

LOC	OBJECT CODE	ADDR1	ADDR2	STMT
				2 *****
				3 *
				4 *            Zvector E6 instruction tests for VSI encoded:
				5 *
				6 *            E634 VPKZ        - VECTOR PACK ZONED
				7 *            E635 VLRL        - VECTOR LOAD RIGHTMOST WITH LENGTH
				8 *
				9 *            James Wekel June 2024
				10 *****
				12 *****
				13 *
				14 *            basic instruction tests
				15 *
				16 *****
				17 *    This program tests proper functioning of the z/arch E6 VSI vector
				18 *    pack zones and load rightmost instructions.
				19 *    Exceptions are not tested.
				20 *
				21 *    PLEASE NOTE that the tests are very SIMPLE TESTS designed to catch
				22 *    obvious coding errors.  None of the tests are thorough.  They are
				23 *    NOT designed to test all aspects of any of the instructions.
				24 *
				25 *****
				26 *
				27 *            *Testcase VECTOR E6 VSI pack/load instructions
				28 *            *
				29 *            *        Zvector E6 instruction tests for VSI encoded:
				30 *            *
				31 *            *        E634 VPKZ        - VECTOR PACK ZONED
				32 *            *        E635 VLRL        - VECTOR LOAD RIGHTMOST WITH LENGTH
				33 *            *
				34 *            *        # -----
				35 *            *        #    This tests only the basic function of the instruction.
				36 *            *        #    Specification Exceptions are NOT tested.
				37 *            *        # -----
				38 *            *
				39 *        main size        2
				40 *        numcpu         1
				41 *        sysclear
				42 *        archlvl        z/Arch
				43 *
				44 *        loadcore        "\$(testpath)/zvector-e6-03-pack.core" 0x0
				45 *
				46 *        diag8cmd        enable        # (needed for messages to Hercules console)
				47 *        runtest         2
				48 *        diag8cmd        disable      # (reset back to default)
				49 *
				50 *        *Done
				51 *
				52 *****

LOC	OBJECT CODE	ADDR1	ADDR2	STMT
				54 *****
				55 * FCHECK Macro - Is a Facility Bit set?
				56 *
				57 * If the facility bit is NOT set, an message is issued and
				58 * the test is skipped.
				59 *
				60 * Fcheck uses R0, R1 and R2
				61 *
				62 * eg. FCHECK 134, 'vector-packed-decimal'
				63 *****
				64 MACRO
				65 FCHECK &BITNO, &NOTSETMSG
				66 . * &BITNO : facility bit number to check
				67 . * &NOTSETMSG : 'facility name'
				68 LCLA &FBBYTE Facility bit in Byte
				69 LCLA &FBBIT Facility bit within Byte
				70
				71 LCLA &L(8)
				72 &L(1) SetA 128, 64, 32, 16, 8, 4, 2, 1 bit positions within byte
				73
				74 &FBBYTE SETA &BITNO/8
				75 &FBBIT SETA &L((&BITNO-(&FBBYTE*8))+1)
				76 . * MNOTE 0, 'checking Bit=&BITNO: FBBYTE=&FBBYTE, FBBIT=&FBBIT'
				77
				78 B X&SYSNDX
				79 * Fcheck data area
				80 * skip messgae
				81 SKT&SYSNDX DC C' Skipping tests: '
				82 DC C&NOTSETMSG
				83 DC C' facility (bit &BITNO) is not installed.'
				84 SKL&SYSNDX EQU *-SKT&SYSNDX
				85 * facility bits
				86 DS FD gap
				87 FB&SYSNDX DS 4FD
				88 DS FD gap
				89 *
				90 X&SYSNDX EQU *
				91 LA R0, ((X&SYSNDX- FB&SYSNDX)/8)-1
				92 STFLE FB&SYSNDX get facility bits
				93
				94 XGR R0, R0
				95 IC R0, FB&SYSNDX+&FBBYTE get fbit byte
				96 N R0, =F' &FBBIT' is bit set?
				97 BNZ XC&SYSNDX
				98 *
				99 * facility bit not set, issue message and exit
				100 *
				101 LA R0, SKL&SYSNDX message length
				102 LA R1, SKT&SYSNDX message address
				103 BAL R2, MSG
				104
				105 B EOJ
				106 XC&SYSNDX EQU *
				107 MEND

LOC	OBJECT CODE	ADDR1	ADDR2	STMT			
				109	*****		
				110	* Low core PSWs		
				111	*****		
00000000		00000000	00001A8B	112	ZVE6TST	START 0	
		00000000		113	USING	ZVE6TST, R0	Low core addressability
		00000140	00000000	114			
				115	SVOLDPSW EQU	ZVE6TST+X' 140'	z/Arch Supervisor call old PSW
00000000		00000000	000001A0	117	ORG	ZVE6TST+X' 1A0'	z/Architecture RESTART PSW
000001A0	00000001 80000000			118	DC	X' 0000000180000000'	
000001A8	00000000 00000200			119	DC	AD(BEGIN)	
000001B0		000001B0	000001D0	121	ORG	ZVE6TST+X' 1D0'	z/Architecture PROGRAM CHECK PSW
000001D0	00020001 80000000			122	DC	X' 0002000180000000'	
000001D8	00000000 0000DEAD			123	DC	AD(X' DEAD')	
000001E0		000001E0	00000200	125	ORG	ZVE6TST+X' 200'	Start of actual test program..
				127	*****		
				128	* The actual "ZVE6TST" program itself...		
				129	*****		
				130	*		
				131	* Architecture Mode: z/Arch		
				132	* Register Usage:		
				133	*		
				134	* R0	(work)	
				135	* R1- 4	(work)	
				136	* R5	Testing control table - current test base	
				137	* R6- R7	(work)	
				138	* R8	First base register	
				139	* R9	Second base register	
				140	* R10	Third base register	
				141	* R11	E6TEST call return	
				142	* R12	E6TESTS register	
				143	* R13	(work)	
				144	* R14	Subroutine call	
				145	* R15	Secondary Subroutine call or work	
				146	*		
				147	*****		
00000200		00000200		149	USING	BEGIN, R8	FIRST Base Register
00000200		00001200		150	USING	BEGIN+4096, R9	SECOND Base Register
00000200		00002200		151	USING	BEGIN+8192, R10	THIRD Base Register
00000200	0580			153	BEGIN	BALR R8, 0	Inititalize FIRST base register
00000202	0680			154	BCTR	R8, 0	Inititalize FIRST base register
00000204	0680			155	BCTR	R8, 0	Inititalize FIRST base register
00000206	4190 8800		00000800	157	LA	R9, 2048(, R8)	Inititalize SECOND base register
0000020A	4190 9800		00000800	158	LA	R9, 2048(, R9)	Inititalize SECOND base register
				159			



