Презентация по лабораторной работе №14

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Постановка задачи

Построить несколько распределения заявок в очереди.

моделей обработки

заказов и

гистограмму

Модель оформления заказов клиентов одним оператором

```
;operator
GENERATE 15,4
QUEUE operator_q
SEIZE operator
DEPART operator_q
ADVANCE 10,2
RELEASE operator
TERMINATE 0
;timer
GENERATE 480
TERMINATE 1
START 1
```

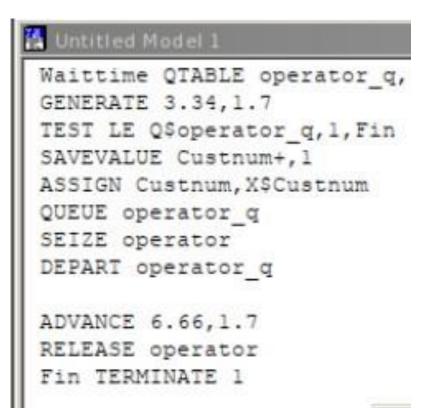
		TIME 0.000			TIME 0.000							
	NAI	ΊE			1000	/ALUE						
	OPERATO	OR			1000	01.00	0					
	OPERATO	OR_Q			1000	00.00	0					
LABEL		LOC	BLOC	K TYPE	El	NTRY	COUNT	CURRE	NT C	OUNT	RETRY	
		1	GENE	RATE		3	2		0		0	
				E		3	2		0		0	
		3	SEIZ	E		3	2		0		0	
		4	DEPA	RT		3	2		0		0	
		5	ADVA	NCE		3	2		1		0	
		6	RELE	ASE		3	1		0		0	
		7	TERM	INATE		3	1		0		0	
		8	GENE	RATE			1		0		0	
		9	TERM	INATE			1		0		0	
FACILITY		ENTRIES	UTI	L. A	VE. TIN	ME AV	AIL.	OWNER	PEND	INTE	R RETRY	DELAY
OPERATOR		32										
QUEUE		MAX C	ONT.	ENTRY	ENTRY () AV	E.CON	T. AVE	.TIM	E A	VE. (-0)	RETRY
QUEUE OPERATOR	_Q	1	0	32	31		0.001		0.02	1	0.671	0
FEC XN	PRI	BDT		ASSEM	CURRE	ENT	NEXT	PARAM	ETER	V	ALUE	
33 34	0	489. 496. 960.	786	33	5		6					
34	0	496.	081	34	0		1					
35	0	960	000	3 5	0		8					

Построение скорректированной модели

		TIME									
		0.000		48	0.000	9		1		0	
	NA	LME.			7	ALUE					
	OPERAT	OR			1000	1.000					
		OR O			1000						
		100									
LABEL		LOC							COUNT	RETRY	
			GENE	RATE		152			0	0	
		2	QUEU	E		152		8	12	0	
		3	SEIZ	E		70			0	0	
			DEPA	RT		70			0	0	
		5	ADVA	NCE		70			1	0	
		6	RELE	ASE		69			0	0	
						69			0		
		8	GENE	RATE		1			0	0	
		9	TERM	INATE		1			0	0	
FACILITY	·	ENTRIES	UTI	L. A	VE. TIN	E AVAIL	. OWN	ER PEN	D INT	ER RETRY	DELA
OPERATO	OR	70	0.	991	6.7	96 1		71	0	0 0	8
OUEUE		MAX C	ONT.	ENTRY	ENTRY () AVE.C	ONT.	AVE.TI	ME	AVE. (-0)	RETR
QUEUE OPERATO	OR_Q	82	82	152	1	39.0	96	123.4	61	124.279	0
FEC XN	PRI	BDT		ASSEM	CURRE	NT NEX	T PA	RAMETE	IR .	VALUE	
71	0	480.	405	71	5	6					
154	0	483.	330	154	0	1					
	0				0						

