

# МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ РФ ФГБОУ ВО

# Воронежский государственный университет инженерных технологий

Специальность 09.03.02 «Информационные системы и технологии»

Кафедра Информационных технологий моделирования и управления

# Отчет по практической работе

по дисциплине «Имитационное моделирование систем»

(наименование учебной дисциплины)

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Работа защище	на				
• •		(Дата)		(Оценка)	

#### Моделирование простейших СМО с очередями

#### ВЫПОЛНЕНИЕ РАБОТЫ

- Модель1: изменить задание из практической работы №2 добавив очереди к устройствам К1-К5. С равномерным распределением между устройствами. И без удаления на 5 устройстве. Обработать 500 транзактов и в течении 8 часов.
  - 1) 500 транзактов:

mem2 storage 2

mem4 storage 3

mem5 storage 4

generate 5,3 transfer .5,met1,met2

met1 queue razoom1 seize ust1 depart razoom1 advance 20,4 release ust1 transfer ,dalee

met2 queue razoom2 enter mem2 depart razoom2 advance 35,8 leave mem2

dalee transfer .5,met3,met4 met3 queue razoom3 seize ust3 depart razoom3 advance 35,8 release ust3 transfer ,nagate

met4 queue razoom4 enter mem4 depart razoom4 advance 15,5 leave mem4

nagate gate snf mem5,poteri queue razoom5 enter mem5 depart razoom5

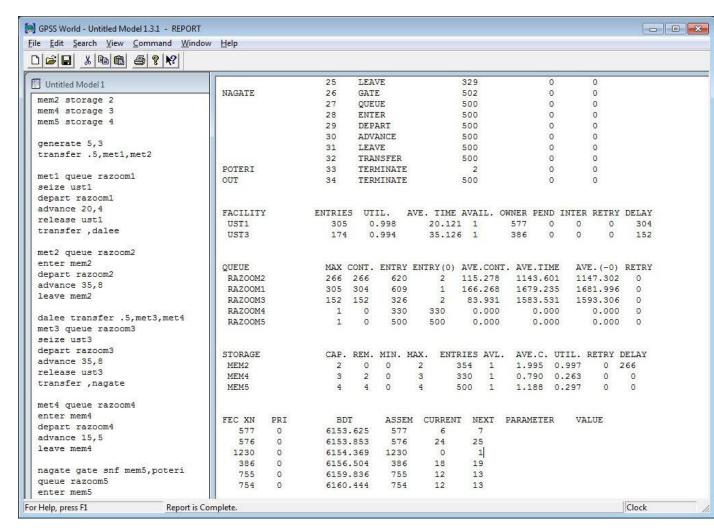
## advance 15,6 leave mem5 transfer ,out

