

Python Gateway ??? V?Execute??

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[Minoru Horita](#) · 2020??28?



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Python Gateway ??? V?Execute??

?????????InterSystems?????????????Python Gateway????????? ????InterSystems IRIS??Python????????????? ????InterSystems IRIS??Python?????????

- ???Python?????????
- InterSystems IRIS??Python?????????????????
- Python????????????????????????????????????????????????????????????
- InterSystems IRIS??Python????????????????????????????????????????

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- [??? I?????????????](#)
- [??? II?????????????????????????????????????](#)
- [??? III?????????](#)
- [??? IV?????????????](#)
- ??? V?Execute?? <-- ?????????????????????????????????????????
- ??? VI?????????????
- ??? VII?????????????????
- ??? VIII????????ML Toolkit

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IRIS????????????Python????????????????????????????????????????????????????????????

Execute??

???????????????????????? ?API?2????????????????????????????????????

- ExecuteFunction
- ExecuteFunctionArgs

???????????????????????? ExecuteFunction ????????????????????????????????????? %List, %Collection.AbstractArray
???????????????????????? ExecuteFunctionArgs ? args... ?????????????????????????????????????????????????????????
????ExecuteFunctionArgs ? ExecuteFunction ?????????????

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- ???
- ?????
- ??
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- ????????

ExecuteFunction

- ExecuteFunction ? isc.py.Main ??????????? ???????
- function - ?????????????? ?????????????random.randint??
- variable - ???????Python??????????
- positionalArguments - Python????????????? ???????????????
 - + \$lb(val1, val2, ..., valN)
 - + %Collection.AbstractIterator ???????
 - + JSON??
- keywordArguments - Python????????????????? ???????????????
 - + \$lb(\$lb(name1, val1), \$lb(name2, val2), ..., \$lb(nameN, valN))
 - + %Collection.AbstractArray ???????
 - + ??????JSON?????????
- serialization - ???????????????????
- result - ???????????????????

function ?????????????????????

?????????????????

```

set sc = ##class(isc.py.Main).ImportModule("random", ,.random)

set posList = $lb(1, 100)
set posCollection = ##class(%ListOfDataTypes).%New()
do posCollection.Insert(1)
do posCollection.Insert(100)
set posDynamic = [1, 100]

for positionalArguments = posList,posCollection,posDynamic {
    set sc = ##class(isc.py.Main).ExecuteFunction(random _ ".randint", positionalArgu
ments,,,result)
    write result,!
}

set kwList = $lb($lb("a", 1), $lb("b", 100))
set kwCollection = ##class(%ArrayOfDataTypes).%New()
do kwCollection.SetAt(1, "a")
do kwCollection.SetAt(100, "b")
set kwDynamic = { "a": 1, "b": 100}

for kwArguments = kwList,kwCollection,kwDynamic {
    set sc = ##class(isc.py.Main).ExecuteFunction(random _ ".randint", ,kwArguments,,
.result)
    write result,!
}

set posList = $lb(1)
set kwDynamic = {"b": 100}
set sc = ##class(isc.py.Main).ExecuteFunction(random _ ".randint", posList, kwDynamic
,,,result)
write result,!

set posList = ##class(isc.py.util.Converter).EscapeStringList($lb("Positional: {0} {1
}! Keyword: {name}, {name2}", "Hello", "World"))
set kwDynamic = {"name":(##class(isc.py.util.Converter).EscapeString("Alice")),

```

```

    "name2":(##class(isc.py.util.Converter).EscapeString("Bob"))}
set sc = ##class(isc.py.Main).ExecuteFunction("str.format", posList, kwDynamic,,.result)
write result,!

```

ExecuteFunctionArgs

ExecuteFunctionArgs ? isc.py.Main ?????????? ??????
 - function - ?????????????? ??????????????random.randint??
 - variable - ?????????Python?????????
 - serialization - ??????????????????
 - result - ??????????????????
 - args... - ??????????

ExecuteFunctionArgs ????????????????????????????????????????????????????????????? ExecuteFunctionArgs
 ?????????????????????????????????????????????????????????????ExecuteFunction ??????????????????????????? ??

```

set sc = ##class(isc.py.Main).ImportModule("random", ,.random)
set sc = ##class(isc.py.Main).ExecuteFunctionArgs(random _ ".randint", , ,.result, 1, 100)
write result,!

```

```

set string = ##class(isc.py.util.Converter).EscapeString("Positional: {0}, {1}, {2}, {3}")
set arg1 = ##class(isc.py.util.Converter).EscapeString("Hello")
set arg2 = ##class(isc.py.util.Converter).EscapeString("World")
set arg3 = ##class(isc.py.util.Converter).EscapeString("Alice")
set arg4 = ##class(isc.py.util.Converter).EscapeString("Bob")
set sc = ##class(isc.py.Main).ExecuteFunctionArgs("str.format",,,,result, string, arg 1, arg2, arg3, arg4)
write result,!

```

```

set string = ##class(isc.py.util.Converter).EscapeString("Positional: {0} {1}! Keyword: {name}, {name2}")
set arg1 = ##class(isc.py.util.Converter).EscapeString("Hello")
set arg2 = ##class(isc.py.util.Converter).EscapeString("World")
set kwargs = "***" _ {"name":"Alice","name2":"Bob"}.%ToJSON()
set sc = ##class(isc.py.Main).ExecuteFunctionArgs("str.format",,,,result, string, arg1, arg2, kwargs)
write result,!

```

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Python Gateway????????InterSystems IRIS?Python???????????????????? ?????????Python?????InterSystems IRIS????????????????????????

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- [Python Gateway](#)
- [Python Gateway??????](#)
- [Python 3.6.7?64????????????????](#)
- [Python?????????/????????](#)

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ML Toolkit???????????????????????????????????????? ML

Toolkit?????????????InterSystems??GitHub?????????????????????????GitHub????????? ??????????Python Gateway???ML

Toolkit???????????????????????????????????????????????????????????? ML Toolkit????????????????????????????????????

[MLToolkit@intersystems.com](https://community.intersystems.com/ml-toolkit) ?????????????????????????????????????????????????????????????

- GitHub???????
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[#Python](#) [#InterSystems](#) [IRIS](#)

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- [Python Gateway ??? IV???????????](#)
- Python Gateway ??? V?Execute??
- [Python Gateway ??? VI: Jupyter](#)

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???URL: <https://jp.community.intersystems.com/post/python-gateway-%E3%83%91%E3%83%BC%E3%83%88-v%EF%BC%9Aexecute%E9%96%A2%E6%95%B0>