LOC	OBJECT	CODE	ADDR1	ADDR2	STMT	
					201	*****
					202	*                    Do tests in the E6TESTS table
					203	*****
					204	
000002D8	58C0	82A8		000004A8	205	L        R12, =A(E6TESTS)        get table of test addresses
			000002DC	00000001	206	
000002DC	5850	C000		00000000	207	NEXTE6    EQU    *
000002E0	1255				208	L        R5, 0(0, R12)        get test address
000002E2	4780	812C		0000032C	209	LTR      R5, R5        have a test?
					210	BZ       ENDTEST        done?
					211	
000002E6			00000000		212	USING E6TEST, R5
					213	
000002E6	4800	5004		00000004	214	LH      R0, TNUM        save current test number
000002EA	5000	8E04		00001004	215	ST      R0, TESTING     for easy reference
					216	
000002EE	E710	8EA4	0006	000010A4	217	VL      V1, V1FUDGE
000002F4	58B0	5000		00000000	218	L        R11, TSUB        get address of test routine
000002F8	05BB				219	BALR    R11, R11        do test
					220	
000002FA	E710	8E84	000E	00001084	221	VST     V1, V10UTPUT
00000300	E310	5014	0014	00000014	222	LGF     R1, READDR        get address of expected result
00000306	D50F	8E84	1000	00000000	223	CLC     V10UTPUT, 0(R1)    valid?
0000030C	4770	8118		00000318	224	BNE     FAILMSG        no, issue failed message
					225	
00000310	41C0	C004		00000004	226	LA      R12, 4(0, R12)    next test address
00000314	47F0	80DC		000002DC	227	B        NEXTE6







LOC	OBJECT CODE	ADDR1	ADDR2	STMT
				334 *****
				335 *            Normal completion or Abnormal termination PSWs
				336 *****
00000470	00020001 80000000			338 EOJPSW    DC        0D' 0' , X' 0002000180000000' , AD(0)
00000480	B2B2 8270		00000470	340 EOJ        LPSWE EOJPSW                    Normal completion
00000488	00020001 80000000			342 FAILPSW   DC        0D' 0' , X' 0002000180000000' , AD(X' BAD' )
00000498	B2B2 8288		00000488	344 FAILTEST LPSWE FAILPSW                   Abnormal termination
				346 *****
				347 *            Working Storage
				348 *****
0000049C	00000000			350 CTLR0     DS        F                    CRO
000004A0	00000000			351            DS        F
000004A4				353            LTORG ,                    Literals pool
000004A4	00000002			354                    =F' 2'
000004A8	000019C0			355                    =A(E6TESTS)
000004AC	00000001			356                    =F' 1'
000004B0	0000			357                    =H' 0'
000004B2	005F			358                    =AL2(L' MSGMSG)
				359
				360 *            some constants
				361
	00000400	00000001		362 K           EQU        1024                    One KB
	00001000	00000001		363 PAGE       EQU        (4*K)                    Size of one page
	00010000	00000001		364 K64        EQU        (64*K)                    64 KB
	00100000	00000001		365 MB         EQU        (K*K)                    1 MB
				366
	AABBCCDD	00000001		367 REG2PATT EQU        X' AABBCCDD'            Polluted Register pattern
	000000DD	00000001		368 REG2LOW EQU                    X' DD'                    (last byte above)





LOC	OBJECT CODE	ADDR1	ADDR2	STMT
				415 *****
				416 *            E6TEST DSECT
				417 *****
				419 E6TEST    DSECT ,
00000000	00000000			420 TSUB      DC    A(0)            pointer to test
00000004	0000			421 TNUM      DC    H' 00'            Test Number
00000006	00			422            DC    X' 00'
00000007	00			423 I3        DC    HL1' 00'            I3 used
				424
00000008	40404040	40404040		425 OPNAME    DC    CL8' '            E6 name
00000010	00000000			426 RELEN     DC    A(0)            RESULT LENGTH
00000014	00000000			427 READDR    DC    A(0)
				428
				429 *            test routine will be here (from VSI macro)
				430 *
				431 *            followed by
				432 *            EXPECTED RESULT
000010E4		00000000	00001A8B	434 ZVE6TST   CSECT ,
				435            DS    0F
				437 *****
				438 *            Macros to help build test tables
				439 *****
				441 *
				442 *    macro to generate individual test
				443 *
				444            MACRO
				445            VSI    &INST, &I3
				446 . *                            &INST    - VSI instruction under test
				447 . *                            &i3        - i3 field
				448
				449            GBLA   &TNUM
				450 &TNUM      SETA   &TNUM+1
				451
				452            DS    0FD
				453            USING *, R5            base for test data and test routine
				454
				455 T&TNUM    DC    A(X&TNUM)            address of test routine
				456            DC    H' &TNUM            test number
				457            DC    X' 00'
				458            DC    HL1' &I3'            i3
				459            DC    CL8' &INST'        instruction name
				460            DC    A(16)            result length
				461 REA&TNUM DC    A(RE&TNUM)        result address
				462 . *
				463 *
				464 X&TNUM    DS    0F
				465            &INST V1, V1INPUT, &I3    test instruction





