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# CICS Performance Analyzer for z/OS

*What's New in CICS PA plug-in V3.2.1?*



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## CICS PA plug-in 3.2.1 Highlights





New capabilities in the CICS PA plug-in

- Customisable sheet view
  
- Improved navigation to key reports and alerts for
  - CICS transactions
  - CICS system
  
- Suspend time reporting
  
- Improved messages for connection errors
  
- Available for download June 1 2012
- Requires CICS Explorer V1.1.1







# Customisable sheet view



## Data Filters

-  Can filter data by any column in the table
  -  Can include multiple columns criteria
-  Column name content assist provides help with complex names of performance metrics
-  Decorators provide status of filter syntax

## Custom layout

-  Sample layouts provided
-  Can create own layouts to include data filter
  -  User can choose to run the filter command or modify before submission
-  Column selections and layout can be saved within users workspace

## Server side sort

-  Source DB2 data is sorted rather than client result set
-  User no longer has to download complete result set



# Improved navigation to key reports and alerts

- ✎ Rationalisation of menu options for Performance Summary data
  - ✎ Applid
  - ✎ Transaction
  - ✎ Date/Time intervals
  
- ✎ Only report selections valid for the current context are provided
  - ✎ User can quickly run reports for appropriate transactions and data/time intervals
  
- ✎ When reports are run from the sheet view, user can select the next or previous record using the arrow keys
  - ✎ The report gets automatically updated for the selected record
  - ✎ Works in conjunction with Performance Detail view (pie charts)
  
- ✎ Existing statistics alerts provide details of health of CICS system



# Suspend time reporting

- ✎ Wait (suspend) time metrics have always been available in the PA plug-in Performance Summary data
- ✎ This enhancement provides charts and visualisation for these complex metrics
- ✎ Helps to quickly identify transactions with long suspend times and understand key components of the wait time



## Improved messages for connection errors

- ✎ When customers have exported CICS PA HDB data into DB2 tables for use with the CICS PA plug-in
  - ✎ Performance Summary Data
  - ✎ Statistics data
  - ✎ Statistics Alerts
  
- ✎ Next step is to build the Manifest (lookup) table
  
- ✎ Once these steps are completed and the required connection details are provided in the CICS Explorer
  - ✎ The error messages for DB2 access to these table have not been easily available during connection from the PA plug-in
  
- ✎ Many of the DB2 access error messages will now be exposed so that customers can quickly identify reasons for not seeing any data in the plug-in





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# CICS PA plug-in V3.2.1

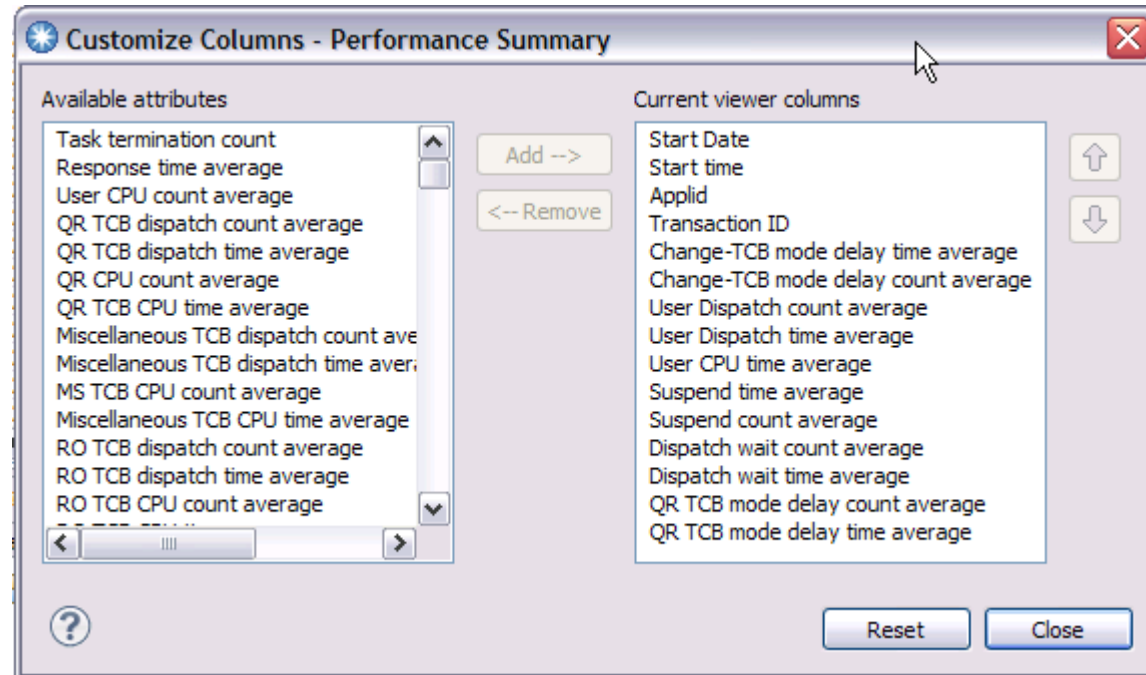
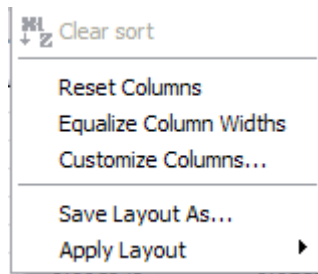
## *Screenshots*



