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CLEAR STORAGE 1 ,008015,022026,030037,044,049,053053N000000N00001026 1
CLEAR STORAGE 2 L068116,105106,110117B101/I9I#071029C029056B026/B001/0991,001/001117I0? 2
BOOTSTRAP ,008015,022029,036040,047054,061068,072/061039 ,0010011040 3
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FORTRAN COMPILER -- RESORT 3 PHASE -- PHASE 49 PAGE 1

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
101			JOB		FORTRAN COMPILER -- RESORT 3 PHASE -- PHASE 49						
102			CTL		6611						
103			*								
104			*		THE SOURCE PROGRAM IS RESORTED BACK TO ITS ORIGINAL ORDER.						
105			*		THE STATEMENT NUMBER TABLE IS FILLED WITH THE CURRENT LOCATION						
106			*		OF EACH STATEMENT.						
107			*								
108			*		ON ENTRY X3 IS AT THE BOTTOM ENTRY IN THE SORT TABLE AND						
109			*		X2 IS ONE ABOVE THE COLON THAT MARKS THE TOP OF THE SORT TABLE.						
110			*								
111			X1	EQU	89				0089		
112			X2	EQU	94				0094		
113			X3	EQU	99				0099		
114			*								
115			*		STUFF IN THE RESIDENT AREA						
116			*								
117			PHASID	EQU	110	PHASE ID, FOR SNAPSHOT DUMPS			0110		
118			SEQTAB	EQU	148	BOTTOM OF SEQUENCE NUMBER TABLE - 2			0148		
119			SNAPSH	EQU	333	CORE DUMP SNAPSHOT			0333		
120			TOPCOR	EQU	688	TOP CORE ADDRESS FROM PARAM CARD			0688		
121			LOADNX	EQU	700	LOAD NEXT OVERLAY			0700		
122			CLEARL	EQU	707	CS AT START OF OVERLAY LOADER			0707		
123			*								
124			*		STUFF FROM THE PREVIOUS PHASE						
125			*								
126			TOPA	EQU	841	TABBOT PLUS 3 X NUMBER OF STATEMENTS			0841		
127			SX1	EQU	844	SX3A IN PREVIOUS PHASE			0844		
128			NEXT	EQU	850	NEXT SORT TABLE ENTRY TO PROCESS			0850		
129			SX3A	EQU	853	SX2 IN PREVIOUS PHASE			0853		
130			SX3	EQU	856				0856		
131			W3	EQU	859				0859		
132			TOPC	EQU	862	TABBOT PLUS 3 X NUMBER OF STATEMENTS PLUS 1			0862		
133			SEQNO	EQU	865	SEQUENCE NUMBER OF STATEMENT BEING PROCESSED			0865		
134			TOPC5	EQU	870	TOPC AS FIVE DIGITS			0870		
135			TIMES6	EQU	875	DOCNT TIMES 6			0875		
136			W5	EQU	880				0880		
137			FLAG	EQU	884				0884		
138			ADR5B	EQU	891				0891		
139			ADR5	EQU	896				0896		
140			CONV35	EQU	969	CONVERT ADDRESS IN ADR5 TO DIGITS IN ADR5B			0969		
141			FINDGM	EQU	1052	FIND NEXT HIGHER GM			1052		
142			TOOBIG	EQU	1092				1092		
143			*								
144			SORTAB	EQU	2499	SORT TABLE			2499		
145			*								
146			ORG		1175				1175		
147			LOADDD	EQU	*&1	LOAD ADDRESS			1175		