LOC	OBJECT CODE	ADDR1	ADDR2	STMT			
0000114E	00			550+	DC	X' 00'	
0000114F	02			551+	DC	HL1' 02'	i3
00001150	E5D7D2E9 40404040			552+	DC	CL8' VPKZ'	instruction name
00001158	00000010			553+	DC	A(16)	result length
0000115C	00001168			554+REA3	DC	A(RE3)	result address
				555+*			
00001160				556+X3	DS	0F	
00001160	E602 8EB4 1034		000010B4	557+	VPKZ	V1, V1INPUT, 02	test instruction
00001166	07FB			558+	BR	R11	return
00001168				559+RE3	DC	0F	xl16 result
00001168				560+	DROP	R5	
00001168	00000000 00000000			561	DC	XL16' 0000000000000000000000000000123F'	
00001170	00000000 0000123F						
				562			
				563	VSI	VPKZ, 03	
00001178				564+	DS	0FD	
00001178		00001178		565+	USING	*, R5	base for test data and test routine
00001178	00001190			566+T4	DC	A(X4)	address of test routine
0000117C	0004			567+	DC	H' 4'	test number
0000117E	00			568+	DC	X' 00'	
0000117F	03			569+	DC	HL1' 03'	i3
00001180	E5D7D2E9 40404040			570+	DC	CL8' VPKZ'	instruction name
00001188	00000010			571+	DC	A(16)	result length
0000118C	00001198			572+REA4	DC	A(RE4)	result address
				573+*			
00001190				574+X4	DS	0F	
00001190	E603 8EB4 1034		000010B4	575+	VPKZ	V1, V1INPUT, 03	test instruction
00001196	07FB			576+	BR	R11	return
00001198				577+RE4	DC	0F	xl16 result
00001198				578+	DROP	R5	
00001198	00000000 00000000			579	DC	XL16' 00000000000000000000000000001234F'	
000011A0	00000000 0001234F						
				580			
				581	VSI	VPKZ, 04	
000011A8				582+	DS	0FD	
000011A8		000011A8		583+	USING	*, R5	base for test data and test routine
000011A8	000011C0			584+T5	DC	A(X5)	address of test routine
000011AC	0005			585+	DC	H' 5'	test number
000011AE	00			586+	DC	X' 00'	
000011AF	04			587+	DC	HL1' 04'	i3
000011B0	E5D7D2E9 40404040			588+	DC	CL8' VPKZ'	instruction name
000011B8	00000010			589+	DC	A(16)	result length
000011BC	000011C8			590+REA5	DC	A(RE5)	result address
				591+*			
000011C0				592+X5	DS	0F	
000011C0	E604 8EB4 1034		000010B4	593+	VPKZ	V1, V1INPUT, 04	test instruction
000011C6	07FB			594+	BR	R11	return
000011C8				595+RE5	DC	0F	xl16 result
000011C8				596+	DROP	R5	
000011C8	00000000 00000000			597	DC	XL16' 000000000000000000000000000012345F'	
000011D0	00000000 0012345F						
				598			
				599	VSI	VPKZ, 05	
000011D8				600+	DS	0FD	
000011D8		000011D8		601+	USING	*, R5	base for test data and test routine
000011D8	000011F0			602+T6	DC	A(X6)	address of test routine



LOC	OBJECT CODE	ADDR1	ADDR2	STMT		
00001268	00001280			656+T9	DC	A(X9)
0000126C	0009			657+	DC	H' 9'
0000126E	00			658+	DC	X' 00'
0000126F	08			659+	DC	HL1' 08'
00001270	E5D7D2E9 40404040			660+	DC	CL8' VPKZ'
00001278	00000010			661+	DC	A(16)
0000127C	00001288			662+REA9	DC	A(RE9)
				663+*		
00001280				664+X9	DS	0F
00001280	E608 8EB4 1034		000010B4	665+	VPKZ	V1, V1INPUT, 08
00001286	07FB			666+	BR	R11
00001288				667+RE9	DC	0F
00001288				668+	DROP	R5
00001288	00000000 00000000			669	DC	XL16' 000000000000000000000000123456789F'
00001290	00000012 3456789F					
				670		
				671	VSI	VPKZ, 09
00001298				672+	DS	0FD
00001298		00001298		673+	USING	*, R5
00001298	000012B0			674+T10	DC	A(X10)
0000129C	000A			675+	DC	H' 10'
0000129E	00			676+	DC	X' 00'
0000129F	09			677+	DC	HL1' 09'
000012A0	E5D7D2E9 40404040			678+	DC	CL8' VPKZ'
000012A8	00000010			679+	DC	A(16)
000012AC	000012B8			680+REA10	DC	A(RE10)
				681+*		
000012B0				682+X10	DS	0F
000012B0	E609 8EB4 1034		000010B4	683+	VPKZ	V1, V1INPUT, 09
000012B6	07FB			684+	BR	R11
000012B8				685+RE10	DC	0F
000012B8				686+	DROP	R5
000012B8	00000000 00000000			687	DC	XL16' 0000000000000000000000001234567890F'
000012C0	00000123 4567890F					
				688		
000012C8				689	VSI	VPKZ, 10
000012C8		000012C8		690+	DS	0FD
000012C8	000012E0			691+	USING	*, R5
000012CC	000B			692+T11	DC	A(X11)
000012CE	00			693+	DC	H' 11'
000012CF	0A			694+	DC	X' 00'
000012D0	E5D7D2E9 40404040			695+	DC	HL1' 10'
000012D8	00000010			696+	DC	CL8' VPKZ'
000012DC	000012E8			697+	DC	A(16)
				698+REA11	DC	A(RE11)
				699+*		
000012E0				700+X11	DS	0F
000012E0	E60A 8EB4 1034		000010B4	701+	VPKZ	V1, V1INPUT, 10
000012E6	07FB			702+	BR	R11
000012E8				703+RE11	DC	0F
000012E8				704+	DROP	R5
000012E8	00000000 00000000			705	DC	XL16' 00000000000000000000000012345678901F'
000012F0	00001234 5678901F					
				706		
				707	VSI	VPKZ, 11
000012F8				708+	DS	0FD