;operator GENERATE 3.14,1.7 QUEUE operator_q SEIZE operator DEPART operator_q ADVANCE 6.66,1.7 RELEASE operator TERMINATE 0 ;timer

GENERATE 480 TERMINATE 1 START 1

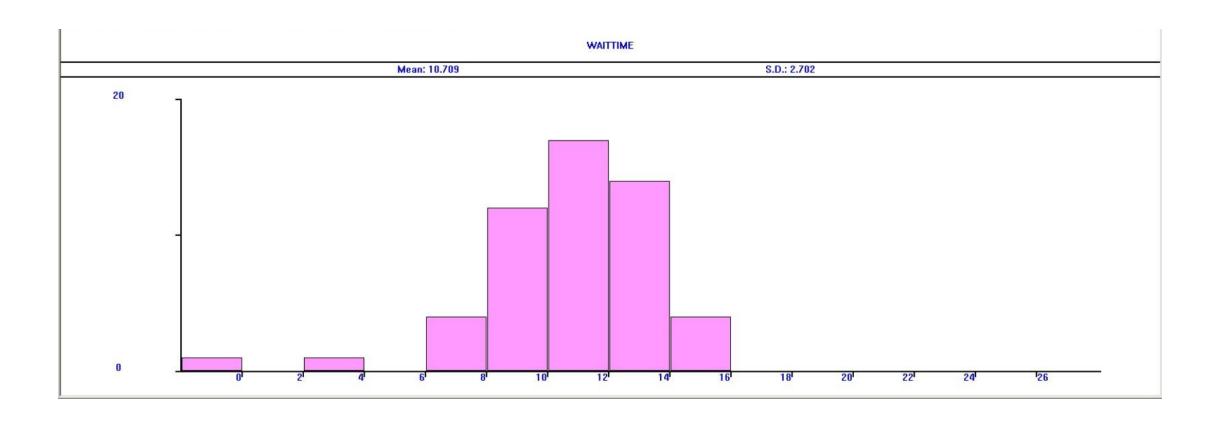


Untitled Model 1.3.1 - REPO	ORT				
GPSS Wo	rld Simulation Re	port - Untitle	d Model 1.3.	1	
10.					
cy	ббота, июня 10, 2	1023 13:26:03			
START TIME	END TI	MF BLOCKS FA	CILITIES ST	ORAGES	
0.000		95 10	1		
82-125-23					
NAME		VALUE			
CUSTNUM		10002.000			
FIN		10.000			
OPERATOR		10003.000			
OPERATOR_Q WAITTIME		10001.000			
WAITIME		10000.000			
LABEL L	OC BLOCK TYPE	ENTRY COUNT	CURRENT COUN	T RETRY	
1	GENERATE	102	0	0	
2	TEST	102	0	0	
3	SAVEVALUE	55	0	0	
4	ASSIGN	55	0	0	
5	QUEUE	55		0	
6	SEIZE DEPART	54	1	0	
		53	0	0	
	ADVANCE	53		0	
	RELEASE TERMINATE	53	0	0	
FIN 10	TERMINALE	100	0	0	
FACILITY ENTR	IES UTIL. AVE.	TIME AVAIL. O	WNER PEND IN	TER RETRY	DELAY
	54 0.987				
					-
	X CONT. ENTRY ENT				
OPERATOR_Q	2 2 55	1 1.652	10.628	10.824	0
		22702		PRESURVE:	ome a
TABLE ME. WAITTIME 10.	AN STD.DEV. 709 2.702	KANGE	RETRY	FREQUENCY	CUM.%
WAITIME 10.	709 2.702	- 0		1	1 00
	0.0	000 - 2	.000	0	1 89
		100 - 4			