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
148	1	175	BEGINN	SW	GM	4		1175	, M68		4
149	1	179		B	* & 8	4		1179	B / 90		4
150	1	183	LOOP	SBR	X3,0-0	7		1183	H 099 000		4
151	1	190		SBR	NEXT	4		1190	H 850		4
152	1	194	MIDDLE	BCE	EMPTY,0&X3,	8		1194	B Z30 0?0		4
153	1	202		SBR	LOOP&6,3&X3	7		1202	H / 89 0?3		4
154	1	209		MN	0&X3	4		1209	D 0?0		4
155	1	213		SAR	* & 7	4		1213	Q S23		5
156	1	217		BWZ	INDIR,0-0,S	8		1217	V Y26 000 S		5
157	1	225		MCW	0&X3,X1	7		1225	M 0?0 089		5
158	1	232	INDIRB	SBR	TOPC,0&X3	7		1232	H 862 0?0		5
159	1	239	INNER	MCW	X1,SX1A	7		1239	M 089 M47		5
160	1	246		MCW	X1,X3	7		1246	M 089 099		6
161	1	253		B	FINDBGM GET ADDRESS & 1 OF GM ABOVE STATEMENT	4		1253	B / 52		6
162	1	257		MCW	X3,ADR5	7		1257	M 099 896		6
163	1	264		B	CONV35	4		1264	B 969		6
164	1	268		MCW	ADR5B,W5 ADDRESS & 1 OF GM ABOVE STATEMENT	7		1268	M 891 880		6
165	1	275		A	K1,W5	7		1275	A M48 880		6
166	1	282		MCW	SX1A,ADR5 ADDRESS OF STATEMENT	7		1282	M M47 896		7
167	1	289		B	CONV35	4		1289	B 969		7
168	1	293		MCW	ADR5B,W5B	7		1293	M 891 M42		7
169	1	300		S	W5B,W5 LENGTH OF STATEMENT	7		1300	S M42 880		7
170	1	307		MCW	X2,ADR5	7		1307	M 094 896		7
171	1	314		B	CONV35	4		1314	B 969		7
172	1	318		MCW	ADR5B,TPC5 TOP OF TABLE & 2	7		1318	M 891 870		8
173	1	325		B	TEST	4		1325	B Y90		8
174	1	329		BL	MOVED1	5		1329	B Z71 T		8
175	1	334	NEWSTM	MCW	SX1A,X1	7		1334	M M47 089		8
176	1	341		BCE	* & 12,F1,1	8		1341	B T60 M43 1		8
177	1	349		A	K1,208	7		1349	A M48 208		8
178	1	356		B	REPORT	4		1356	B V27		9
179			*								
180	1	360		MCW	K0,F1	7		1360	M M49 M43		9
181	1	367		MCW	X3,SX3B&6	7		1367	M 099 V26		9
182	1	374		MCW	3&X1,X3	7		1374	M 013 099		9
183	1	381		MCW	0&X3,X3	7		1381	M 0?0 099		9
184	1	388		SBR	3&X1,4&X3	7		1388	H 013 0?4		9
185	1	395		MA	W3,3&X1	7		1395	# 859 013		10
186	1	402		MCW	X1,SX1B	7		1402	M 089 M52		10
187	1	409	DEZONE	MZ	*-4,9&X3	7		1409	Y U11 0?9		10
188	1	416		MZ	*-4,12&X3	7		1416	Y U18 0A2		10
189	1	423		MZ	*-4,15&X3	7		1423	Y U25 0A5		10
190	1	430		MZ	*-4,18&X3	7		1430	Y U32 0A8		11
191	1	437		BCE	DEZONX,22&X3,	8		1437	B U84 0B2		11
192	1	445		MCW	22&X3,X1	7		1445	M 0B2 089		11
193	1	452		MCW	0&X1,22&X3	7		1452	M 010 0B2		11
194	1	459		MA	K004,22&X3	7		1459	# M55 0B2		11
195	1	466		MA	W3,22&X3	7		1466	# 859 0B2		12
196	1	473		MCW	0&X1,X3	7		1473	M 010 099		12
197	1	480		B	DEZONE	4		1480	B U09		12

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
198	1	484	DEZONX	SBR	22&X3,4&X2	7		1484	H 0B2 0!4		12