# poteri terminate

# out terminate 1 start 500

# Скрины работы программы:

Untitled Model 1											
mem2 storage				GPSS T	World	Simulatio	n Ren	ort - Untitl	ed Model	1.3.1	
mem4 storage											
mem5 storage	9										
generate 5,3				1	Monda	y, March 2	0, 20	23 12:29:57			
transfer .5,				crine er	ure		II) ====	E DIOCUE -	2011 1010	pmo	03000
7774281KUARDISTORAR SUDARIS				START TI	ME 00			E BLOCKS F 8 34	ACILITIES 2		RAGES
met1 queue ra	azooml			0.00	00	6.1	.50.61	0 31	2		1
seize ustl											
depart razoon				NAME				VALUE			
advance 20,4 release ust1			D	ALEE				14.000			
transfer ,da:	lee			EM2				0000.000			
				EM4				0001.000			
met2 queue ra	szoom2			EM5 ET1			1	3.000			
enter mem2				ET2				9.000			
depart razoon				ET3				15.000			
advance 35,8 leave mem2			M	ET4				21.000			
reave memz				AGATE				26.000			
dalee transfe	er .5,met3,ma	et4	0.5	UT				34.000			
met3 queue ra		0.000		OTERI AZOOM1			4	33.000			
seize ust3				AZOOM1 AZOOM2				0004.000			
depart razoon				AZOOM3			10.7	0006.000			
advance 35,8				AZOOM4				0008.000			
release ust3 transfer ,nac				AZOOM5				0009.000			
oranorer , Hal	9400			ST1				0005.000			
met4 queue ra	azoom4		U	ST3			1	0007.000			
enter mem4											
depart razoon			LABEL		LOC	BLOCK TYP	PΕ	ENTRY COUNT	CURRENT	COUNT	RETRY
advance 15,5						GENERATE		1229		0	0
leave mem4					2	TRANSFER		1229		0	0
nagate gate :	anf mem5 note	ari	MET1			QUEUE		609	30		0
queue razoom!					4	SEIZE		305		0	0
enter mem5					5	DEPART		305 305		0	0
		1				ADVANCE		303		*	- 0
	5	DEPART		305		0	0				
	6	ADVANCE		305		1	0				
	7	RELEASE		304		0	0				
	8	TRANSFER		304		0	0				
MET2		QUEUE		620		266	0				
	10	ENTER		354		0	0				
		DEPART		354		0	0				
		ADVANCE		354		2	0				
DALEE		LEAVE TRANSFER		352 656		0	0				
MET3		QUEUE		326		152	0				
	16	SEIZE		174		0	0				
	17	DEPART		174		0	ol				
		ADVANCE		174		1	0				
		RELEASE		173		0	0				
	20	TRANSFER		173		0	0				
MET4	21	QUEUE		330		0	0				
		ENTER		330		0	0				
		DEPART		330		0	0				
	24	ADVANCE		330		1	0				
				329		0	0				
JACATE	25	LEAVE		502		0	0				
NAGATE	25 26	GATE					0				
NAGATE	25 26 27	GATE QUEUE		500			0				
NAGATE	25 26 27 28	GATE QUEUE ENTER		500 500		0	0				
NAGATE	25 26 27 28 29	GATE QUEUE ENTER DEPART		500			0				
NAGATE	25 26 27 28 29 30	GATE QUEUE ENTER		500 500 500		0	0				
NAGATE	25 26 27 28 29 30 31	GATE QUEUE ENTER DEPART ADVANCE		500 500 500 500		0 0	0				
	25 26 27 28 29 30 31 32 33	GATE QUEUE ENTER DEPART ADVANCE LEAVE TRANSFER TERMINAT		500 500 500 500 500		0 0 0	0				
POTERI	25 26 27 28 29 30 31 32	GATE QUEUE ENTER DEPART ADVANCE LEAVE TRANSFER TERMINAT	E	500 500 500 500 500 500		0 0 0	0 0 0				
NAGATE POTERI DUT	25 26 27 28 29 30 31 32 33	GATE QUEUE ENTER DEPART ADVANCE LEAVE TRANSFER TERMINAT	E	500 500 500 500 500 500 500		0 0 0 0 0	0 0 0				
POTERI DUT	25 26 27 28 29 30 31 32 33 34	GATE QUEUE ENTER DEPART ADVANCE LEAVE TRANSFER TERMINAT	E E	500 500 500 500 500 500 500 2 500		0 0 0 0 0 0	0 0 0 0				
POTERI DUT FACILITY	25 26 27 28 29 30 31 32 33 34	GATE QUEUE ENTER DEPART ADVANCE LEAVE TRANSFER TERMINAT TERMINAT	E E AVE. TIME	500 500 500 500 500 500 2 500 AVAIL. C		0 0 0 0 0 0 0	0 0 0 0 0 0				
POTERI DUT FACILITY UST1	25 26 27 28 29 30 31 32 33 34 ENTRIES 305	GATE QUEUE ENTER DEPART ADVANCE LEAVE TRANSFER TERMINAT TERMINAT UTIL. 0.998	E E AVE. TIME 20.121	500 500 500 500 500 500 2 500 AVAIL. C	577	0 0 0 0 0 0 0	0 0 0 0 0 0	0 304			
POTERI DUT FACILITY	25 26 27 28 29 30 31 32 33 34 ENTRIES 305	GATE QUEUE ENTER DEPART ADVANCE LEAVE TRANSFER TERMINAT TERMINAT	E E AVE. TIME 20.121	500 500 500 500 500 500 2 500 AVAIL. C	577	0 0 0 0 0 0 0	0 0 0 0 0 0	0 304			
POTERI DUT FACILITY UST1	25 26 27 28 29 30 31 32 33 34 ENTRIES 305	GATE QUEUE ENTER DEPART ADVANCE LEAVE TRANSFER TERMINAT TERMINAT UTIL. 0.998	E E AVE. TIME 20.121	500 500 500 500 500 500 2 500 AVAIL. C	577	0 0 0 0 0 0 0	0 0 0 0 0 0	0 304			
POTERI DUT FACILITY UST1 UST3	25 26 27 28 29 30 31 32 33 34 ENTRIES 305 174	GATE QUEUE ENTER DEPART ADVANCE LEAVE TRANSFER TERMINAT TERMINAT UTIL. 0.998 0.994	E E AVE. TIME 20.121 35.126	500 500 500 500 500 500 2 500 AVAIL. 0	577 386	0 0 0 0 0 0 0 0	0 0 0 0 0 0	0 304 0 152			
POTERI DUT FACILITY UST1	25 26 27 28 29 30 31 32 33 34 ENTRIES 305 174	GATE QUEUE ENTER DEPART ADVANCE LEAVE TRANSFER TERMINAT TERMINAT  UTIL. 0.998 0.994  ONT. ENTR	E E AVE. TIME 20.121	500 500 500 500 500 500 2 500 AVAIL. (	577 386	0 0 0 0 0 0 0 0 PEND INT 0	0 0 0 0 0 0 0 er re 0 0	0 304 0 152 -0) RETRY			



