Resolving performance problem caused by cursor in AX2012

FETCH API\_CURSOR0000000002F4EA78

AX2012 uses 2 types of cursors that are using to select the data.

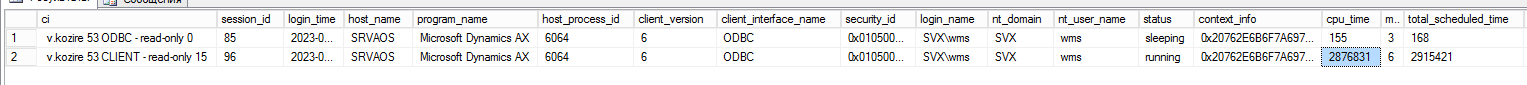
For the first type, you may see the exact query in SQL Management studio and TOP SQL view. For the second type the only

select cast(context\_info as varchar(128)) as ci , \*

from sys.dm\_exec\_sessions

where program\_name like N'%Dynamics%'

and cast(context\_info as varchar(128)) like N'%v.kozire%'



To find the active cursors the following statements may be used. Often there are not so many active cursor, so this select should output not so many records.

Also the issue with this query as it displays only active cursors, so you need to run it several times in order to get some results

SELECT c.session\_id, c.creation\_time, c.reads, c.writes,

sp.blocked, sp.waitresource, loginame = UPPER(sp.loginame),

dbname = DB\_NAME(sp.dbid), sp.status, open\_tran = NULLIF(sp.open\_tran, 0),

application = UPPER(program\_name), command = sp.cmd, waittime = NULLIF(sp.waittime, 0),

sp.hostname, t.text as curtext, y.text as proctext

FROM sys.dm\_exec\_cursors (0) c

CROSS APPLY sys.dm\_exec\_sql\_text (c.sql\_handle) t

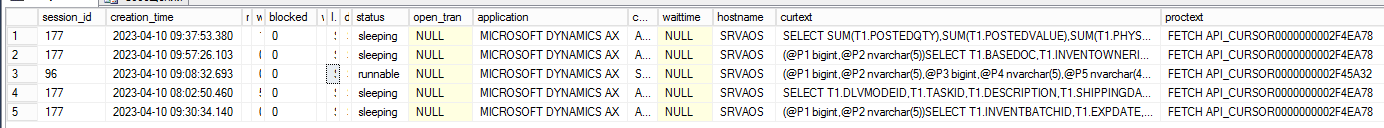
join sysprocesses sp on c.session\_id=sp.spid

cross apply sys.dm\_exec\_sql\_text(sp.sql\_handle) y

where y.text like 'FETCH%'

order by c.reads desc

the output will contain



declare @P1 bigint,@P2 nvarchar(5),@P3 bigint,@P4 nvarchar(5),@P5 nvarchar(41)