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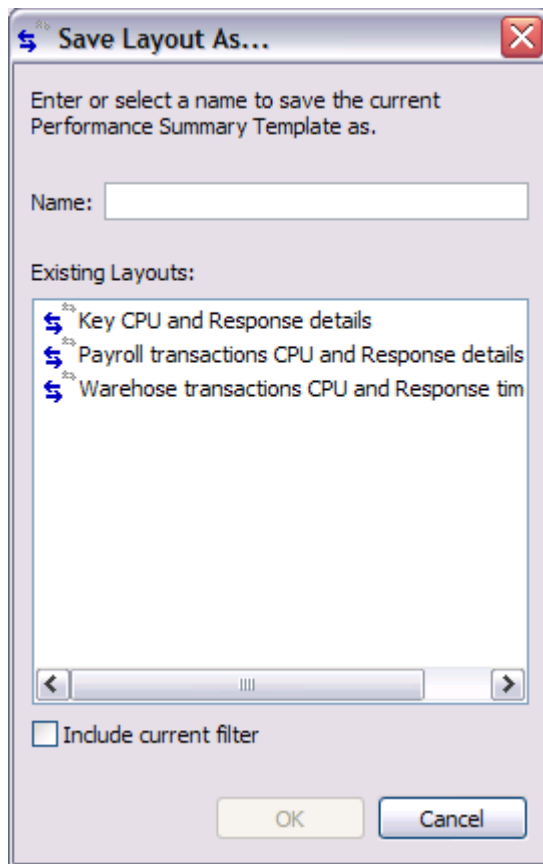