199	1	491		MA	W3,22&X3	7		1491	# 859 0B2		12
200	1	498		MCW	SX1B,X1	7		1498	M M52 089		12
201	1	505		BCE	*&8,0&X1,B	8		1505	B V20 0!0 B		13
202	1	513		SBR	3&X1,918 ???	7		1513	H 0!3 918		13
203	1	520	SX3B	SBR	X3,0-0	7		1520	H 099 000		13
204	1	527	REPORT	MCW	W3,227	7		1527	M 859 227		13
205	1	534		MA	X2,227	7		1534	# 094 227		13
206	1	541		MCW	227,X3	7		1541	M 227 099		14
207	1	548		MCW	X3,ADR5	7		1548	M 099 896		14
208	1	555		B	CONV35 CONVERT ADR5 TO ADR5B	4		1555	B 969		14
209	1	559		MCS	ADR5B,244	7		1559	Z 891 244		14
210	1	566		MCW	X3,256	7		1566	M 099 256		14
211	1	573		MA	K004,256	7		1573	# M55 256		14
212	1	580		W		1		1580	2		15
213	1	581		BCV	*&5	5		1581	B V90 @		15
214	1	586		B	*&3	4		1586	B V92		15
215	1	590		CC	1	2		1590	F 1		15
216	1	592		MCW	X2,LINK2&6	7		1592	M 094 X01		15
217	1	599		BCE	ENDSTM,0&X1,} GM	8		1599	B W74 0!0 }	GMARK	15
218	1	607		MN	0&X2	4		1607	D 0!0		15
219	1	611		SAR	X2	4		1611	Q 094		16
220	1	615	MORE	MCM	0&X1	4		1615	P 0!0		16
221	1	619		SAR	NEWX1&6	4		1619	Q W41		16
222	1	623		MCM	0&X1,1&X2 MOVE CODE DOWN	7		1623	P 0!0 0!1		16
223	1	630		MN		1		1630	D		16
224	1	631		SBR	X2	4		1631	H 094		16
225	1	635	NEWX1	SBR	X1,0-0	7		1635	H 089 000		16
226	1	642		BCE	MORE,0&X2,	8		1642	B W15 0!0		17
227	1	650		BWZ	*&5,0&X1,2	8		1650	V W62 0!0 2		17
228	1	658		B	LINK1	4		1658	B W88		17
229	1	662		BWZ	MARK,2&X1,2	8		1662	V X02 0!2 2		17
230	1	670		B	LINK1	4		1670	B W88		17
231	1	674	ENDSTM	SBR	X1,1&X1	7		1674	H 089 0!1		17
232	1	681		MCW	BRANCH,SWITCH	7		1681	M M56 X09		18
233	1	688	LINK1	MCW	2&X1,X3 PREFIX IS ADDR OF STATEMENT NUMBER	7		1688	M 0!2 099		18
234	1	695	LINK2	SBR	0&X3,0-0 START OF STATEMENT TO STMT NUM TBL	7		1695	H 0?0 000		18
235	1	702	MARK	MCW	COLON,0&X1	7		1702	M M57 0!0		18
236	1	709	SWITCH	NOP	ENDST2	4		1709	N X61		18
237	1	713		MN	0&X1	4		1713	D 0!0		18
238	1	717		MN		1		1717	D		18
239	1	718		SAR	X1	4		1718	Q 089		19
240	1	722		MN	0&X2	4		1722	D 0!0		19
241	1	726		SAR	*&7	4		1726	Q X36		19
242	1	730	SETWMS	LCA	0&X1,0&X2 SET WORD MARKS IN MOVED-DOWN CODE	7		1730	L 0!0 0!0		19
243	1	737		SBR	*-4	4		1737	H X36		19
244	1	741		C	0&X1	4		1741	C 0!0		19
245	1	745		SAR	X1	4		1745	Q 089		19
246	1	749		BCE	*&5,0&X1,} GM	8		1749	B X61 0!0 }	GMARK	20
247	1	757		B	SETWMS	4		1757	B X30		20

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
248			*								
249	1	761	ENDST2	MCW	NOP,SWITCH	7		1761	M 558 X09		20
250	1	768		C	NEXT,TOPA	7		1768	C 850 841		20