#### 2) в течении 8 часов:

mem2 storage 2 mem4 storage 3 mem5 storage 4

generate 5,3 transfer .5,met1,met2

met1 queue razoom1 seize ust1 depart razoom1 advance 20,4 release ust1 transfer ,dalee

met2 queue razoom2 enter mem2 depart razoom2 advance 35,8 leave mem2

dalee transfer .5,met3,met4 met3 queue razoom3

seize ust3 depart razoom3 advance 35,8 release ust3 transfer ,nagate

met4 queue razoom4 enter mem4 depart razoom4 advance 15,5 leave mem4

nagate gate snf mem5,poteri queue razoom5 enter mem5 depart razoom5 advance 15,6 leave mem5 transfer ,out

### poteri terminate

out terminate generate 480 terminate 1 start 1 Скрины работы программы:

Untitled Model 1		START T	IME	END	TIME	BLOCK	S F	ACILITIES	STO	RAGES
cranater , uaree		0.	000	480	.000	36		2		3
met2 queue razoom2										
enter mem2		NAME				VALUE				
depart razoom2		DALEE				14.000	0.			
advance 35,8		MEM2			100	00.000	2			
leave mem2		MEM4			100	01.000				
		MEM5			100	02.000	100			
dalee transfer .5, met3, met4		MET1				3.000	0			
met3 queue razoom3		MET2				9.000				
seize ust3		MET3				15.000				
depart razoom3		MET4				21.000				
advance 35,8		NAGATE				26.000				
release ust3		OUT				34.000	1			
transfer , nagate		POTERI				33.000				
Contain Polit Section		RAZOOM1			100	04.000				
met4 queue razoom4		RAZOOM2			100	03.000				
enter mem4		RAZOOM3			100	06.000				
depart razoom4		RAZOOM4			100	08.000				
advance 15,5		RAZOOM5			100	09.000				
leave mem4		UST1			100	05.000	0			
to the contraction of the contra		UST3			100	07.000	18			
nagate gate snf mem5,poteri										
queue razoom5										
enter mem5	LABEL		LOC	BLOCK TYPE	E	NTRY C	COUNT	CURRENT	COUNT	RETRY
depart razoom5			1	GENERATE		96	5		0	0
advance 15,6			2	TRANSFER		96			0	0
leave mem5	MET1		3	QUEUE		55		3	2	0
transfer ,out			4	SEIZE		23			0	0
paraceter considered and analysis of			5	DEPART		23			0	0
poteri terminate			6	ADVANCE		23	0		1	0
\$ 100 miles			7	RELEASE		22			0	0
out terminate			8	TRANSFER		22			0	0
generate 480	MET2		9	QUEUE		41		1	.3	0
terminate 1			10	ENTER		28			0	0
start 1			11	DEPART		28			0	0
MSW-9207 07 1			12	ADVANCE		28			2	0