SELECT T1.DELIVERYNAME,T1.DELIVERNOW,T1.REMAINBEFORE,T1.REMAINAFTER,T1.INVENTNOW,T1.REMAINBEFOREINVENT,T1.REMAINAFTERINVENT,T1.LINENUM,T1.SALESLINERECID,T1.ITEMID,T1.COMPLETE,T1.LINEAMOUNT,T1.CUSTACCOUNT,T1.INVOICEACCOUNT,T1.PARMID,T1.CHANGEDMANUALLY,T1.CLOSED,T1.INVENTDIMID,T1.INVENTTRANSID,T1.WMSORDER,T1.SCRAP,T1.ORIGSALESID,T1.SHIPCARRIERID,T1.TABLEREFID,T1.SHIPCARRIERACCOUNT,T1.DLVMODE,T1.SALESCATEGORY,T1.REMAINBEFOREINVENTPHYSICAL,T1.DELIVERYPOSTALADDRESS,T1.SHIPCARRIERPOSTALADDRESS,T1.PREVIOUSDELIVERNOW,T1.PREVIOUSINVENTNOW,T1.POSTINGPROFILE\_RU,T1.INVENTPROFILETYPE\_RU,T1.WMS\_SORTCODE,T1.INVENTOWNERID\_RU,T1.KDV\_RESERVPHYSICAL,T1.ZPARMLINEPRIORITY,T1.RECVERSION,T1.PARTITION,T1.RECID,T2.SALESID,T2.LINENUM,T2.ITEMID,T2.SALESSTATUS,T2.NAME,T2.EXTERNALITEMID,T2.QTYORDERED,T2.SALESDELIVERNOW,T2.REMAINSALESPHYSICAL,T2.REMAINSALESFINANCIAL,T2.COSTPRICE,T2.SALESPRICE,T2.CURRENCYCODE,T2.LINEAMOUNT,T2.CONFIRMEDDLV,T2.RESERVATION,T2.SALESUNIT,T2.PRICEUNIT,T2.INVENTTRANSID,T2.CUSTGROUP,T2.CUSTACCOUNT,T2.SALESQTY,T2.SALESMARKUP,T2.INVENTDELIVERNOW,T2.SALESTYPE,T2.BLOCKED,T2.COMPLETE,T2.REMAININVENTPHYSICAL,T2.UNDERDELIVERYPCT,T2.OVERDELIVERYPCT,T2.BARCODE,T2.BARCODETYPE,T2.INVENTREFTRANSID,T2.INVENTREFTYPE,T2.INVENTREFID,T2.ITEMBOMID,T2.LINEHEADER,T2.SCRAP,T2.DLVMODE,T2.INVENTTRANSIDRETURN,T2.INVENTDIMID,T2.CUSTOMERLINENUM,T2.REMAININVENTFINANCIAL,T2.DELIVERYNAME,T2.DELIVERYTYPE,T2.CUSTOMERREF,T2.PURCHORDERFORMNUM,T2.SHIPPINGDATEREQUESTED,T2.SHIPPINGDATECONFIRMED,T2.ADDRESSREFRECID,T2.ADDRESSREFTABLEID,T2.LINEDELIVERYTYPE,T2.SHIPCARRIERID,T2.SHIPCARRIERACCOUNT,T2.SHIPCARRIERDLVTYPE,T2.SHIPCARRIERACCOUNTCODE,T2.SALESCATEGORY,T2.LEDGERDIMENSION,T2.RETURNALLOWRESERVATION,T2.MATCHINGAGREEMENTLINE,T2.SYSTEMENTRYSOURCE,T2.SYSTEMENTRYCHANGEPOLICY,T2.MANUALENTRYCHANGEPOLICY,T2.DELIVERYPOSTALADDRESS,T2.SHIPCARRIERPOSTALADDRESS,T2.SHIPCARRIERNAME,T2.DEFAULTDIMENSION,T2.SOURCEDOCUMENTLINE,T2.STOCKEDPRODUCT,T2.REFRETURNINVOICETRANS\_W,T2.POSTINGPROFILE\_RU,T2.CREDITNOTEINTERNALREF\_PL,T2.WMS\_TOLERANCESDAYS,T2.WMS\_PICKLEVEL,T2.WMS\_DIVERGENCEPERCENT,T2.COUNTRYREGIONNAME\_RU,T2.CREDITNOTEREASONCODE,T2.INVOICEGTDID\_RU,T2.PRICEAGREEMENTDATE\_RU,T2.KDV\_PICKINGAREAID,T2.SAV\_SAPORDERLINENUMBER,T2.SVX\_WMSPACKID,T2.SVX\_INVENTVENDBATCH,T2.SVX\_MARKING,T2.SVX\_SAPITEMID,T2.ZINVENTOWNERSTATUSID,T2.ZVENDPALLETID,T2.ZVENDBATCHFORREPLACE,T2.ZPALLETCOEFID,T2.ZINVENTOWNERSTATUSRECEIVED,T2.ZOSGCHANGE,T2.COUNTRYOFORIGIN,T2.INVENTGTDID,T2.ZLINEAMOUNT,T2.ZSALESPRICE,T2.ZTAXAMOUNT,T2.ZTAXVALUE,T2.MODIFIEDDATETIME,T2.CREATEDDATETIME,T2.RECVERSION,T2.PARTITION,T2.RECID FROM SALESPARMLINE T1 LEFT OUTER JOIN SALESLINE T2 ON (((T2.PARTITION=@P1) AND (T2.DATAAREAID=@P2)) AND (T1.INVENTTRANSID=T2.INVENTTRANSID)) WHERE (((T1.PARTITION=@P3) AND (T1.DATAAREAID=@P4)) AND (T1.PARMID=@P5))