LOC	OBJECT CODE	ADDR1	ADDR2	STMT		
000012F8		000012F8		709+	USING *,R5	base for test data and test routine
000012F8	00001310			710+T12	DC A(X12)	address of test routine
000012FC	000C			711+	DC H' 12'	test number
000012FE	00			712+	DC X' 00'	
000012FF	0B			713+	DC HL1' 11'	i3
00001300	E5D7D2E9 40404040			714+	DC CL8' VPKZ'	instruction name
00001308	00000010			715+	DC A(16)	result length
0000130C	00001318			716+REA12	DC A(RE12)	result address
				717+*		
00001310				718+X12	DS 0F	
00001310	E60B 8EB4 1034		000010B4	719+	VPKZ V1, V1INPUT, 11	test instruction
00001316	07FB			720+	BR R11	return
00001318				721+RE12	DC 0F	xl 16 result
00001318				722+	DROP R5	
00001318	00000000 00000000			723	DC XL16' 000000000000000000000000123456789012F'	
00001320	00012345 6789012F					
				724		
00001328				725	VSI VPKZ, 12	
00001328		00001328		726+	DS 0FD	
00001328	00001340			727+	USING *,R5	base for test data and test routine
0000132C	000D			728+T13	DC A(X13)	address of test routine
0000132E	00			729+	DC H' 13'	test number
0000132F	0C			730+	DC X' 00'	
00001330	E5D7D2E9 40404040			731+	DC HL1' 12'	i3
00001338	00000010			732+	DC CL8' VPKZ'	instruction name
0000133C	00001348			733+	DC A(16)	result length
				734+REA13	DC A(RE13)	result address
				735+*		
00001340				736+X13	DS 0F	
00001340	E60C 8EB4 1034		000010B4	737+	VPKZ V1, V1INPUT, 12	test instruction
00001346	07FB			738+	BR R11	return
00001348				739+RE13	DC 0F	xl 16 result
00001348				740+	DROP R5	
00001348	00000000 00000000			741	DC XL16' 0000000000000000000000001234567890123F'	
00001350	00123456 7890123F					
				742		
00001358				743	VSI VPKZ, 13	
00001358		00001358		744+	DS 0FD	
00001358	00001370			745+	USING *,R5	base for test data and test routine
0000135C	000E			746+T14	DC A(X14)	address of test routine
0000135E	00			747+	DC H' 14'	test number
0000135F	0D			748+	DC X' 00'	
00001360	E5D7D2E9 40404040			749+	DC HL1' 13'	i3
00001368	00000010			750+	DC CL8' VPKZ'	instruction name
0000136C	00001378			751+	DC A(16)	result length
				752+REA14	DC A(RE14)	result address
				753+*		
00001370				754+X14	DS 0F	
00001370	E60D 8EB4 1034		000010B4	755+	VPKZ V1, V1INPUT, 13	test instruction
00001376	07FB			756+	BR R11	return
00001378				757+RE14	DC 0F	xl 16 result
00001378				758+	DROP R5	
00001378	00000000 00000000			759	DC XL16' 00000000000000000000000012345678901234F'	
00001380	01234567 8901234F					
				760		
				761	VSI VPKZ, 14	