Untitled Model 1							
		12	ADVANCE	28	2	0	J
J Unitied Model I		13	LEAVE	26	ō	0	
, , , , , , , , , , , , , , , , , , , ,	DALEE	14	TRANSFER	48	0	0	
met2 queue razoom2	MET3	15	QUEUE	21	8	0	
enter mem2		16	SEIZE	13	0	0	
depart razoom2		17	DEPART	13	0	0	
advance 35,8		18	ADVANCE	13	1	0	
leave mem2		19	RELEASE	12	0	0	
		20	TRANSFER	12	0	0	
dalee transfer .5,met3,met4	MET4	21	OUEUE	27	0	0	
net3 gueue razoom3		22	ENTER	27	0	0	
seize ust3		23	DEPART	27	0	0	
depart razoom3		24	ADVANCE	27	1	0	
advance 35,8		25	LEAVE	26	0	0	
release ust3	NAGATE	26	GATE	38	0	0	
	NAGAIL		(H) 4 (H) (H) (H)	3555	0	0	
ransfer , nagate		27	QUEUE	38	0.20	1	
		28	ENTER	38	0	0	
met4 queue razoom4		29	DEPART	38	0	0	
enter mem4		30	ADVANCE	38	2	0	
iepart razoom4		31	LEAVE	36	0	0	
idvance 15,5		32	TRANSFER	36	0	0	
Leave mem4	POTERI	33	TERMINATE	0	0	0	
	OUT	34	TERMINATE	36	0	0	
nagate gate snf mem5,poteri		35	GENERATE	1	0	0	
queue razoom5		36	TERMINATE	1	0	0	
enter mem5							
depart razoom5							
advance 15,6	FACILITY	ENTRIES	UTIL. AV	E. TIME AVAIL. OW	NER PEND II	NTER RETRY	DELAY
Leave mem5	UST1	23	0.971	20.273 1	44 0	0 0	32
ransfer ,out	UST3	13	0.919	33.940 1	27 0	0 0	8
Januarez , out	0010	10	0.313	33.310 1	2/ 0	0	9
poteri terminate							
	QUEUE	MAX C	ONT. ENTRY E	NTRY(0) AVE.CONT.	AVE.TIME	AVE. (-0)	RETRY
out terminate	RAZOOM2	14	13 41	2 8.039	94.115	98.941	0
generate 480	RAZOOM1	32	32 55	1 15.600	136.148	138.669	0
erminate 1	RAZOOM3	10	8 21	2 3.718	84.979	93.924	0
start 1	RAZOOM4	1	0 27	27 0.000	0.000	0.000	0
	RAZOOM5	1	0 38	38 0.000	0.000	0.000	0
Ů.				190	-		-74 - 7 <b>4</b>
Untitled Model 1		31	LEAVE	36	0	0	
ransier ,uaiee	000000000000000000000000000000000000000	32	TRANSFER	36	0	0	
CONTRACTOR OF THE PROPERTY OF	POTERI	33	TERMINATE	0	0	0	
	OUT	34					
net2 queue razoom2		9.2	TERMINATE	36	0	0	
		35	GENERATE	36 1	0	0	
enter mem2		7,77	GENERATE	1	17.0		
enter mem2 depart razoom2		35		200	ō	0	
nter mem2 lepart razoom2 dvance 35,8		35	GENERATE	1	ō	0	
enter mem2 depart razoom2 dvance 35,8	FACTUATY	35 36	GENERATE TERMINATE	1	0	0	DELTA
enter mem2 depart razoom2 dvance 35,8 deave mem2	FACILITY	35 36 ENTRIES	GENERATE TERMINATE UTIL. AV	1 1 E. TIME AVAIL. O	0 0 NNER PEND I	0 0 NTER RETRY	
enter mem2 depart razoom2 dvance 35,8 deave mem2 dalee transfer .5,met3,met4	UST1	35 36 ENTRIES 23	GENERATE TERMINATE UTIL. AV 0.971	1 1 E. TIME AVAIL. OF 20.273 1	0 0 NNER PEND I 44 0	0 0 NTER RETRY 0 0	32
nter mem2 depart razoom2 dvance 35,8 eave mem2 dalee transfer .5,met3,met4 met3 queue razoom3		35 36 ENTRIES	GENERATE TERMINATE UTIL. AV 0.971	1 1 E. TIME AVAIL. O	0 0 NNER PEND I 44 0	0 0 NTER RETRY 0 0	
enter mem2 depart razoom2 dvance 35,8 eave mem2 dalee transfer .5,met3,met4 det3 queue razoom3 deize ust3	UST1	35 36 ENTRIES 23	GENERATE TERMINATE UTIL. AV 0.971	1 1 E. TIME AVAIL. OF 20.273 1	0 0 NNER PEND I 44 0	0 0 NTER RETRY 0 0	32
nter mem2 epart razoom2 dvance 35,8 eave mem2 alee transfer .5,met3,met4 et3 queue razoom3 eize ust3 epart razoom3	UST1	35 36 ENTRIES 23 13	GENERATE TERMINATE UTIL. AV 0.971 0.919	1 1 7E. TIME AVAIL. OF 20.273 1 33.940 1	0 0 NNER PEND I 44 0 27 0	O O NIER RETRY O O O O	32 8
