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CICS Tools
Hands-On Workshop

CICS Performance Analyzer V2.1
Results Lab

Assigned Userid: CICSTxx

CICS Performance Analyzer V2.1 – Workshop

Session Objectives

Using CICS PA and IA you identified candidate applications to be made threadsafe. Then using CICS CM, you modified requisite resource definitions. Now lets see what the performance impact of changing the programs associated with the TXD* transactions to threadsafe.

This short workshop will use CICS Performance Analyzer (PA) to show the impact to CICS performance when applications are made threadsafe. It is very similar to exercise #5 from the earlier CICS PA workshop.

It is expected that the user of this document as a nominal amount of experience with TSO/ISPF.

For detailed information regarding CICS Performance Analyzer, please reference the CICS Performance Analyzer User's Guide. This document can be found on the WEB at: http://www.elink.ibmlink.ibm.com/publications/servlet/pbi.wss?CTY=US&FNC=SRX&PBL=SC34-6799

Specifically, review **Chapter 7. Guided Tour: Report Sets reporting.** The exercises in this course are modeled from what is covered in the guided tour.

Exercise – TCB List Report with threadsafe tasks

During this exercise we will reuse the setup that we did in exercise #5 to build the TCB3LST list report.

☐ Select option 2 from the CICS PA Primary Option Menu

☐ Select your WORKSHOP Report Set.

☐ Type an **S** in the line action field next to the List option under Performance Reports and press ENTER to select LIST reports.

☐ Type an S in the line action field next to the List report created during exercise #5 of the original CICS PA workshop.

☐ Press ENTER to select the report

☐ Type an S in the line action field next under Selection Criteria and press ENTER to show the active selection criteria

☐ Type an S in the line action field next to the criteria and press ENTER to expand the view.

☐ Change values in the Report Interval section of the panel to have a **From** time of **10:00:00.00**, and **To** time of **11:00:00.00** as shown below.

CICS PA Workshop

```
   File  Edit  Object Lists  Options  Help
   ─────────────────────────────────────────────────────────────────
                  WORKSHOP - Performance Select Statement Row 1 of 9 More: >

           Active ───────────────── Report Interval ──────────────
     Inc   Start  ───────── From ─────────  ───────── To ─────────
     Exc   Stop   YYYY/MM/DD  HH:MM:SS.TH  YYYY/MM/DD  HH:MM:SS.TH
   _  INC   START  2008/03/28  10:00:00.00  2008/03/28  11:00:00.00


     Inc  Field              ── Value or Range ──    Object
   / Exc  Name +   Type      Value/From   To         List +
   _ INC  TRAN     _____     T*           _____   _____
   _      _____   _____     _____   _____   _____
   _      _____   _____     _____   _____   _____
   _      _____   _____     _____   _____   _____
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   _      _____   _____     _____   _____   _____
   ******************************* Bottom of data ********************************
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☐ Press PF3 4 times to return to the Report Set panel.

☐ Type RUN in the line action field to the left of the LIST report option and press ENTER to bring up the Run Report Set panel.

☐ Activate the 'Edit JCL before submit' option by placing the cursor in the **Edit JCL before submit** action field and entering a **/**, and pressing ENTER.
  • You are now presented with the JCL and command language for the job that you are about to submit.

☐ Type SUBMIT (or SUB) on the command line, and press ENTER to submit the job.

☐ Place the cursor on the top line of the screen and press PF2 to split the screen.

☐ Enter **13.14** on the commands line and press ENTER. This will take you to the SDSF primary option menu.

☐ One the Command line, type **PREFIX CICSTxx***, where CICSTXX is the id assigned to you for this class. and press ENTER.
  • This will limit the scope of the displayed jobs to the ones starting with your TSO id.

☐ Type **H** on the command input line and press ENTER to go to the Held output queue

☐ Type **?** next to your jobname and press ENTER.

☐ Place the cursor in the NP column in the row next to the ddname LIST0001, type S, and press ENTER.

☐ Use PF11 to scroll to the right to display the fields beyond 80 bytes. Use PF10 to scroll back to the left.

☐ Use PF8 to scroll down the report, and PF7 to scroll back up.

☐ Compare the values in DSCHMDLY(Dispatch Delay) and KY8 DISPatch COUNT in this run of the TCB3LST report to the values from the report you created in exercise #5 from the original CICS PA workshop. Also note the changes in CPU usage and response times.

☐ You should be able to see the significant benefit to making this application threadsafe.

☐ To see an even more dramatic comparison of non-threadsafe performance to threadsafe performance, go to the optional Transaction Profiling exercise from the original CICS PA workshop.

The next two pages have copies of the TCB Usage and Delay reports for both the Threadsafe tasks and Non-Threadsafe tasks. You can compare these to the reports you created.

CICS PA Workshop

Non Thread Safe Tasks