LOC	OBJECT CODE	ADDR1	ADDR2	STMT			
00001388				762+	DS	OFD	
00001388		00001388		763+	USING	*, R5	base for test data and test routine
00001388	000013A0			764+T15	DC	A(X15)	address of test routine
0000138C	000F			765+	DC	H' 15'	test number
0000138E	00			766+	DC	X' 00'	
0000138F	0E			767+	DC	HL1' 14'	i3
00001390	E5D7D2E9 40404040			768+	DC	CL8' VPKZ'	instruction name
00001398	00000010			769+	DC	A(16)	result length
0000139C	000013A8			770+REA15	DC	A(RE15)	result address
				771+*			
000013A0				772+X15	DS	OF	
000013A0	E60E 8EB4 1034		000010B4	773+	VPKZ	V1, V1INPUT, 14	test instruction
000013A6	07FB			774+	BR	R11	return
000013A8				775+RE15	DC	OF	xl 16 result
000013A8				776+	DROP	R5	
000013A8	00000000 00000000			777	DC	XL16' 0000000000000000123456789012345F'	
000013B0	12345678 9012345F						
				778			
				779	VSI	VPKZ, 15	
000013B8		000013B8		780+	DS	OFD	
000013B8				781+	USING	*, R5	base for test data and test routine
000013B8	000013D0			782+T16	DC	A(X16)	address of test routine
000013BC	0010			783+	DC	H' 16'	test number
000013BE	00			784+	DC	X' 00'	
000013BF	0F			785+	DC	HL1' 15'	i3
000013C0	E5D7D2E9 40404040			786+	DC	CL8' VPKZ'	instruction name
000013C8	00000010			787+	DC	A(16)	result length
000013CC	000013D8			788+REA16	DC	A(RE16)	result address
				789+*			
000013D0				790+X16	DS	OF	
000013D0	E60F 8EB4 1034		000010B4	791+	VPKZ	V1, V1INPUT, 15	test instruction
000013D6	07FB			792+	BR	R11	return
000013D8				793+RE16	DC	OF	xl 16 result
000013D8				794+	DROP	R5	
000013D8	00000000 00000001			795	DC	XL16' 00000000000000001234567890123456F'	
000013E0	23456789 0123456F						
				796			
				797	VSI	VPKZ, 16	
000013E8		000013E8		798+	DS	OFD	
000013E8				799+	USING	*, R5	base for test data and test routine
000013E8	00001400			800+T17	DC	A(X17)	address of test routine
000013EC	0011			801+	DC	H' 17'	test number
000013EE	00			802+	DC	X' 00'	
000013EF	10			803+	DC	HL1' 16'	i3
000013F0	E5D7D2E9 40404040			804+	DC	CL8' VPKZ'	instruction name
000013F8	00000010			805+	DC	A(16)	result length
000013FC	00001408			806+REA17	DC	A(RE17)	result address
				807+*			
00001400				808+X17	DS	OF	
00001400	E610 8EB4 1034		000010B4	809+	VPKZ	V1, V1INPUT, 16	test instruction
00001406	07FB			810+	BR	R11	return
00001408				811+RE17	DC	OF	xl 16 result
00001408				812+	DROP	R5	
00001408	00000000 00000012			813	DC	XL16' 000000000000000012345678901234567F'	
00001410	34567890 1234567F						
				814			

LOC	OBJECT CODE	ADDR1	ADDR2	STMT		
00001418				815	VSI	VPKZ, 17
00001418				816+	DS	OFD
00001418		00001418		817+	USING	*, R5
00001418	00001430			818+T18	DC	A(X18)
0000141C	0012			819+	DC	H' 18'
0000141E	00			820+	DC	X' 00'
0000141F	11			821+	DC	HL1' 17'
00001420	E5D7D2E9 40404040			822+	DC	CL8' VPKZ'
00001428	00000010			823+	DC	A(16)
0000142C	00001438			824+REA18	DC	A(RE18)
				825+*		
00001430				826+X18	DS	OF
00001430	E611 8EB4 1034		000010B4	827+	VPKZ	V1, V1INPUT, 17
00001436	07FB			828+	BR	R11
00001438				829+RE18	DC	OF
00001438				830+	DROP	R5
00001438	00000000 00000123			831	DC	XL16' 0000000000000123456789012345678F'
00001440	45678901 2345678F					
				832		
00001448				833	VSI	VPKZ, 18
00001448				834+	DS	OFD
00001448		00001448		835+	USING	*, R5
00001448	00001460			836+T19	DC	A(X19)
0000144C	0013			837+	DC	H' 19'
0000144E	00			838+	DC	X' 00'
0000144F	12			839+	DC	HL1' 18'
00001450	E5D7D2E9 40404040			840+	DC	CL8' VPKZ'
00001458	00000010			841+	DC	A(16)
0000145C	00001468			842+REA19	DC	A(RE19)
				843+*		
00001460				844+X19	DS	OF
00001460	E612 8EB4 1034		000010B4	845+	VPKZ	V1, V1INPUT, 18
00001466	07FB			846+	BR	R11
00001468				847+RE19	DC	OF
00001468				848+	DROP	R5
00001468	00000000 00001234			849	DC	XL16' 0000000000001234567890123456789F'
00001470	56789012 3456789F					
				850		
00001478				851	VSI	VPKZ, 19
00001478				852+	DS	OFD
00001478		00001478		853+	USING	*, R5
00001478	00001490			854+T20	DC	A(X20)
0000147C	0014			855+	DC	H' 20'
0000147E	00			856+	DC	X' 00'
0000147F	13			857+	DC	HL1' 19'
00001480	E5D7D2E9 40404040			858+	DC	CL8' VPKZ'
00001488	00000010			859+	DC	A(16)
0000148C	00001498			860+REA20	DC	A(RE20)
				861+*		
00001490				862+X20	DS	OF
00001490	E613 8EB4 1034		000010B4	863+	VPKZ	V1, V1INPUT, 19
00001496	07FB			864+	BR	R11
00001498				865+RE20	DC	OF
00001498				866+	DROP	R5
00001498	00000000 00012345			867	DC	XL16' 0000000000012345678901234567890F'
000014A0	67890123 4567890F					