nter mem2 epart razoom2 dvance 35,8 eave mem2 alee transfer .5,met3,met4 et3 queue razoom3 eize ust3 epart razoom3	UST1	35 36 ENTRIES 23 13	GENERATE TERMINATE UTIL. AV 0.971 0.919	1 1 E. TIME AVAIL. OF 20.273 1	0 0 NNER PEND I 44 0 27 0	O O NIER RETRY O O O O	32 8
nter mem2 epart razoom2 dvance 35,8 eave mem2 alee transfer .5,met3,met4 et3 queue razoom3 eize ust3 epart razoom3 dvance 35,8	UST1 UST3	35 36 ENTRIES 23 13	GENERATE TERMINATE UTIL. AV 0.971 0.919	1 1 7E. TIME AVAIL. OF 20.273 1 33.940 1	0 0 0 NNER PEND I 44 0 27 0	0 0 NTER RETRY 0 0 0 0	32 8 RETRY
nter mem2 epart razoom2 dvance 35,8 eave mem2 alee transfer .5,met3,met4 et3 queue razoom3 eize ust3 epart razoom3 dvance 35,8 elease ust3	UST1 UST3	35 36 ENTRIES 23 13 MAX C	GENERATE TERMINATE  UTIL. AV 0.971 0.919  ONT. ENTRY E	1 1 20.273 1 33.940 1 20.273 2 33.940 1	0 0 0 NNER PEND I 44 0 27 0 AVE.TIME 94.115	0 0 NTER RETRY 0 0 0 0 AVE.(-0) 98.941	32 8 RETRY 0
nter mem2 epart razoom2 dvance 35,8 eave mem2 alee transfer .5,met3,met4 et3 queue razoom3 eize ust3 epart razoom3 dvance 35,8 elease ust3	UST1 UST3 QUEUE RAZOOM2 RAZOOM1	35 36 ENTRIES 23 13 MAX C	GENERATE TERMINATE  UTIL. AV 0.971 0.919  ONT. ENTRY E 13 41 32 55	1 1 20.273 1 33.940 1 ENTRY(0) AVE.CONT 2 8.039 1 15.600	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 NTER RETRY 0 0 0 0 AVE.(-0) 98.941 138.669	32 8 RETRY 0
enter mem2 lepart razoom2 dvance 35,8 eave mem2 lalee transfer .5,met3,met4 let3 queue razoom3 leize ust3 lepart razoom3 dvance 35,8 elease ust3 ransfer ,nagate	UST1 UST3 QUEUE RAZOOM2 RAZOOM1 RAZOOM3	35 36 ENTRIES 23 13 MAX C 14 32	GENERATE TERMINATE  UTIL. AV 0.971 0.919  ONT. ENTRY E 13 41 32 55 8 21	1 1 20.273 1 33.940 1 NTRY(0) AVE.CONT 2 8.039 1 15.600 2 3.718	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 NTER RETRY 0 0 0 0 AVE.(-0) 98.941 138.669 93.924	32 8 RETRY 0 0
enter mem2 depart razoom2 divance 35,8 eave mem2 dalee transfer .5,met3,met4 det3 queue razoom3 deize ust3 depart razoom3 divance 35,8 delease ust3 ransfer ,nagate det4 queue razoom4	UST1 UST3 QUEUE RAZOOM2 RAZOOM1 RAZOOM3 RAZOOM4	35 36 ENTRIES 23 13 MAX C 14 32 10 1	GENERATE TERMINATE  UTIL. AV 0.971 0.919  ONT. ENTRY E 13 41 32 55 8 21 0 27	1 1 20.273 1 33.940 1 ENTRY(0) AVE.CONT 2 8.039 1 15.600 2 3.718 27 0.000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 NTER RETRY 0 0 0 0 AVE.(-0) 98.941 138.669 93.924 0.000	32 8 RETRY 0 0 0
enter mem2 depart razoom2 depart razoom2 devance 35,8 deave mem2 dalee transfer .5,met3,met4 det3 queue razoom3 deize ust3 depart razoom3 devance 35,8 delease ust3 dransfer ,nagate det4 queue razoom4 denter mem4	UST1 UST3 QUEUE RAZOOM2 RAZOOM1 RAZOOM3	35 36 ENTRIES 23 13 MAX C 14 32 10 1	GENERATE TERMINATE  UTIL. AV 0.971 0.919  ONT. ENTRY E 13 41 32 55 8 21	1 1 20.273 1 33.940 1 NTRY(0) AVE.CONT 2 8.039 1 15.600 2 3.718	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 NTER RETRY 0 0 0 0 AVE.(-0) 98.941 138.669 93.924 0.000	32 8 RETRY 0 0 0
