Crontask, MIF, ...
```

## READING SYSTEM PROPERTY

```
from psdi.server import MXServer
configData = MXServer.getMXServer().getConfig()
maxProperty = configData.getProperty("mail.smtp.host")
```

## SAVING MBOSET

Calling *MboSet.save()* method is not required when using relationships

```
woSet = mbo.getMboSet("WORKORDER")
wo = woSet.getMbo(0)
wo.setValue("DESCRIPTION", "New")
woSet.save() # this is not required!
```

The *MxServer.getMboSet* breaks the transaction so *save()* is required

```
woSet = MXServer.getMXServer().getMboSet("WORKORDER", mbo.getUserInfo())
woSet.setWhere("WONUM='1000'")
wo = woSet.getMbo(0)
mbo.setValue("DESCRIPTION", "New Test Asset!")
woSet.save()
```