251	1	775		BU	CONTIN	5		1775	B Y14 /		20
252			*								
253	1	780	DONE	LCA	COLON,0&X2	7		1780	L M57 0!0		20
254	1	787		SBR	X3	4		1787	H 099		21
255	1	791		BSS	SNAPSH,C	5		1791	B 333 C		21
256	1	796		SBR	CLEARL&3,GMWM	7		1796	H 710 M69		21
257	1	803		LCA	RESORT,PHASID	7		1803	L M66 110		21
258	1	810		B	LOADNX	4		1810	B 700		21
259			*								
260	1	814	CONTIN	BCE	INDIR2,FLAG,1	8		1814	B Y58 884 1		21
261	1	822		B	LOOP	4		1822	B /83		21
262			*								
263			*		* SORT TABLE ENTRY IS THE ADDRESS OF ANOTHER ONE						
264			*								
265	1	826	INDIR	MCW	0&X3,X3	7		1826	M 0?0 099		22
266	1	833		MCW	0&X3,X1	7		1833	M 0?0 089		22
267	1	840		SBR	NEWX3&3,3&X3	7		1840	H Y68 0?3		22
268	1	847		MCW	K1,FLAG	7		1847	M M48 884		22
269	1	854		B	INDIRB	4		1854	B S32		22
270			*								
271	1	858	INDIR2	MCW	K0,FLAG	7		1858	M M49 884		22
272	1	865	NEWX3	MCW	0-0,X1	7		1865	M 000 089		23
273	1	872		MCW	NEWX3&3,TOPC	7		1872	M Y68 862		23
274	1	879		MCW	K1,F1	7		1879	M M48 M43		23
275	1	886		B	INNER	4		1886	B S39		23
276			*								
277	1	890	TEST	SBR	TESTX&3	4		1890	H 229		23
278	1	894		MCW	SX3,ADR5	7		1894	M 856 896		23
279	1	901		B	CONV35 CONVERT ADR5 TO ADR5B	4		1901	B 969		24
280	1	905		MCW	ADR5B,TIMES6	7		1905	M 891 875		24
281	1	912		S	TOPC5,TIMES6	7		1912	S 870 875		24
282	1	919		C	W5,TIMES6	7		1919	C 880 875		24
283	1	926	TESTX	B	0-0	4		1926	B 000		24
284			*								
285			*		* EMPTY CELL IN SORT TABLE						
286			*								
287	1	930	EMPTY	A	K1,208	7		1930	A M48 208		24
288	1	937		C	NEXT,TOPA	7		1937	C 850 841		25
289	1	944		BE	DONE	5		1944	B X80 S		25
290	1	949		SBR	X3,3&X3	7		1949	H 099 0?3		25
291	1	956		SBR	NEXT	4		1956	H 850		25
292	1	960		B	MIDDLE	4		1960	B /94		25
293			*								
294	1	964	MOVED	SBR	SX3,2&X3	7		1964	H 856 0?2		25
295	1	971	MOVED1	MCW	SX3,X3	7		1971	M 856 099		26
296	1	978		SBR	X3,2&X3	7		1978	H 099 0?2		26
297	1	985		B	FINDGM	4		1985	B  52		26

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
298	1	989		BCE	MOVED,0&X3,: COLON MEANS STATEMENT ALREADY MOVED	8		1989	B 264 0?0 :		26
299	1	997		B	TEST	4		1997	B Y90		26
300	2	001		BL	*&5	5		2001	B !10 T		26
301	2	006		B	NEWSTM	4		2006	B T34		26
302			*								
303	2	010		SBR	SX2A&6,0&X2	7		2010	H M19 0!0		27
304	2	017	TSTTOP	C	X3,TOPCOR	7		2017	C 099 688		27
305	2	024		BE	ATTOP	5		2024	B !44 S		27
306	2	029		SBR	X1,3&X3	7		2029	H 089 0?3		27
307	2	036		BCE	NEXTAB,0&X1,} GM	8		2036	B !57 0!0 } GMARK		27
308	2	044	ATTOP	B	TEST	4		2044	B Y90		27