enter mem2 lepart razoom2 levart razoom2 levart razoom2 levare mem2 lealee transfer .5,met3,met4 let3 queue razoom3 leize ust3 lepart razoom3 levare 35,8 leelease ust3 levare razoom4 let4 queue razoom4 lete4 mem4 lepart razoom4	UST1 UST3 QUEUE RAZOOM2 RAZOOM1 RAZOOM3 RAZOOM4	35 36 ENTRIES 23 13 MAX C 14 32 10 1	GENERATE TERMINATE  UTIL. AV 0.971 0.919  ONT. ENTRY E 13 41 32 55 8 21 0 27	1 1 20.273 1 33.940 1 ENTRY(0) AVE.CONT 2 8.039 1 15.600 2 3.718 27 0.000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 NTER RETRY 0 0 0 0 AVE.(-0) 98.941 138.669 93.924 0.000	32 8 RETRY 0 0 0
enter mem2 depart razoom2 devance 35,8 deave mem2 dalee transfer .5,met3,met4 met3 queue razoom3 depart razoom3 devance 35,8 delease ust3 dransfer ,nagate met4 queue razoom4 depart razoom4	UST1 UST3 QUEUE RAZOOM2 RAZOOM1 RAZOOM3 RAZOOM4 RAZOOM5	35 36 ENTRIES 23 13 MAX C 14 32 10	ONT. ENTRY E 13 41 32 55 8 21 0 27 0 38	1 1 20.273 1 33.940 1 20.273 1 33.940 1 20.000 2 8.039 1 15.600 2 3.718 27 0.000 38 0.000	0 0 0 NNER PEND I 44 0 27 0 . AVE.TIME 94.115 136.148 84.979 0.000 0.000	0 0 NTER RETRY 0 0 0 0 AVE.(-0) 98.941 138.669 93.924 0.000 0.000	32 8 RETRY 0 0 0 0
enter mem2 depart razoom2 devance 35,8 .eave mem2 dalee transfer .5,met3,met4 met3 queue razoom3 deize ust3 depart razoom3 devance 35,8 melease ust3 ransfer ,nagate met4 queue razoom4 meter mem4 depart razoom4 devance 15,5	UST1 UST3 QUEUE RAZOOM2 RAZOOM1 RAZOOM3 RAZOOM4	35 36 ENTRIES 23 13 MAX C 14 32 10	ONT. ENTRY E 13 41 32 55 8 21 0 27 0 38	1 1 20.273 1 33.940 1 20.273 1 33.940 1 20.000 1 15.600 2 3.718 27 0.000 38 0.000 2 X. ENTRIES AVL.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 NTER RETRY 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	32 8 RETRY 0 0 0 0
enter mem2 depart razoom2 advance 35,8 deave mem2 dialee transfer .5,met3,met4 met3 queue razoom3 depart razoom3 depart razoom3 devance 35,8 release ust3 dransfer ,nagate met4 queue razoom4 enter mem4 depart razoom4 advance 15,5	UST1 UST3 QUEUE RAZOOM2 RAZOOM1 RAZOOM3 RAZOOM4 RAZOOM5	35 36 ENTRIES 23 13 MAX C 14 32 10	GENERATE TERMINATE  UTIL. AV 0.971 0.919  ONT. ENTRY E 13 41 32 55 8 21 0 27 0 38  REM. MIN. MA	1 1 20.273 1 33.940 1 20.273 1 33.940 1 20.000 1 15.600 2 3.718 27 0.000 38 0.000 2 X. ENTRIES AVL.	0 0 0 NNER PEND I 44 0 27 0 . AVE.TIME 94.115 136.148 84.979 0.000 0.000	0 0 0 NTER RETRY 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	32 8 RETRY 0 0 0 0
met2 queue razoom2 enter mem2 depart razoom2 advance 35,8 leave mem2 dalee transfer .5,met3,met4 met3 queue razoom3 seize ust3 depart razoom3 advance 35,8 release ust3 transfer ,nagate met4 queue razoom4 enter mem4 depart razoom4 advance 15,5 leave mem4 magate gate snf mem5,poteri	UST1 UST3 QUEUE RAZOOM2 RAZOOM1 RAZOOM3 RAZOOM4 RAZOOM5	35 36 ENTRIES 23 13 MAX C 14 32 10 1	GENERATE TERMINATE  UTIL. AV 0.971 0.919  ONT. ENTRY E 13 41 32 55 8 21 0 27 0 38  REM. MIN. MA 0 0	1 1 20.273 1 33.940 1 20.273 1 33.940 1 20.000 2 8.039 1 15.600 2 3.718 27 0.000 38 0.000 X. ENTRIES AVL.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 NTER RETRY 0 0 0 0 0 8.941 138.669 93.924 0.000 0.000	32 8 RETRY 0 0 0 0