```
                                          CICS Performance Analyzer
                                               Performance List
LIST0001 Printed at 12:17:33  5/21/2008     Data from 07:09:38  3/28/2008          APPLID CICSACB6        Page        1
CICS TCB Usage and Delays (V3) - Detail
```

Tran	Userid	TaskNo	Stop Time	User CPU Time	Response Time	TCBAtach	DSTCBHWM	DSCHMDLY Count	DSTCBMWT Count	MAXSTDLY Count	MAXXTDLY Count	KY8 Disp Count	KY9 Disp Count
TXD0	DNET409	78	07:09:38.039	.0024	.9163	0	0	4	0	0	0	0	0
TXDA	DNET409	79	07:09:39.053	.2298	1.0153	1	1	108	0	0	0	52	0
TXDB	DNET409	110	07:09:39.505	.2277	1.4667	1	1	104	0	0	0	52	0
TXDC	DNET409	111	07:09:39.515	.2275	1.4765	1	1	104	0	0	0	52	0
TXDD	DNET409	112	07:09:39.958	.2268	1.9190	1	1	104	0	0	0	53	0
TXDE	DNET409	113	07:09:39.968	.2266	1.9290	1	1	104	0	0	0	53	0
TXDA	DNET409	114	07:09:40.414	.2266	2.3748	1	1	104	0	0	0	53	0
TXDB	DNET409	115	07:09:40.433	.2265	2.3939	1	1	104	0	0	0	53	0
TXDC	DNET409	116	07:09:40.867	.2266	2.8285	1	1	104	0	0	0	53	0
TXDD	DNET409	117	07:09:40.882	.2263	2.8428	1	1	104	0	0	0	53	0
TXDE	DNET409	118	07:09:41.328	.2265	3.2889	1	1	104	0	0	0	53	0
TXDA	DNET409	119	07:09:41.342	.2265	3.3033	1	1	104	0	0	0	53	0
TXDB	DNET409	120	07:09:41.782	.2265	3.7432	1	1	104	0	0	0	53	0
TXDC	DNET409	121	07:09:41.801	.2264	3.7618	1	1	104	0	0	0	53	0
TXDD	DNET409	122	07:09:42.245	.2266	4.2066	1	1	104	0	0	0	53	0
TXDE	DNET409	123	07:09:42.265	.2265	4.2257	1	1	104	0	0	0	53	0
TXDA	DNET409	124	07:09:42.696	.2267	4.6574	1	1	104	0	0	0	53	0
TXDB	DNET409	125	07:09:42.724	.2266	4.6848	1	1	104	0	0	0	53	0
TXDC	DNET409	126	07:09:43.163	.2265	5.1240	1	1	104	0	0	0	53	0
TXDD	DNET409	127	07:09:43.182	.2265	5.1430	1	1	104	0	0	0	53	0
TXDE	DNET409	128	07:09:43.625	.2266	5.5865	1	1	104	0	0	0	53	0
TXDA	DNET409	109	07:09:43.645	.2264	5.6059	1	1	104	0	0	0	53	0
TXDE	DNET409	108	07:09:44.086	.2265	6.0472	1	1	104	0	0	0	53	0
TXDD	DNET409	107	07:09:44.100	.2263	6.0617	1	1	104	0	0	0	53	0
TXDC	DNET409	106	07:09:44.546	.2266	6.5076	1	1	104	0	0	0	53	0
TXDB	DNET409	105	07:09:44.556	.2265	6.5176	1	1	104	0	0	0	53	0
TXDA	DNET409	104	07:09:45.003	.2265	6.9649	1	1	104	0	0	0	53	0
TXDE	DNET409	103	07:09:45.014	.2264	6.9750	1	1	104	0	0	0	53	0
TXDD	DNET409	102	07:09:45.465	.2265	7.4264	1	1	104	0	0	0	53	0
TXDC	DNET409	101	07:09:45.476	.2264	7.4375	1	1	104	0	0	0	53	0
TXDB	DNET409	100	07:09:45.925	.2264	7.8861	1	1	104	0	0	0	53	0
TXDA	DNET409	99	07:09:45.930	.2264	7.8913	1	1	104	0	0	0	53	0