	TOK Q		10001.000			
WAITT	IME		10000.000			
LABEL	LOC	BLOCK TYPE	ENTRY COUNT	CURRENT COU	NT RETRY	
		GENERATE	102	0	0	
	2	TEST	102	0	0	
	3	SAVEVALUE	55	0	0	
	4	ASSIGN	55	0	0	
	5	QUEUE	55	1	0	
	6	SEIZE	54	1	0	
	7	DEPART	53	0	0	
	8	ADVANCE	53	0	0	
	9	RELEASE	53	0	0	
FIN	10	TERMINATE	100	0	0	
FACILITY	ENTRIES	UTIL. AVE	. TIME AVAIL.	OWNER PEND I	NTER RETRY	DELAY
OPERATOR	54	0.987	6.470 1	98 0	0 0	1
QUEUE OPERATOR_Q	MAX CO		TRY(0) AVE.CON 1 1.652			
OPERATOR_Q						
		STD DEV	RANGE	DFTDV	FREGUENCY	CIIM &
TABLE	MEAN		RANGE		FREQUENCY	CUM.%
	MEAN	STD.DEV. 2.702		RETRY 0	E0:070111000	
TABLE	MEAN	2.702		0	1	1.89
TABLE	MEAN	2.702	- 000 -	0.000	1	1.89
TABLE	MEAN	2.702	- 000 -	0.000	1 0	1.89 1.89 3.77
TABLE	MEAN	2.702 0. 2. 4.	- 000 - 000 -	0 0.000 2.000 4.000	1 0 1	1.89 1.89 3.77 3.77
TABLE	MEAN	2.702 0. 2. 4. 6.	- 000 - 000 - 000 -	0 0.000 2.000 4.000 6.000	1 0 1 0 4	1.89 1.89 3.77 3.77 11.32
TABLE	MEAN	2.702 0. 2. 4. 6. 8.	- 000 - 000 - 000 - 000 -	0 0.000 2.000 4.000 6.000 8.000	1 0 1 0 4	1.89 1.89 3.77 3.77 11.32 33.96
TABLE	MEAN	2.702 0. 2. 4. 6. 8.	- 000 - 000 - 000 - 1000 - 1	0 0.000 2.000 4.000 6.000 8.000 0.000	1 0 1 0 4	1.89 1.89 3.77 3.77 11.32 33.96 66.04
TABLE	MEAN	2.702 0. 2. 4. 6. 8. 10.	- 000 - 000 - 000 - 1000 - 1000 - 1	0 0.000 2.000 4.000 6.000 8.000 0.000 2.000	1 0 1 0 4 12 17	1.89 1.89 3.77 3.77 11.32 33.96 66.04 92.45
TABLE WAITTIME	MEAN 10.709	2.702 0. 2. 4. 6. 8. 10. 12.		0 0.000 2.000 4.000 6.000 8.000 0.000 2.000 4.000	1 0 1 0 4 12 17 14	1.89 1.89 3.77 3.77 11.32 33.96 66.04 92.45
TABLE	MEAN 10.709	2.702 0. 2. 4. 6. 8. 10. 12. 14.	- 000 - 000 - 000 - 1000 - 1000 - 1	0 0.000 2.000 4.000 6.000 8.000 0.000 2.000 4.000	1 0 1 0 4 12 17 14	1.89 1.89 3.77 3.77 11.32 33.96 66.04 92.45

Построение гистограммы распределения заявок в очереди

Гистограмма



Модель обслуживания двух типов заказов от клиентов

```
QUEUE operator q
SEIZE operator
DEPART operator q
ADVANCE 10,2
RELEASE operator
TERMINATE 0
; order and service package
GENERATE 30,8
QUEUE operator q
SEIZE operator
DEPART operator q
ADVANCE 5,2
ADVANCE 10.2
RELEASE operator
TERMINATE 0
;timer
GENERATE 480
TERMINATE 1
```

