

## Article

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## Calculating detailed class/table size

In the good old days (tm) determining the size of the data, streams, and indices for a class/table was easy - you just ran %GSize and check D, S, and I globals respectively.

However, nowadays sharding, optimized global names, and indices in separate globals produce %GSize output looking like this:

```
Global Size Display of /irissys/data/IRIS/mgr/irisshard/
1:35 PM Dec 02 2020
```

IRIS.Msg	1	IRIS.MsgNames	1	IRIS.SM.Shard	1
IS.DGoWeK.1	24359	IS.DGoWeK.2	3	IS.DGoWeK.3	2810
IS.DGoWeK.4	2542	IS.V0Zli.1	373	IS.V0Zli.2	2
IS.k22Ht.1	238028	IS.k22Ht.2	3	IS.k22Ht.3	25819
IS.k22Ht.4	7426	ISC.Src.Jrn	1	ROUTINE	1
oddBIND	1	oddCOM	1	oddDEF	1
oddDEP	1	oddEXT	1	oddEXTR	1
oddMAP	1	oddMETA	1	oddPKG	1
oddPROC	1	oddPROJECT	1	oddSQL	1
oddStudioDocument	1	oddStudioMenu	1	oddTSQL	1
oddXML	1	rBACKUP	1	rINC	1
rINCSAVE	1	rINDEX	1	rINDEXCLASS	1
rINDEXEXT	7	rINDEXSQL	1	rMAC	1
rMACSAVE	1	rMAP	1	rOBJ	1

```
TOTAL: 301403
```

Sure, you can follow the storage definitions and decode this to understand where your space has gone but it's not obvious anymore.

Enter [ClassSize query](#) a custom tvf showing you globals related to classes, their size, and function.

Call it with two arguments:

- package - where to search for persistent classes
- fast - if true returns only allocated space

Here's what it looks like on a combination of sharded and non-sharded classes:

```
SELECT *
FROM Utils.ClassSize('isc.ecom.model',0)
```

Row count: 23 Performance: 10.635 seconds 2095 global references 236596207 commands executed 0 disk read latency (ms) Cached Quer

Class	Sharded	Type	SubType	Global	Allocated	Used	Directory
isc.ecom.model.Category	0	data		^isc.ecom.model.CategoryD	0	0	/irissys/data/IRIS/mgr/irisdms/
isc.ecom.model.Category	0	index		^isc.ecom.model.CategoryI	0	0	/irissys/data/IRIS/mgr/irisdms/
isc.ecom.model.Category	0	stream		^isc.ecom.model.CategoryS	0	0	/irissys/data/IRIS/mgr/irisdms/
isc.ecom.model.Category	0	index	DDLBEIndex	^E9Oc.Efmv.2	0	0	/irissys/data/IRIS/mgr/irisdms/
isc.ecom.model.Customer	1	data		^IS.V0Zli.1	3	2	/irissys/data/IRIS/mgr/irisshard/
isc.ecom.model.Customer	1	index		^IS.V0Zli.I	0	0	/irissys/data/IRIS/mgr/irisshard/
isc.ecom.model.Customer	1	stream		^IS.V0Zli.S	0	0	/irissys/data/IRIS/mgr/irisshard/
isc.ecom.model.Customer	1	index	DDLBEIndex	^IS.V0Zli.2	0	0	/irissys/data/IRIS/mgr/irisshard/
isc.ecom.model.Order	1	data		^IS.DGoWeK.1	190	145	/irissys/data/IRIS/mgr/irisshard/
isc.ecom.model.Order	1	index		^IS.DGoWeK.I	0	0	/irissys/data/IRIS/mgr/irisshard/
isc.ecom.model.Order	1	stream		^IS.DGoWeK.S	0	0	/irissys/data/IRIS/mgr/irisshard/
isc.ecom.model.Order	1	index	DDLBEIndex	^IS.DGoWeK.2	0	0	/irissys/data/IRIS/mgr/irisshard/
isc.ecom.model.Order	1	index	xCustomer	^IS.DGoWeK.3	22	16	/irissys/data/IRIS/mgr/irisshard/
isc.ecom.model.Order	1	index	xOrderedAt	^IS.DGoWeK.4	20	15	/irissys/data/IRIS/mgr/irisshard/
isc.ecom.model.OrderItem	1	data		^IS.k22Ht.1	1860	1418	/irissys/data/IRIS/mgr/irisshard/
isc.ecom.model.OrderItem	1	index		^IS.k22Ht.I	0	0	/irissys/data/IRIS/mgr/irisshard/
isc.ecom.model.OrderItem	1	stream		^IS.k22Ht.S	0	0	/irissys/data/IRIS/mgr/irisshard/
isc.ecom.model.OrderItem	1	index	DDLBEIndex	^IS.k22Ht.2	0	0	/irissys/data/IRIS/mgr/irisshard/
isc.ecom.model.OrderItem	1	index	xOrder	^IS.k22Ht.3	202	161	/irissys/data/IRIS/mgr/irisshard/
isc.ecom.model.OrderItem	1	index	xProduct	^IS.k22Ht.4	58	43	/irissys/data/IRIS/mgr/irisshard/
isc.ecom.model.Product	0	data		^isc.ecom.model.ProductD	0	0	/irissys/data/IRIS/mgr/irisdms/
isc.ecom.model.Product	0	index		^isc.ecom.model.ProductI	0	0	/irissys/data/IRIS/mgr/irisdms/
isc.ecom.model.Product	0	stream		^isc.ecom.model.ProductS	0	0	/irissys/data/IRIS/mgr/irisdms/

23 row(s) affected

The limitation is - currently, only the info about the current shard is returned for sharded classes.

[#Sharding](#) [#SQL](#) [#InterSystems IRIS](#)

[Check the related application on InterSystems Open Exchange](#)

Source URL: <https://community.intersystems.com/post/calculating-detailed-class-table-size>