# Customisation options on Sheet view - columns

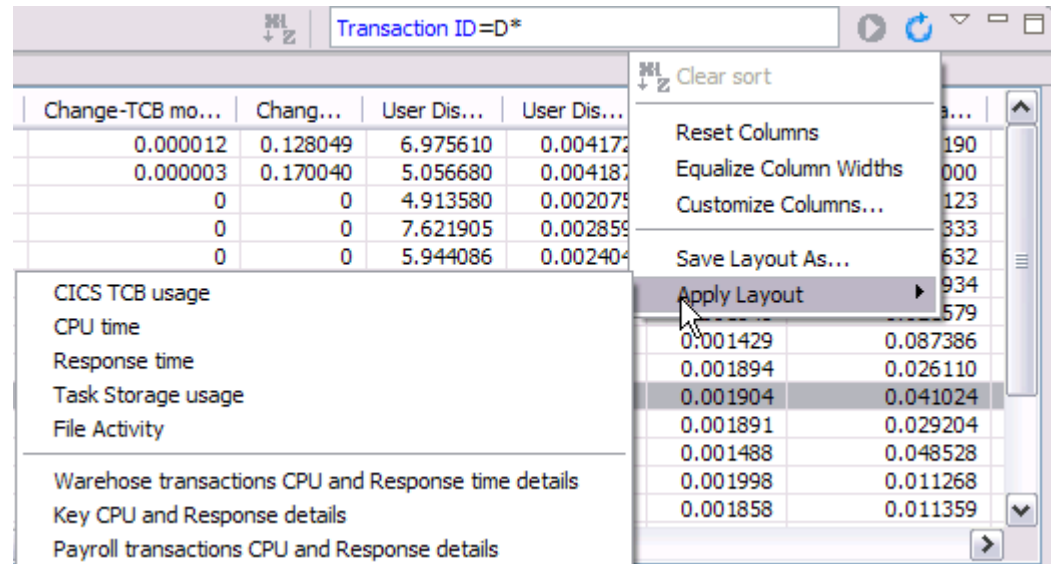


# Customisation options on Sheet view - layouts

## Save Layout



## Apply saved or supplied layout



## Customisation options on Sheet view – data filters

Data filters with content assist – CTRL + SPACE to invoke list of columns

The screenshot shows the 'Performance Summary' window with 19 rows of data. A dropdown menu is open over the table, listing available columns for filtering. The filter criteria in the top bar are 'Transaction ID=D\*', 'User CPU time average>0.003,'.

Start Date	Start time	Applid	Transact...	Change-TCB mo...	Chang...	Start Date	Start time	Applid	Transact...	Change-TCB mo...	Chang...	User Dispatch count average	User Dispatch time average	User CPU time average	Suspend count average	Suspend time average	Dispatch wait count average	Dispatch wait time average	
2010-12-10	12.20.00	IYDZEJ02	DE1	0.000012	0.128046														
2010-12-10	12.20.00	IYDZEJ02	DE20	0.000003	0.170046														
2010-12-10	12.20.00	IYDZEJ02	DE21	0															
2010-12-10	12.25.00	IYDZEJ02	DE1	0															
2010-12-10	12.25.00	IYDZEJ02	DE20	0															
2010-12-10	12.25.00	IYDZEJ02	DE21	0															
2010-12-10	12.25.00	IYDZEJ02	DE22	0															
2010-12-10	12.30.00	IYDZEJ02	DE1	0															
2010-12-10	12.30.00	IYDZEJ02	DE20	0															
2010-12-10	12.30.00	IYDZEJ02	DE21	0	0	6.990050	0.002951	0.001904	0.041024										
2010-12-10	12.30.00	IYDZEJ02	DE22	0	0	6.768041	0.002523	0.001891	0.029204										
2010-12-10	13.45.00	IYDZEJ02	DE1	0.000008	0.046103	7.387486	0.003033	0.001488	0.048528										
2010-12-10	13.45.00	IYDZEJ02	DE20	0.000030	0.080614	5.602687	0.003722	0.001998	0.011268										
2010-12-10	13.45.00	IYDZEJ02	DE21	0	0	5.391586	0.002280	0.001858	0.011359										

# Improved navigation to key reports and alerts

The screenshot displays the IBM CICS Explorer BETA interface. The main window shows a 'Performance Summary' table with 19 rows. A context menu is open over the row for 'Applid: IYDZEJ02, Transaction ID = DE21', showing options like 'Show View' and 'Detail breakdown'. Below the table, the 'Alerts' section is expanded to show a detailed view for 'Start Date=2010-12-10, Start time=12.20.00, Applid=IYDZEJ02, Transaction ID=DE21'. This view includes a 'Transaction response time (average)' bar chart showing components like Average Suspend time, Average Dispatch wait time, Average User Dispatch time, and Average User CPU wait time. Below the chart are 'Performance averages at a glance' with six circular gauges for CICS Response time, Suspend time detail, CPU time, CICS TCB usage, Task Storage usage, and File Request activity. A summary line at the bottom states: '81 transaction(s): 0 TCB mode switches (average). 0.007198 seconds average response time per transaction.'

Start Date	Start time	Applid	Transact...	Change-TCB mo...	Chang...	User Dis...	User Dis...	User CP...	Suspend time a...
2010-12-10	12.20.00	IYDZEJ02	DE1	0.000012	0.128049	6.975610	0.004172	0.001687	0.028190
2010-12-10	12.20.00	IYDZEJ02	DE20	0.000003	0.170040	5.056680	0.004187	0.002053	0.005000
2010-12-10	12.20.00	IYDZEJ02	DE21	0	0	4.913580	0.002075	0.001813	0.005123
2010-12-10	12.25.00	IYDZEJ02	DE1	0	0	7.621905	0.002859	0.001372	0.067333
2010-12-10	12.25.00	IYDZEJ02	DE2	0	0	5.944086	0.002404	0.001845	0.023632
2010-12-10	12.25.00	IYDZEJ02	DE21	0	0	5.967146	0.002484	0.001856	0.023934



# Improved navigation to key reports and alerts

The screenshot displays the IBM CICS Explorer BETA interface. The main window shows a 'Performance Summary' table with columns for Start Date, Start time, Applid, Transact..., Change-TCB mo..., Chang..., User Dis..., User Dis..., User CP..., and Suspend time a... The table contains five rows of data for transactions on 2010-12-10.

