

Integrating **NetRexx** Code in **ooRexx** 5.0

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Overview

- [NetRexx](#) integration with [BSF4ooRexx](#)
 - Example
- [ooRexx 5.0](#)
- Integrating [NetRexx](#) into [ooRexx 5.0](#)
 - Example
- Roundup and outlook

NetRexx Integration with BSF4ooRexx, 1

- BSF4ooRexx
 - If NetRexx present, then it automatically turns NetRexx objects into Rexx strings
 - ooRexx can be used by NetRexx
 - Apache's BSF framework
 - Java's `javax.script` framework
 - See samples coming with BSF4ooRexx!
 - Each NetRexx class can be used by ooRexx
 - Apache's BSF framework: must be precompiled!
 - Java's `javax.script` framework: must supply source

NetRexx Integration with BSF4ooRexx, 2

- Example 1
 - NetRexx source stored in a file
 - JSR-223 (`javax.script`) to fetch NetRexx engine
 - Getting default `ScriptContext`
 - Adding an entry "`javax.script.filename`" according to the JSR-223 specifications
 - Using NetRexx engine to put an attribute into its default `ScriptContext`
 - Attribute "`hi`" gets a string from ooRexx
 - NetRexx engine is used to run the NetRexx program which fetches and shows the entries

NetRexx Integration with BSF4ooRexx, 3

```
manager = .bsf~new("javax.script.ScriptEngineManager")
nre=manager~getEngineByName("NetRexx")  -- fetch NetRexx via JSR-223
```

signal on syntax

```
sc=nre~getContext  -- get its default ScriptContext
filename="someNetRexxCode.nrx"
sc~setAttribute(nre~FILENAME, filename, sc~ENGINE_SCOPE)
nre~put("sc", sc)
nre~put("hi", "hello at" .dateTime~new)
say "(ooRexx) executing ["filename"] ..."
res=nre~eval(.bsf~new("java.io.FileReader", filename), sc)
exit
```

syntax:

```
co=condition(o)
say ppCondition2(co)
exit -1
```

```
::requires BSF.CLS  -- get Java bridge
::requires "rgf_util2.rex"  -- get access to ppCondition2()
```

NetRexx Integration with BSF4ooRexx, 4

```
parse source s
say '(nrx) this is NetRexx speaking from:' s
say '(nrx) this is what got sent to me: ' hi
name="javax.script.filename"
say '(nrx)' name ':' sc.getAttribute(name)
```

- Output:

```
(ooRexx) executing [someNetRexxCode.nrx] ...
(nr) this is NetRexx speaking from: Java method someNetRexxCode
(nr) this is what got sent to me: hello at 2018-03-25T17:04:47.514436
(nr) javax.script.filename: someNetRexxCode.nrx
```

ooRexx 5.0

- Many new and useful features!
- **::RESOURCE** directive
 - Allows for storing any kind of text
 - Possible to store code, e.g. NetRexx source code!
 - **.resources** serves as the directory of resources
 - Fetching a resource entry returns an array of strings
 - Using **ooRexx** Array's **toString** method returns a plain string

Integrating **NetRexx** Into **ooRexx** 5.0, 1

- Use a **::resource** directive instead of a file
- Allows one to have all resources in one package, the **ooRexx** program
- Will use JSR-223 to run the **NetRexx** program

Integrating NetRexx Into ooRexx 5.0, 2

```
manager = .bsf~new("javax.script.ScriptEngineManager")
nre=manager~getEngineByName("NetRexx")  -- fetch NetRexx via JSR-223
```

signal on syntax

```
sc=nre~getContext          -- get its default ScriptContext
filename="someNetRexxCode.nrx (really, it is a string)"
sc~setAttribute(nre~FILENAME, filename, sc~ENGINE_SCOPE)
nre~put("sc", sc)
nre~put("hi", "hello at" .dateTime~new)
say "(ooRexx) executing ["filename"] ..."
code=.resources~netRexxCode~toString
res=nre~eval(code, sc)
exit
```

syntax:

```
co=condition(o)
say ppCondition2(co)
exit -1
```

```
::requires BSF.CLS          -- get Java bridge
::requires "rgf_util2.rex"  -- get access to ppCondition2()
```

```
::resource netRexxCode
  parse source s
  say '(nrx) this is NetRexx speaking from:' s
  say '(nrx) this is what got sent to me: ' hi
  name="javax.script.filename"
  say '(nrx)' name':' sc.getAttribute(name)
::END
```

Integrating NetRexx Into ooRexx 5.0, 3

```
::resource netRexxCODE
  parse source s
  say '(nrX) this is NetRexx speaking from:' s
  say '(nrX) this is what got sent to me: ' hi
  name="javax.script.filename"
  say '(nrX)' name ':' sc.getAttribute(name)
::END
```

- Output:

```
(ooRexx) executing [someNetRexxCODE.nrx (really, it is a string)] ...
(nrX) this is NetRexx speaking from: Java method someNetRexxCODE
(nrX) this is what got sent to me: hello at 2018-03-25T17:34:31.229503
(nrX) javax.script.filename: someNetRexxCODE.nrx (really, it is a string)
```

Roundup and Outlook

- [BSF4ooRexx](#) allows
 - Full access to compiled [NetRexx](#) programs/classes
 - Full access to JSR-223
 - [ooRexx](#) programs can run [NetRexx](#) programs from source using [BSF4ooRexx](#)
 - [ooRexx](#) 5.0 programs can embed the source
- Outlook
 - If possible to compile and access [NetRexx](#) classes
 - [ooRexx](#) programs can use [NetRexx](#) e.g. for lambdas and any unforeseen need to use [NetRexx](#) classes on the fly!