LOC	OBJECT CODE	ADDR1	ADDR2	STMT		
				868		
				869	VSI	VPKZ, 20
000014A8				870+	DS	OFD
000014A8		000014A8		871+	USING	*, R5
000014A8	000014C0			872+T21	DC	A(X21)
000014AC	0015			873+	DC	H' 21'
000014AE	00			874+	DC	X' 00'
000014AF	14			875+	DC	HL1' 20'
000014B0	E5D7D2E9 40404040			876+	DC	CL8' VPKZ'
000014B8	00000010			877+	DC	A(16)
000014BC	000014C8			878+REA21	DC	A(RE21)
				879+*		
000014C0				880+X21	DS	OF
000014C0	E614 8EB4 1034		000010B4	881+	VPKZ	V1, V1INPUT, 20
000014C6	07FB			882+	BR	R11
000014C8				883+RE21	DC	OF
000014C8				884+	DROP	R5
000014C8	00000000 00123456			885	DC	XL16' 0000000000123456789012345678901F'
000014D0	78901234 5678901F					
				886		
				887	VSI	VPKZ, 21
000014D8				888+	DS	OFD
000014D8		000014D8		889+	USING	*, R5
000014D8	000014F0			890+T22	DC	A(X22)
000014DC	0016			891+	DC	H' 22'
000014DE	00			892+	DC	X' 00'
000014DF	15			893+	DC	HL1' 21'
000014E0	E5D7D2E9 40404040			894+	DC	CL8' VPKZ'
000014E8	00000010			895+	DC	A(16)
000014EC	000014F8			896+REA22	DC	A(RE22)
				897+*		
000014F0				898+X22	DS	OF
000014F0	E615 8EB4 1034		000010B4	899+	VPKZ	V1, V1INPUT, 21
000014F6	07FB			900+	BR	R11
000014F8				901+RE22	DC	OF
000014F8				902+	DROP	R5
000014F8	00000000 01234567			903	DC	XL16' 0000000001234567890123456789012F'
00001500	89012345 6789012F					
				904		
				905	VSI	VPKZ, 22
00001508				906+	DS	OFD
00001508		00001508		907+	USING	*, R5
00001508	00001520			908+T23	DC	A(X23)
0000150C	0017			909+	DC	H' 23'
0000150E	00			910+	DC	X' 00'
0000150F	16			911+	DC	HL1' 22'
00001510	E5D7D2E9 40404040			912+	DC	CL8' VPKZ'
00001518	00000010			913+	DC	A(16)
0000151C	00001528			914+REA23	DC	A(RE23)
				915+*		
00001520				916+X23	DS	OF
00001520	E616 8EB4 1034		000010B4	917+	VPKZ	V1, V1INPUT, 22
00001526	07FB			918+	BR	R11
00001528				919+RE23	DC	OF
00001528				920+	DROP	R5
00001528	00000000 12345678			921	DC	XL16' 0000000012345678901234567890123F'

LOC	OBJECT CODE	ADDR1	ADDR2	STMT		
00001530	90123456 7890123F			922		
				923	VSI	VPKZ, 23
00001538				924+	DS	OFD
00001538		00001538		925+	USING	*, R5
00001538	00001550			926+T24	DC	A(X24)
0000153C	0018			927+	DC	H' 24'
0000153E	00			928+	DC	X' 00'
0000153F	17			929+	DC	HL1' 23'
00001540	E5D7D2E9 40404040			930+	DC	CL8' VPKZ'
00001548	00000010			931+	DC	A(16)
0000154C	00001558			932+REA24	DC	A(RE24)
				933+*		
00001550				934+X24	DS	OF
00001550	E617 8EB4 1034		000010B4	935+	VPKZ	V1, V1INPUT, 23
00001556	07FB			936+	BR	R11
00001558				937+RE24	DC	OF
00001558				938+	DROP	R5
00001558	00000001 23456789			939	DC	XL16' 0000000123456789012345678901234F'
00001560	01234567 8901234F					
				940		
				941	VSI	VPKZ, 24
00001568				942+	DS	OFD
00001568		00001568		943+	USING	*, R5
00001568	00001580			944+T25	DC	A(X25)
0000156C	0019			945+	DC	H' 25'
0000156E	00			946+	DC	X' 00'
0000156F	18			947+	DC	HL1' 24'
00001570	E5D7D2E9 40404040			948+	DC	CL8' VPKZ'
00001578	00000010			949+	DC	A(16)
0000157C	00001588			950+REA25	DC	A(RE25)
				951+*		
00001580				952+X25	DS	OF
00001580	E618 8EB4 1034		000010B4	953+	VPKZ	V1, V1INPUT, 24
00001586	07FB			954+	BR	R11
00001588				955+RE25	DC	OF
00001588				956+	DROP	R5
00001588	00000012 34567890			957	DC	XL16' 0000001234567890123456789012345F'
00001590	12345678 9012345F					
				958		
				959	VSI	VPKZ, 25
00001598				960+	DS	OFD
00001598		00001598		961+	USING	*, R5
00001598	000015B0			962+T26	DC	A(X26)
0000159C	001A			963+	DC	H' 26'
0000159E	00			964+	DC	X' 00'
0000159F	19			965+	DC	HL1' 25'
000015A0	E5D7D2E9 40404040			966+	DC	CL8' VPKZ'
000015A8	00000010			967+	DC	A(16)
000015AC	000015B8			968+REA26	DC	A(RE26)
				969+*		
000015B0				970+X26	DS	OF
000015B0	E619 8EB4 1034		000010B4	971+	VPKZ	V1, V1INPUT, 25
000015B6	07FB			972+	BR	R11
000015B8				973+RE26	DC	OF
000015B8				974+	DROP	R5