TXDE	DNET409	98	07:09:46.378	.2269	8.3393	1	1	104	0	0	0	53	0
TXDD	DNET409	97	07:09:46.392	.2266	8.3538	1	1	104	0	0	0	53	0
TXDC	DNET409	96	07:09:46.835	.2266	8.7964	1	1	104	0	0	0	53	0
TXDB	DNET409	95	07:09:46.849	.2264	8.8109	1	1	104	0	0	0	53	0
TXDA	DNET409	94	07:09:47.297	.2266	9.2583	1	1	104	0	0	0	53	0
TXDE	DNET409	93	07:09:47.306	.2265	9.2680	1	1	104	0	0	0	53	0
TXDD	DNET409	92	07:09:47.763	.2266	9.7245	1	1	104	0	0	0	53	0
TXDC	DNET409	91	07:09:47.773	.2265	9.7343	1	1	104	0	0	0	53	0
TXDB	DNET409	90	07:09:48.204	.2266	10.1657	1	1	104	0	0	0	53	0
TXDA	DNET409	89	07:09:48.241	.2265	10.2031	1	1	104	0	0	0	53	0
TXDE	DNET409	88	07:09:48.650	.2266	10.6119	1	1	104	0	0	0	53	0
TXDD	DNET409	87	07:09:48.705	.2264	10.6671	1	1	104	0	0	0	53	0
TXDC	DNET409	86	07:09:49.108	.2266	11.0696	1	1	104	0	0	0	53	0
TXDB	DNET409	85	07:09:49.150	.2265	11.1118	1	1	104	0	0	0	53	0
TXDA	DNET409	84	07:09:49.572	.2266	11.5340	1	1	104	0	0	0	53	0
TXDE	DNET409	83	07:09:49.604	.2267	11.5659	1	1	104	0	0	0	53	0
TXDD	DNET409	82	07:09:49.614	.2269	11.5757	1	1	104	0	0	0	53	0
TXDC	DNET409	81	07:09:49.628	.2267	11.5899	1	1	104	0	0	0	53	0
TXDB	DNET409	80	07:09:49.827	.2269	11.7887	1	1	104	0	0	0	53	0

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CICS PA Workshop

Thread Safe Tasks

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                                        CICS Performance Analyzer
                                            Performance List
                                        _____

LIST0001 Printed at 11:38:16  5/21/2008     Data from 10:12:20  3/28/2008          APPLID CICSACB6      Page      1
CICS TCB Usage and Delays (V3) - Detail
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Tran	Userid	TaskNo	Stop Time	User CPU Time	Response Time	TCBAtach	DSTCBHWM Count	DSCHMDLY Count	DSTCBMWT Count	MAXSTDLY Count	MAXXTDLY Count	KY8 Disp Count	KY9 Disp Count
TXD0	DNET409	143	10:12:20.127	.0025	.0073	0	0	2	0	0	0	0	0
TXDA	DNET409	144	10:12:20.399	.2285	.2734	0	1	18	0	0	0	7	0
TXDD	DNET409	192	10:12:20.405	.2264	.2786	1	1	14	0	0	0	7	0
TXDE	DNET409	193	10:12:20.414	.2262	.2871	1	1	14	0	0	0	7	0
TXDC	DNET409	191	10:12:20.637	.2262	.5097	1	1	14	0	0	0	8	0
TXDB	DNET409	190	10:12:20.643	.2260	.5165	1	1	14	0	0	0	8	0
TXDA	DNET409	189	10:12:20.651	.2260	.5240	1	1	14	0	0	0	8	0
TXDE	DNET409	188	10:12:20.872	.2263	.7453	1	1	14	0	0	0	8	0
TXDD	DNET409	187	10:12:20.880	.2261	.7530	1	1	14	0	0	0	8	0
TXDC	DNET409	186	10:12:20.889	.2262	.7625	1	1	14	0	0	0	8	0