Below the table, an 'Alerts' section is visible, showing a specific alert for 'Start Date=2010-12-10, Start time=12.20.00, Applid=IYDZEJ02, Transaction ID=DE21'. A detailed view of this alert is shown below, including a bar chart for 'Transaction response time (average)' and a summary of 'Averages at a glance' with five pie charts: Suspend time detail, CPU time, CICS TCB usage, Task Storage usage, and File Request activity.

A navigation menu is open over the 'Performance Summary' tree, listing options: Performance history, CICS Response time, CPU time, Task Storage usage, and File Request activity.

The Windows taskbar at the bottom shows the system clock as 14:00 on Thursday, 19/04/2012, and a battery level of 100%.

# Improved navigation to key reports and alerts

The screenshot displays the IBM CICS Explorer BETA interface. The main window shows a 'Performance Summary' for a specific transaction (DE21) on 2010-12-10. A horizontal bar chart breaks down the 'Average Response time' into components: Average Suspend time, Average Dispatch wait time, Average User Dispatch time, and Average User CPU wait time. Below this, a 'Performance averages at a glance' section features six circular gauges for CICS Response time, Suspend time detail, CPU time, CICS TCB usage, Task Storage usage, and File Request activity. At the bottom, an 'Alerts' table lists several critical alerts related to maximum active transactions and enqueue wait times.

Alert description	Start Date	Start time	Applid	MVS ID	Resource ...	Resource ...	Actual
Maximum active transactions in class reached	2011-10-25	13.30.14	PT83CICS	VIPA	Tclass Name	CSGTCL16	2980
Maximum active transactions in class reached	2011-10-25	13.30.14	PT83CICS	VIPA	Tclass Name	DFHTCL01	114
Maximum active transactions in class reached	2011-10-25	14.30.11	PT83CICS	VIPA	Tclass Name	CSGTCL16	1323
Enqueues waited in ENQ pool - local	2011-10-25	13.30.33	PR87CICS	VIPA	ENQ Pool ID	EXECSTRN	188
Enqueues waited in ENQ pool - local	2011-10-25	13.30.33	PR87CICS	VIPA	ENQ Pool ID	FCFLRECD	60
Enqueues waited in ENQ pool - local	2011-10-25	13.30.33	PR87CICS	VIPA	ENQ Pool ID	FCNSPFCN	85

# Suspend time details

IBM CICS Explorer BETA - C:/cicsexp1110incurr

File Edit Project Search Window Help

Alerts Start Date=2010-12-10, Start time=12.25.00, Applid=IYDZEJ02, Transaction ID=DE21

Start Date=2010-12-10, Start time=12.25.00, Applid=IYDZEJ02, Transaction ID=DE21

Performance averages at a glance

CICS Response time Suspend time detail CPU time CICS TCB usage Task Storage usage File Request activity

Suspend time detail (averages)  
487 transaction(s): 0.023934 average suspend time per transaction.

Suspend time component	Time (avg)	Count (avg)	%Suspend ...	%Relative
Suspend time	0.023934	5	-	-
I/O wait time	0.007912		33%	33%
Transient data I/O wait time	0.001666	1	7%	21%
Journal I/O wait time	0.003085	0	13%	39%
File wait time	0.003162	2	13%	40%
Other wait time	0.008576		36%	36%
First dispatch delay time	0.008533	1	36%	100%
Local enqueue delay time	0.000043	0	-	-
Uncaptured wait time	0.007446		31%	31%

Restrict tree nodes to those applicable to visible chart.  
 Exclude zero or indeterminate values in tree

IZE0100I Connected user STANN....demopkg.ibm.com on port 4462

DemoMVS - CICS PA

12:22 Thursday 19/04/2012