		STAR	0.000		ENI 48	0 TIME 80.000	BLOC 17	KS F	ACIL 1	ITIES	STOR#	GES	
		N.	AME TOR TOR_Q				VALUE						
		OPERA	TOR			100	01.00	0					
		OPERA	TOR_Q			100	00.00	00					
LAE	BEL		LOC										
			1	GEN	ERATE UE ZE		3	12		0)	0	
			2	QUE	UE		3	12		4		0	
			3	SEI	ZE		2	8		0	is .	0	
			4	DEP	ART		2	8		0)	0	
			5	ADV	ANCE		2	8		1		0	
			6	REL	ANCE EASE		2	7				0	
			7	TER	MINATE		2	7		0)	0	
			8	GEN	ERATE		1	.5		0)	0	
			9	QUE	UE		1	5		3	1	0	
			10	SEI	ZE		1	2		0		0	
			11	DEP	ART		1	2		0		0	
			12	ADV	ART ANCE		1	2		0		0	
			13	ADV	ANCE		1	.2		0	1	0	
			14	REL	EASE			2		0	1	0	
			15	TER	MINATE		1	2		0		0	
			16	GEN	MINATE ERATE			1		0):	0	
					MINATE			1		0	1	0	
FACI	LITY		ENTRIE	s ut	IL.	AVE. TI	ME AV	AIL.	OWNE	R PEND	INTER	RETRY	DELA
OPE	RATO	R	40	0	.947	11.	365	1	4	2 0	0	0	
QUE	JE	_	MAX 8	CONT.	ENTRY	ENTRY (0) AV	E.CON	II. A	VE.TIM	E AV	E. (-0)	RETR
OPI	ERATO	R_Q	8	7	47	2		3.355	i.	34.26	1	35.784	0
			BD						PAR	AMETER	. V	LUE	
		0	487	.825	42	5	ĝ.	6					
	50	0	493	.164	50	0		1					
	49	0	499 960	.562	49	0		8					
	51	0	960	.000	51	0		16					

Построение скорректированной модели

	MPLEX				7.0						
	ERATOR				0001.0						
	ERATOR_Q			1	.0000.0						
SI	MPLE				8.0	000					
LABEL	LO	BLOC	K TYP	E	ENTRY	COUNT	CURRE	NT CO	UNT R	ETRY	
	1	GENE	RATE			33		0		0	
	2	QUEU	E			33		0		0	
	3	SEIZ	Ε			33		0		0	
	4	DEPA	RT			33		0		0	
	5	ADVA	NCE			33		0		0	
	6	TRAN	SFER			33		0		0	
COMPLEX	7	ADVA	NCE			8		1		0	
SIMPLE	8	RELE	ASE			32		0		0	
	9	TERM	INATE			32		0		0	
	10	GENE	RATE			1		0		0	
	11	TERM	INATE			1		0		0	
FACILITY	ENTRI	ES UTI	L.	AVE.	TIME A	VAIL. (OWNER	PEND	INTER	RETRY	DELA
OPERATOR	3	3 0.	766	1	1.146	1	34	0	0	0	
QUEUE	MAX	CONT.	ENTRY	ENTE	RY(0) A	VE.CON	I. AVE	.TIME	AV	E.(-0)	RETR
OPERATOR Q	1		33		22.7	0.054					

```
QUEUE operator q
SEIZE operator
DEPART operator q
ADVANCE 10,2
TRANSFER 0.3 simple, complex
complex ADVANCE 5,2
simple RELEASE operator
TERMINATE 0
; timer
```