TXDB	DNET409	185	10:12:21.122	.2262	.9949	1	1	14	0	0	0	8	0
TXDE	DNET409	183	10:12:21.127	.2260	1.0004	1	1	14	0	0	0	8	0
TXDA	DNET409	184	10:12:21.133	.2260	1.0066	1	1	14	0	0	0	8	0
TXDD	DNET409	182	10:12:21.359	.2260	1.2319	1	1	14	0	0	0	8	0
TXDB	DNET409	145	10:12:21.364	.2259	1.2385	1	1	14	0	0	0	8	0
TXDC	DNET409	146	10:12:21.372	.2259	1.2462	1	1	14	0	0	0	8	0
TXDD	DNET409	147	10:12:21.592	.2260	1.4664	1	1	14	0	0	0	8	0
TXDE	DNET409	148	10:12:21.601	.2259	1.4753	1	1	14	0	0	0	8	0
TXDA	DNET409	149	10:12:21.612	.2259	1.4859	1	1	14	0	0	0	8	0
TXDB	DNET409	150	10:12:21.830	.2260	1.7038	1	1	14	0	0	0	8	0
TXDC	DNET409	151	10:12:21.837	.2259	1.7111	1	1	14	0	0	0	8	0
TXDD	DNET409	152	10:12:21.843	.2259	1.7169	1	1	14	0	0	0	8	0
TXDE	DNET409	153	10:12:22.066	.2263	1.9402	1	1	14	0	0	0	8	0
TXDA	DNET409	154	10:12:22.072	.2260	1.9463	1	1	14	0	0	0	8	0
TXDB	DNET409	155	10:12:22.078	.2260	1.9521	1	1	14	0	0	0	8	0
TXDC	DNET409	156	10:12:22.303	.2260	2.1769	1	1	14	0	0	0	8	0
TXDD	DNET409	157	10:12:22.309	.2259	2.1831	1	1	14	0	0	0	8	0
TXDE	DNET409	158	10:12:22.317	.2259	2.1904	1	1	14	0	0	0	8	0
TXDA	DNET409	159	10:12:22.538	.2261	2.4115	1	1	14	0	0	0	8	0
TXDB	DNET409	160	10:12:22.546	.2260	2.4194	1	1	14	0	0	0	8	0
TXDC	DNET409	161	10:12:22.553	.2260	2.4271	1	1	14	0	0	0	8	0
TXDD	DNET409	162	10:12:22.775	.2262	2.6485	1	1	14	0	0	0	8	0
TXDE	DNET409	163	10:12:22.781	.2259	2.6546	1	1	14	0	0	0	8	0
TXDA	DNET409	164	10:12:22.788	.2259	2.6620	1	1	14	0	0	0	8	0
TXDB	DNET409	165	10:12:23.012	.2261	2.8854	1	1	14	0	0	0	8	0
TXDC	DNET409	166	10:12:23.018	.2259	2.8920	1	1	14	0	0	0	8	0
TXDD	DNET409	167	10:12:23.027	.2258	2.9011	1	1	14	0	0	0	8	0
TXDE	DNET409	168	10:12:23.248	.2261	3.1213	1	1	14	0	0	0	8	0
TXDA	DNET409	169	10:12:23.254	.2259	3.1272	1	1	14	0	0	0	8	0
TXDB	DNET409	170	10:12:23.261	.2259	3.1344	1	1	14	0	0	0	8	0
TXDC	DNET409	171	10:12:23.484	.2262	3.3573	1	1	14	0	0	0	8	0
TXDD	DNET409	172	10:12:23.489	.2261	3.3631	1	1	14	0	0	0	8	0
TXDE	DNET409	173	10:12:23.497	.2260	3.3710	1	1	14	0	0	0	8	0
TXDA	DNET409	174	10:12:23.720	.2261	3.5932	1	1	14	0	0	0	8	0
TXDB	DNET409	175	10:12:23.728	.2259	3.6015	1	1	14	0	0	0	8	0
TXDC	DNET409	176	10:12:23.734	.2260	3.6075	1	1	14	0	0	0	8	0
TXDD	DNET409	177	10:12:23.956	.2260	3.8293	1	1	14	0	0	0	8	0
TXDE	DNET409	178	10:12:23.963	.2260	3.8363	1	1	14	0	0	0	8	0
TXDA	DNET409	179	10:12:23.969	.2261	3.8426	1	1	14	0	0	0	8	0
TXDB	DNET409	180	10:12:24.192	.2264	4.0654	1	1	14	0	0	0	8	0
TXDC	DNET409	181	10:12:24.198	.2262	4.0712	1	1	14	0	0	0	8	0