enter mem5 depart razoom5

advance 15,6 leave mem5

transfer ,out

out terminate

generate 480

terminate 1

start 1

poteri terminate

FEC XN

PRI

BDT

480.164

482.812

484.212

487.653

492.170

493.435

501.561

504.658

960.000

ASSEM CURRENT NEXT PARAMETER VALUE

2. Модель 2: количество генераций транзактов равно 3, ограничить очереди 5 местами с помощью TEST, организовать подсчет покинувших систему с каждой очереди. Моделировать в течении 12 часов.

1)

mem2 storage 2

mem4 storage 3

mem5 storage 4

generate 5,3

transfer, gorox

generate 5,3 transfer ,gorox

generate 5,3

transfer, gorox

gorox transfer .5,met1,met2

met1 test l q\$razoom1,5,poteri queue razoom1 seize ust1 depart razoom1 advance 20,4 release ust1 transfer ,dalee

met2 test 1 q\$razoom2,5,poteri queue razoom2 enter mem2 depart razoom2 advance 35,8 leave mem2

dalee transfer .5,met3,met4 met3 test 1 q\$razoom3,5,poteri queue razoom3 seize ust3 depart razoom3 advance 35,8 release ust3 transfer ,nagate

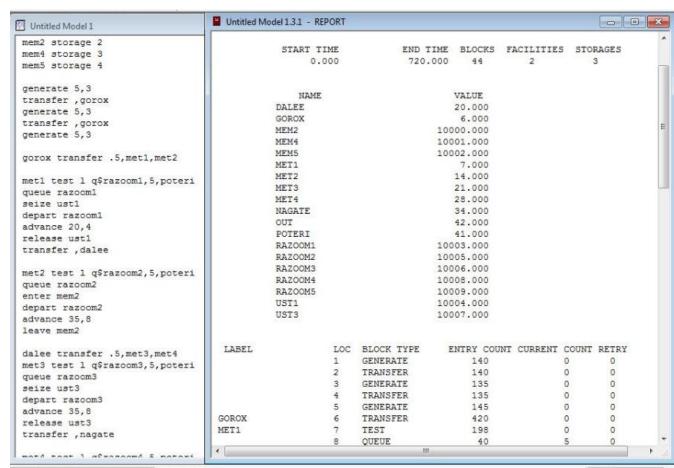
met4 test 1 q\$razoom4,5,poteri queue razoom4 enter mem4 depart razoom4 advance 15,5 leave mem4

nagate gate snf mem5,poteri queue razoom5 enter mem5 depart razoom5 advance 15,6 leave mem5 transfer ,out