LOC	OBJECT CODE	ADDR1	ADDR2	STMT		
000015B8	00000123 45678901			975	DC	XL16' 0000012345678901234567890123456F'
000015C0	23456789 0123456F					
				976		
				977	VSI	VPKZ, 26
000015C8				978+	DS	OFD
000015C8		000015C8		979+	USING	*, R5
000015C8	000015E0			980+T27	DC	A(X27)
000015CC	001B			981+	DC	H' 27'
000015CE	00			982+	DC	X' 00'
000015CF	1A			983+	DC	HL1' 26'
000015D0	E5D7D2E9 40404040			984+	DC	CL8' VPKZ'
000015D8	00000010			985+	DC	A(16)
000015DC	000015E8			986+REA27	DC	A(RE27)
				987+*		
000015E0				988+X27	DS	OF
000015E0	E61A 8EB4 1034		000010B4	989+	VPKZ	V1, V1INPUT, 26
000015E6	07FB			990+	BR	R11
000015E8				991+RE27	DC	OF
000015E8				992+	DROP	R5
000015E8	00001234 56789012			993	DC	XL16' 0000123456789012345678901234567F'
000015F0	34567890 1234567F					
				994		
				995	VSI	VPKZ, 27
000015F8				996+	DS	OFD
000015F8		000015F8		997+	USING	*, R5
000015F8	00001610			998+T28	DC	A(X28)
000015FC	001C			999+	DC	H' 28'
000015FE	00			1000+	DC	X' 00'
000015FF	1B			1001+	DC	HL1' 27'
00001600	E5D7D2E9 40404040			1002+	DC	CL8' VPKZ'
00001608	00000010			1003+	DC	A(16)
0000160C	00001618			1004+REA28	DC	A(RE28)
				1005+*		
00001610				1006+X28	DS	OF
00001610	E61B 8EB4 1034		000010B4	1007+	VPKZ	V1, V1INPUT, 27
00001616	07FB			1008+	BR	R11
00001618				1009+RE28	DC	OF
00001618				1010+	DROP	R5
00001618	00012345 67890123			1011	DC	XL16' 0001234567890123456789012345678F'
00001620	45678901 2345678F					
				1012		
				1013	VSI	VPKZ, 28
00001628				1014+	DS	OFD
00001628		00001628		1015+	USING	*, R5
00001628	00001640			1016+T29	DC	A(X29)
0000162C	001D			1017+	DC	H' 29'
0000162E	00			1018+	DC	X' 00'
0000162F	1C			1019+	DC	HL1' 28'
00001630	E5D7D2E9 40404040			1020+	DC	CL8' VPKZ'
00001638	00000010			1021+	DC	A(16)
0000163C	00001648			1022+REA29	DC	A(RE29)
				1023+*		
00001640				1024+X29	DS	OF
00001640	E61C 8EB4 1034		000010B4	1025+	VPKZ	V1, V1INPUT, 28
00001646	07FB			1026+	BR	R11
00001648				1027+RE29	DC	OF

LOC	OBJECT CODE	ADDR1	ADDR2	STMT			
00001648				1028+	DROP	R5	
00001648	00123456 78901234			1029	DC	XL16'	0012345678901234567890123456789F'
00001650	56789012 3456789F						
				1030			
				1031	VSI	VPKZ, 29	
00001658				1032+	DS	OFD	
00001658		00001658		1033+	USING	*, R5	base for test data and test routine
00001658	00001670			1034+T30	DC	A(X30)	address of test routine
0000165C	001E			1035+	DC	H' 30'	test number
0000165E	00			1036+	DC	X' 00'	
0000165F	1D			1037+	DC	HL1' 29'	i3
00001660	E5D7D2E9 40404040			1038+	DC	CL8' VPKZ'	instruction name
00001668	00000010			1039+	DC	A(16)	result length
0000166C	00001678			1040+REA30	DC	A(RE30)	result address
				1041+*			
00001670				1042+X30	DS	OF	
00001670	E61D 8EB4 1034		000010B4	1043+	VPKZ	V1, V1INPUT, 29	test instruction
00001676	07FB			1044+	BR	R11	return
00001678				1045+RE30	DC	OF	xl16 result
00001678				1046+	DROP	R5	
00001678	01234567 89012345			1047	DC	XL16'	0123456789012345678901234567890F'
00001680	67890123 4567890F						
				1048			
				1049	VSI	VPKZ, 30	
00001688				1050+	DS	OFD	
00001688		00001688		1051+	USING	*, R5	base for test data and test routine
00001688	000016A0			1052+T31	DC	A(X31)	address of test routine
0000168C	001F			1053+	DC	H' 31'	test number
0000168E	00			1054+	DC	X' 00'	
0000168F	1E			1055+	DC	HL1' 30'	i3
00001690	E5D7D2E9 40404040			1056+	DC	CL8' VPKZ'	instruction name
00001698	00000010			1057+	DC	A(16)	result length
0000169C	000016A8			1058+REA31	DC	A(RE31)	result address
				1059+*			
000016A0				1060+X31	DS	OF	
000016A0	E61E 8EB4 1034		000010B4	1061+	VPKZ	V1, V1INPUT, 30	test instruction
000016A6	07FB			1062+	BR	R11	return
000016A8				1063+RE31	DC	OF	xl16 result
000016A8				1064+	DROP	R5	
000016A8	12345678 90123456			1065	DC	XL16'	1234567890123456789012345678909D' note: D
000016B0	78901234 5678909D						
				1066			
				1067 *			
				1068 *	VLRL	- VECTOR LOAD RIGHTMOST WITH LENGTH	
				1069 *			
				1070	VSI	VLRL, 00	
000016B8				1071+	DS	OFD	
000016B8		000016B8		1072+	USING	*, R5	base for test data and test routine
000016B8	000016D0			1073+T32	DC	A(X32)	address of test routine
000016BC	0020			1074+	DC	H' 32'	test number
000016BE	00			1075+	DC	X' 00'	
000016BF	00			1076+	DC	HL1' 00'	i3
000016C0	E5D3D9D3 40404040			1077+	DC	CL8' VLRL'	instruction name
000016C8	00000010			1078+	DC	A(16)	result length
000016CC	000016D8			1079+REA32	DC	A(RE32)	result address
				1080+*			