EXEC sp\_create\_plan\_guide @name = N'[AX\_SalesParmLineParm]', @stmt = N'SELECT T1.DELIVERYNAME,T1.DELIVERNOW,T1.REMAINBEFORE,T1.REMAINAFTER,T1.INVENTNOW,T1.REMAINBEFOREINVENT,T1.REMAINAFTERINVENT,T1.LINENUM,T1.SALESLINERECID,T1.ITEMID,T1.COMPLETE,T1.LINEAMOUNT,T1.CUSTACCOUNT,T1.INVOICEACCOUNT,T1.PARMID,T1.CHANGEDMANUALLY,T1.CLOSED,T1.INVENTDIMID,T1.INVENTTRANSID,T1.WMSORDER,T1.SCRAP,T1.ORIGSALESID,T1.SHIPCARRIERID,T1.TABLEREFID,T1.SHIPCARRIERACCOUNT,T1.DLVMODE,T1.SALESCATEGORY,T1.REMAINBEFOREINVENTPHYSICAL,T1.DELIVERYPOSTALADDRESS,T1.SHIPCARRIERPOSTALADDRESS,T1.PREVIOUSDELIVERNOW,T1.PREVIOUSINVENTNOW,T1.POSTINGPROFILE\_RU,T1.INVENTPROFILETYPE\_RU,T1.WMS\_SORTCODE,T1.INVENTOWNERID\_RU,T1.KDV\_RESERVPHYSICAL,T1.ZPARMLINEPRIORITY,T1.RECVERSION,T1.PARTITION,T1.RECID,T2.SALESID,T2.LINENUM,T2.ITEMID,T2.SALESSTATUS,T2.NAME,T2.EXTERNALITEMID,T2.QTYORDERED,T2.SALESDELIVERNOW,T2.REMAINSALESPHYSICAL,T2.REMAINSALESFINANCIAL,T2.COSTPRICE,T2.SALESPRICE,T2.CURRENCYCODE,T2.LINEAMOUNT,T2.CONFIRMEDDLV,T2.RESERVATION,T2.SALESUNIT,T2.PRICEUNIT,T2.INVENTTRANSID,T2.CUSTGROUP,T2.CUSTACCOUNT,T2.SALESQTY,T2.SALESMARKUP,T2.INVENTDELIVERNOW,T2.SALESTYPE,T2.BLOCKED,T2.COMPLETE,T2.REMAININVENTPHYSICAL,T2.UNDERDELIVERYPCT,T2.OVERDELIVERYPCT,T2.BARCODE,T2.BARCODETYPE,T2.INVENTREFTRANSID,T2.INVENTREFTYPE,T2.INVENTREFID,T2.ITEMBOMID,T2.LINEHEADER,T2.SCRAP,T2.DLVMODE,T2.INVENTTRANSIDRETURN,T2.INVENTDIMID,T2.CUSTOMERLINENUM,T2.REMAININVENTFINANCIAL,T2.DELIVERYNAME,T2.DELIVERYTYPE,T2.CUSTOMERREF,T2.PURCHORDERFORMNUM,T2.SHIPPINGDATEREQUESTED,T2.SHIPPINGDATECONFIRMED,T2.ADDRESSREFRECID,T2.ADDRESSREFTABLEID,T2.LINEDELIVERYTYPE,T2.SHIPCARRIERID,T2.SHIPCARRIERACCOUNT,T2.SHIPCARRIERDLVTYPE,T2.SHIPCARRIERACCOUNTCODE,T2.SALESCATEGORY,T2.LEDGERDIMENSION,T2.RETURNALLOWRESERVATION,T2.MATCHINGAGREEMENTLINE,T2.SYSTEMENTRYSOURCE,T2.SYSTEMENTRYCHANGEPOLICY,T2.MANUALENTRYCHANGEPOLICY,T2.DELIVERYPOSTALADDRESS,T2.SHIPCARRIERPOSTALADDRESS,T2.SHIPCARRIERNAME,T2.DEFAULTDIMENSION,T2.SOURCEDOCUMENTLINE,T2.STOCKEDPRODUCT,T2.REFRETURNINVOICETRANS\_W,T2.POSTINGPROFILE\_RU,T2.CREDITNOTEINTERNALREF\_PL,T2.WMS\_TOLERANCESDAYS,T2.WMS\_PICKLEVEL,T2.WMS\_DIVERGENCEPERCENT,T2.COUNTRYREGIONNAME\_RU,T2.CREDITNOTEREASONCODE,T2.INVOICEGTDID\_RU,T2.PRICEAGREEMENTDATE\_RU,T2.KDV\_PICKINGAREAID,T2.SAV\_SAPORDERLINENUMBER,T2.SVX\_WMSPACKID,T2.SVX\_INVENTVENDBATCH,T2.SVX\_MARKING,T2.SVX\_SAPITEMID,T2.ZINVENTOWNERSTATUSID,T2.ZVENDPALLETID,T2.ZVENDBATCHFORREPLACE,T2.ZPALLETCOEFID,T2.ZINVENTOWNERSTATUSRECEIVED,T2.ZOSGCHANGE,T2.COUNTRYOFORIGIN,T2.INVENTGTDID,T2.ZLINEAMOUNT,T2.ZSALESPRICE,T2.ZTAXAMOUNT,T2.ZTAXVALUE,T2.MODIFIEDDATETIME,T2.CREATEDDATETIME,T2.RECVERSION,T2.PARTITION,T2.RECID FROM SALESPARMLINE T1 LEFT OUTER JOIN SALESLINE T2 ON (((T2.PARTITION=@P1) AND (T2.DATAAREAID=@P2)) AND (T1.INVENTTRANSID=T2.INVENTTRANSID)) WHERE (((T1.PARTITION=@P3) AND (T1.DATAAREAID=@P4)) AND (T1.PARMID=@P5))',

@type = N'SQL',

@module\_or\_batch = null,

@params = N'@P1 bigint,@P2 nvarchar(5),@P3 bigint,@P4 nvarchar(5),@P5 nvarchar(41)',

@hints = N'OPTION (OPTIMIZE FOR UNKNOWN)'