poteri terminate

out terminate generate 720 terminate 1 start 1

#### Скрины работы программы:



Untitled Model 1	Untitled Model 1.	112 1121 0111				
mem2 storage 2	MET1	7	TEST	198	0	0
mem4 storage 3		8	QUEUE	40	5	0
mem5 storage 4		9	SEIZE	35	0	0
		10	DEPART	35	0	0
generate 5,3		11	ADVANCE	35	1	0
transfer ,gorox		12	RELEASE	34	0	0
generate 5,3	POWERONAL PROPERTY.	13	TRANSFER	34	0	0
transfer ,gorox	MET2	14	TEST	222	0	0
generate 5.3		15	QUEUE	47	5	0
generate 5,5		16	ENTER	42	0	0
erox transfer .5,met1,met2 et1 test l q\$razoom1,5,poteri eue razoom1		17	DEPART	42	0	0
gorox cransier .s, mecr, mecz		18	ADVANCE	42	2	0
		19	LEAVE	40	0	0
	DALEE	20	TRANSFER	74	0	0
	MET3	21	TEST	40	0	0
seize ust1		22	OUEUE	23	4	0
depart razoom1		23	SEIZE	19	0	0
advance 20,4		24	DEPART	19	0	0
release ust1		25	ADVANCE	19	1	0
transfer ,dalee		26	RELEASE	18	0	0
		27	TRANSFER	18	0	0
met2 test 1 q\$razoom2,5,poteri	MET4	28	TEST	34	0	0
queue razoom2		29	OUEUE	34	0	0
enter mem2		30	ENTER	34	0	0
depart razoom2		31	DEPART	34	0	0
advance 35,8		32	ADVANCE	34	1	0
leave mem2		33	LEAVE	33	0	0
	NAGATE	34	GATE	51	0	0
dalee transfer .5,met3,met4	NAGAIL	35	QUEUE	51	0	0
met3 test 1 q\$razoom3,5,poteri		36	ENTER	51	0	0
queue razoom3		37	DEPART	51	0	0
seize ust3				5.2	-	100
depart razoom3		38	ADVANCE	51	2	0
advance 35,8		39	LEAVE	49	-	0
release ust3		40	TRANSFER	49	0	0
transfer , nagate	POTERI	41	TERMINATE	350	0	0
	OUT	42	TERMINATE	49	0	0

Untitled Model 1	Untitled N	10del 1.3.1	- KEPUKT									193		
mem2 storage 2	OUT		42		MINATE	2		49			0		0	
mem4 storage 3			43		ERATE			1			0		0	
mem5 storage 4			44	TER	MINATE	2		1			0		0	
or construction and a second														
generate 5,3	FACILITY	6	ENTRIES	ПТ	TT.	AVE.	TIME	AVATI	. 09	NER PE	ND TI	ITER	RETRY	DF
transfer ,gorox	UST1		35	500 1777	.991		20.381	200000000000000000000000000000000000000		354	0	0	0	
generate 5,3	UST3		19	1.50	.963		36.488			234	0	0	0	
transfer ,gorox	0313				.303		30.100			231	~	0		
generate 5,3														
gorox transfer .5,met1,met2	QUEUE		MAX C	ONT.			TRY (0)			. AVE.T		AVE	. (-0)	RE
games to fine as fine as	RAZOOM1		5	5	40		1	4.7	777300		901	3/60	7.078	
met1 test 1 q\$razoom1,5,poteri	RAZOOM2		5	5	47		2	4.7	07/700	72.			5.818	
queue razoom1	RAZOOM3		5	4		8.6	1	4.1	54	130.	025		5.936	
seize ust1	RAZOOM4		1	0	34	ł	34	0.0	00	0.	000		0.000	
depart razoom1	RAZOOM5		1	0	51	Ĺ	51	0.0	00	0.	000		0.000	
advance 20,4	1-242-1000-1004-1004-100													
release ust1														
transfer ,dalee	STORAGE		CAP.	REM.	MIN.	MAX.	ENTE	RIES A	VL.	AVE.C	. UTI	L. R	ETRY	DE
cransier , daiee	MEM2		2	0	0	2		42	1	1.980	0.9	990	0	
	MEM4		3	2	0	3		34	1	0.696	0.2	232	0	(
met2 test 1 q\$razoom2,5,poteri	MEM5		4	2	0	4		51	1	1.054	0.2	263	0	(
queue razoom2	-721000000000													
enter mem2														
depart razoom2	FEC XN	PRI	BDT	95	ASSE	CM C	URRENT	NEX	т	PARAMET	ER	VAL	UE	
advance 35,8	354	0	720.		354		11	12	26					
leave mem2	424	0	723.	151-15	424		0	3						
	423	0	723.		423		0	1						
dalee transfer .5,met3,met4	422	0	724.		422		0	5						
met3 test 1 q\$razoom3,5,poteri	338	0	726.		338		38	39						
queue razoom3	345	0	729.	000000000000000000000000000000000000000	345		32	33						
seize ust3	343	0	731.		100000		38	39						
depart razoom3	343	0	731.				18	19						
advance 35,8	234	0	735.		234		25	26						
release ust3	370	0			370		18	19						
transfer ,nagate	100000	-	756.	100000000000000000000000000000000000000				43						
	425	0	1440.	000	425	111	0	43						