Модель оформления заказов несколькими операторами

		OPERATOR					10000	55.75					
		OPERATOR	Q				10001	.000					
LABE	т.		LOC	BLO	CK TY	DF.	FNT	RY C	OUNT	CURRENT	COUNT	RETRY	
	_										0	0	
				QUE				93			0	0	
				ENT				93			0	0	
				DEP				93			0	0	
			5	ADV	ANCE			93			2	0	
			6	LEA	VE			91			2	0	
			7	TER	MINATE	Ξ		91			0	0	
			8	GEN	ERATE			1			0	0	
			9	TER	MINATE	Ξ		1			0	0	
OUFUE			MAX	CONT.	ENTR	Y ENT	TRY (0)	AVE	CONT	. AVF.T	TMF	AVE.(-0)	RETR
OPER	ATOR											0.000	
STORA	GE		CAP.	REM.	MIN.	MAX	ENTE	RIES	AVL.	AVE.C	. UTIL	. RETRY	DELAY
			4	2	0	4		93	1	1.926	0.48	2 0	0
FEC X	N :	PRI	BD	T	ASSI	EM (URRENT	r n	EXT	PARAMETI	ER	VALUE	
		0							1		scalit /		
9	3	0	482	.805	9:	3	5		6				
0	4	0	400	472	0	4	=		6				

```
operator STORAGE 4
GENERATE 5,2
QUEUE operator q
ENTER operator, 1
DEPART operator q
ADVANCE 10,2
LEAVE operator, 1
TERMINATE O
:timer
```

Построение скорректированной модели

	NAME					VAL						
	OPERATOR				375	.0000.						
	OPERATOR	_Q			1	.0001.	000					
LABEL		LOC	BLO	CK TYP	E	ENTR	Y COU	NT C	URRENT	COUNT	RETRY	
		1	GEN	ERATE			93			0	0	
		2	TES	T			93			0	0	
			QUE	UE			93			0	0	
		4	ENT	ER			93			0	0	
		5	DEP	ART			93			0	0	
		6	ADV	ANCE			93			2	0	
		7	LEA	VE			91			0	0	
		8	TER	MINATE			91			0	0	
		9	GEN	ERATE			1			0	0	
		10	TER	MINATE			1			0	0	
QUEUE		MAX	CONT.	ENTRY	FNTE	Y (0)	AVF.C	ONT.	AVF.T	IME	AVE. (-0)	RETR
OPERATOR											0.000	
STORAGE		CAP.	REM.	MIN.	MAX.	ENTR	IES A	VL.	AVE.C	. UTIL	. RETRY	DELAY
OPERATOR		4	2	0	4		93	1	1.926	0.48	2 0	0
FEC XN	PRI	BD	Т	ASSE	м с	RRENT	NEX	T P	ARAMETI	ER	VALUE	
95	0	480	.457	95		0	1					
93	0	482	805	93		6	7					

```
operator STORAGE 4
GENERATE 5,2
TEST LE QSoperator q, 2
QUEUE operator q
ENTER operator, 1
DEPART operator q
ADVANCE 10,2
LEAVE operator
TERMINATE 0
```

Внесение изменений в модель

	OLLIMION											
	OPERATOR	2_0			10	0001.	000					
LABEL		LOC	BLO	CK TYPE	2	ENTE	Y COUN	I CU	RRENT	COUNT	RETRY	
		1	GEN	ERATE			94		2	7	0	
		2	TES	T			67			0	0	
			QUE	UE			67			3	0	
			ENT	ER			64			0	0	
		5	DEP	ART			64			0	0	
		6	ADV.	ANCE			64			4	0	
		7	LEA	VE			60			0	0	
		8	TER	MINATE			60			0	0	
		9	GEN	ERATE			1			0	0	
		10	TER	MINATE			1			0	0	
QUEUE		MAX	CONT.	ENTRY	ENTR	Y(0)	AVE.CO	NT.	AVE.TI	ME	AVE. (-0)	RETR
OPERATO											20.576	
STORAGE		CAP.	REM.	MIN. 1	MAX.	ENTF	IES AV	L.	AVE.C.	UTIL	. RETRY	DELAY
OPERATO	OR	4	0	0	4		64 1		3.885	0.97	1 0	3
FEC XN	PRI	BD	T	ASSE	M CUE	RRENI	NEXT	PA	RAMETE	R	VALUE	
96	0	480	.736	96		0	1					
62		491	.784	62		6	7					
	-											

```
Untitled Model 1
operator STORAGE 4
GENERATE 5,2
TEST LE QSoperator q, 2
QUEUE operator_q
ENTER operator
DEPART operator_q
```