

## Article

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## Parameter passing to Language Extensions

IRIS and Caché / Ensemble offer the possibility to add [Languages Extension](#) as SystemFunctions, SystemVariables, SystemCommands

The related [documentation](#) tells you where to add the system-wide extension. Parameter passing is not covered explicitly.

In principal, it is always a call for a subroutine. And at the end, you terminate with **QUIT** returning a value or not.

### SystemFunctions

You call them as any other standard system function with all required parameters in parenthesis.

eg **\$ZZR(47,11)** and it will be processed. Just mentioned for completeness.

### SystemVariables

There are 2 use cases: requesting a value **WRITE \$ZZR** or setting a value **SET \$ZZR=17**

The related [common](#) function has to detect what is going on. Like this:

```
%LANGV00 ;
ZZR(%a) public {
    if $d(%a) set ^mtemp.zzz($j)=%a quit
    quit $g(^mtemp.zzz($j))
}
```

### SystemCommands

This is a little bit tricky as a distinction between multiple arguments and multiple parameters is required.

Multiple arguments are separated by a comma **",": ZZR arg1,arg2,..**

But if you require more than a single value as parameters

they have to be separated by colons **":": ZZR par11:par12:par13,**

**par21::par23, ::par33, par41, :par52**

or just nothing **ZZR**

The code should be prepared to handle missing parameters.

It is the decision of your code if the last parameter is interpreted as a timeout or anything else.

It is typically ended with **QUIT** without returning any value.

```
%LANGC00 ;
ZZR(%a,%b,%c) public {
    write $g(%a,"no a"), "#",!
    , $g(%b,"no b"), "#",!
    , $g(%c,"no c"), "*",!
    quit
}
```

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