309	2	048		BL	TOOBIG	5		2048	B !92 T		28
310	2	053		B	SX2A	4		2053	B M13		28
311	2	057	NEXTAB	SBR	X3,4&X3	7		2057	H 099 0?4		28
312	2	064	NEXTB1	B	FINDGM	4		2064	B !52		28
313	2	068		C	0&X3,COLON	7		2068	C 0?0 M57		28
314	2	075		BU	TSTTOP	5		2075	B !17 /		28
315	2	080		SBR	NEXTX1&6,0&X3	7		2080	H J46 0?0		28
316	2	087		SBR	SX3A,2&X3	7		2087	H 853 0?2		29
317	2	094		SBR	X3,3&X3	7		2094	H 099 0?3		29
318	2	101	LOOP2	LCA	0&X1,0&X3	7		2101	L 0!0 0?0		29
319	2	108		SAR	X1	4		2108	Q 089		29
320	2	112		C	0&X3	4		2112	C 0?0		29
321	2	116		SAR	X3	4		2116	Q 099		29
322	2	120		BCE	*&5,0&X1,} GM	8		2120	B J32 0!0 } GMARK		30
323	2	128		B	LOOP2	4		2128	B J01		30
324	2	132		MN	0&X1	4		2132	D 0!0		30
325	2	136		SAR	SX1	4		2136	Q 844		30
326	2	140	NEXTX1	SBR	X1,0-0	7		2140	H 089 000		30
327	2	147		BWZ	*&5,1&X1,S	8		2147	V J59 0!1 S		30
328	2	155		B	*&8	4		2155	B J66		30
329	2	159		MCW	K1,F2	7		2159	M M48 M44		31
330	2	166		BWZ	*&5,0&X1,2	8		2166	V J78 0!0 2		31
331	2	174		B	*&9	4		2174	B J86		31
332	2	178		BWZ	*&19,2&X1,2	8		2178	V K04 0!2 2		31
333	2	186		MCW	2&X1,X1	7		2186	M 0!2 089		31
334	2	193		MCW	0&X1,X2	7		2193	M 0!0 094		32
335	2	200		B	*&8	4		2200	B K11		32
336	2	204		MCW	2&X1,X2	7		2204	M 0!2 094		32
337	2	211		SBR	SEQNO,0&X2	7		2211	H 865 0!0		32
338	2	218		SBR	*&14	4		2218	H K35		32
339	2	222		MZ	X2ZONE,*&6	7		2222	Y M67 K34		32
340	2	229		SBR	X2,0-0	7		2229	H 094 000		33
341	2	236		MCW	SEQNO,*&14	7		2236	M 865 K56		33
342	2	243		MZ	X2ZONE,*&6	7		2243	Y M67 K55		33
343	2	250		SBR	X2,0-0	7		2250	H 094 000		33
344	2	257		BWZ	*&12,SORTAB-1&X2,S	8		2257	V K76 MR8 S		33
345	2	265		SBR	SORTAB&X2,1&X3	7		2265	H MR9 0?1		34
346	2	272		B	SKIP2	4		2272	B L16		34
347	2	276		MCW	SORTAB&X2,X1	7		2276	M MR9 089		34

SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
348	2	283		BCE	*&12,F2,1	8		2283	B L02 M44 1		34
349	2	291		SBR	3&X1,1&X3	7		2291	H 0 3 0?1		34
350	2	298		B	*&15	4		2298	B L16		34
351	2	302		SBR	0&X1,1&X3	7		2302	H 0 0 0?1		35
352	2	309		MCW	K0,F2	7		2309	M M49 M44		35
353	2	316	SKIP2	C	SX1,SX3	7		2316	C 844 856		35
354	2	323		BE	LOOP2X	5		2323	B L56 S		35
355	2	328		MCW	SX1,X1	7		2328	M 844 089		35
356	2	335		MN	0&X3	4		2335	D 0?0		35
357	2	339		MN		1		2339	D		35
358	2	340		MN		1		2340	D		36
359	2	341		SAR	NEXTX1&6	4		2341	Q J46		36
360	2	345		SBR	X1,1&X1	7		2345	H 089 0 1		36
361	2	352		B	LOOP2	4		2352	B J01		36
362	2	356	LOOP2X	LCA	GM,0&X3	7		2356	L M68 0?0		36
363	2	363		SBR	SX3	4		2363	H 856		36
364	2	367		C	SEQTAB,SX3A	7		2367	C 148 853		36
365	2	374		BE	ATBOT	5		2374	B M04 S		37
366	2	379		MCW	SX3A,X3	7		2379	M 853 099		37
367	2	386		SBR	X1,1&X3	7		2386	H 089 0?1		37
368	2	393		SBR	X3,2&X3	7		2393	H 099 0?2		37
369	2	400		B	NEXTB1	4		2400	B !64		37
370				*							
371				*	AT BOTTOM OF SORT TABLE						
372				*							
373	2	404	ATBOT	B	TEST	4		2404	B Y90		37
374	2	408		BL	TOOBIG	5		2408	B  92 T		37
375	2	413	SX2A	SBR	X2,0-0	7		2413	H 094 000		38
376	2	420		MCW	TOPC,X3	7		2420	M 862 099		38
377	2	427		MCW	0&X3,SX1A	7		2427	M 0?0 M47		38
378	2	434		B	NEWSTM	4		2434	B T34		38
379				*							
380				*	DATA						
381				*							
382	2	442	W5B	DCW	00000	5		2442			38
383	2	443	F1	DCW	0	1		2443			38
384	2	444	F2	DCW	0	1		2444			38
385	2	447	SX1A	DCW	#3	3		2447			39
386	2	448	K1	DCW	1	1		2448			39
387	2	449	K0	DCW	0	1		2449			39
388	2	452	SX1B	DCW	#3	3		2452			39
389	2	455	K004	DSA	4	3		2455	004		39
390	2	456	BRANCH	B		1		2456	B		39
391	2	457	COLON	DCW	@:@	1		2457			39
392	2	458	NOP	NOP		1		2458	N		40
393	2	466	RESORT	DCW	@RESORT 4@	8		2466			40
394	2	467	X2ZONE	DCW	@R@	1		2467			40
395	2	468	GM	DC	@}@	1		2468		GMARK	40
396	2	469	GMWM	DCW	@}@	1		2469		GMARK	40
397				ORG	201				0201		

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FORTRAN COMPILER -- RESORT 3 PHASE -- PHASE 49

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SEQ	PG	LIN	LABEL	OP	OPERANDS	SFX	CT	LOCN	INSTRUCTION	TYPE	CARD
398		203		DSA	LOADDD				/75		41
399				EX					B /75		42
400				END					/ 000 080		

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
ADR5	896	ADR5B	891	ATBOT	2404	ATTOP	2044	BEGINN	1175	BRANCH	2456	CLEARL	707
COLON	2457	CONTIN	1814	CONV35	969	DEZONE	1409	DEZONX	1484	DONE	1780	EMPTY	1930
ENDST2	1761	ENDSTM	1674	F1	2443	F2	2444	FINDGM	1052	FLAG	884	GM	2468
GMWM	2469	INDIR	1826	INDIR2	1858	INDIRB	1232	INNER	1239	K0	2449	K004	2455
K1	2448	LINK1	1688	LINK2	1695	LOADDD	1175	LOADNX	700	LOOP	1183	LOOP2	2101
LOOP2X	2356	MARK	1702	MIDDLE	1194	MORE	1615	MOVED	1964	MOVED1	1971	NEWSTM	1334
NEWX1	1635	NEWX3	1865	NEXT	850	NEXTAB	2057	NEXTB1	2064	NEXTX1	2140	NOP	2458
PHASID	110	REPORT	1527	RESORT	2466	SEQNO	865	SEQTAB	148	SETWMS	1730	SKIP2	2316
SNAPSH	333	SORTAB	2499	SWITCH	1709	SX1	844	SX1A	2447	SX1B	2452	SX2A	2413
SX3	856	SX3A	853	SX3B	1520	TEST	1890	TESTX	1926	TIMES6	875	TOOBIG	1092
TOPA	841	TOPC	862	TOPC5	870	TOPCOR	688	TSTTOP	2017	W3	859	W5	880
W5B	2442	X1	89	X2	94	X2ZONE	2467	X3	99				