LOC	OBJECT CODE	ADDR1	ADDR2	STMT			
000016D0				1081+X32	DS	0F	
000016D0	E600 8EB4 1035		000010B4	1082+	VLRL	V1, V1INPUT, 00	test instruction
000016D6	07FB			1083+	BR	R11	return
000016D8				1084+RE32	DC	0F	xl16 result
000016D8				1085+	DROP	R5	
000016D8	00000000 00000000			1086	DC	XL16' 000000000000000000000000000000F1'	
000016E0	00000000 000000F1						
				1087			
				1088	VSI	VLRL, 01	
000016E8				1089+	DS	0FD	
000016E8		000016E8		1090+	USING	*, R5	base for test data and test routine
000016E8	00001700			1091+T33	DC	A(X33)	address of test routine
000016EC	0021			1092+	DC	H' 33'	test number
000016EE	00			1093+	DC	X' 00'	
000016EF	01			1094+	DC	HL1' 01'	i3
000016F0	E5D3D9D3 40404040			1095+	DC	CL8' VLRL'	instruction name
000016F8	00000010			1096+	DC	A(16)	result length
000016FC	00001708			1097+REA33	DC	A(RE33)	result address
				1098+*			
00001700				1099+X33	DS	0F	
00001700	E601 8EB4 1035		000010B4	1100+	VLRL	V1, V1INPUT, 01	test instruction
00001706	07FB			1101+	BR	R11	return
00001708				1102+RE33	DC	0F	xl16 result
00001708				1103+	DROP	R5	
00001708	00000000 00000000			1104	DC	XL16' 0000000000000000000000000000F1F2'	
00001710	00000000 0000F1F2						
				1105			
				1106	VSI	VLRL, 02	
00001718				1107+	DS	0FD	
00001718		00001718		1108+	USING	*, R5	base for test data and test routine
00001718	00001730			1109+T34	DC	A(X34)	address of test routine
0000171C	0022			1110+	DC	H' 34'	test number
0000171E	00			1111+	DC	X' 00'	
0000171F	02			1112+	DC	HL1' 02'	i3
00001720	E5D3D9D3 40404040			1113+	DC	CL8' VLRL'	instruction name
00001728	00000010			1114+	DC	A(16)	result length
0000172C	00001738			1115+REA34	DC	A(RE34)	result address
				1116+*			
00001730				1117+X34	DS	0F	
00001730	E602 8EB4 1035		000010B4	1118+	VLRL	V1, V1INPUT, 02	test instruction
00001736	07FB			1119+	BR	R11	return
00001738				1120+RE34	DC	0F	xl16 result
00001738				1121+	DROP	R5	
00001738	00000000 00000000			1122	DC	XL16' 00000000000000000000000000F1F2F3'	
00001740	00000000 00F1F2F3						
				1123			
				1124	VSI	VLRL, 03	
00001748				1125+	DS	0FD	
00001748		00001748		1126+	USING	*, R5	base for test data and test routine
00001748	00001760			1127+T35	DC	A(X35)	address of test routine
0000174C	0023			1128+	DC	H' 35'	test number
0000174E	00			1129+	DC	X' 00'	
0000174F	03			1130+	DC	HL1' 03'	i3
00001750	E5D3D9D3 40404040			1131+	DC	CL8' VLRL'	instruction name
00001758	00000010			1132+	DC	A(16)	result length
0000175C	00001768			1133+REA35	DC	A(RE35)	result address

LOC	OBJECT CODE	ADDR1	ADDR2	STMT			
00001760				1134+*			
00001760	E603 8EB4 1035		000010B4	1135+X35	DS	0F	
00001766	07FB			1136+	VLRL	V1, V1INPUT, 03	test instruction
00001768				1137+	BR	R11	return
00001768				1138+RE35	DC	0F	xl 16 result
00001768				1139+	DROP	R5	
00001768	00000000 00000000			1140	DC	XL16' 00000000000000000000000000F1F2F3F4'	
00001770	00000000 F1F2F3F4						
				1141			
00001778				1142	VSI	VLRL, 04	
00001778		00001778		1143+	DS	0FD	
00001778	00001790			1144+	USING	*, R5	base for test data and test routine
0000177C	0024			1145+T36	DC	A(X36)	address of test routine
0000177E	00			1146+	DC	H' 36'	test number
0000177F	04			1147+	DC	X' 00'	
00001780	E5D3D9D3 40404040			1148+	DC	HL1' 04'	i3
00001788	00000010			1149+	DC	CL8' VLRL'	instruction name
0000178C	00001798			1150+	DC	A(16)	result length
				1151+REA36	DC	A(RE36)	result address
				1152+*			
00001790				1153+X36	DS	0F	
00001790	E604 8EB4 1035		000010B4	1154+	VLRL	V1, V1INPUT, 04	test instruction
00001796	07FB			1155+	BR	R11	return
00001798				1156+RE36	DC	0F	xl 16 result
00001798				1157+	DROP	R5	
00001798	00000000 00000000			1158	DC	XL16' 000000000000000000000000F1F2F3F4F5'	
000017A0	000000F1 F2F3F4F5						
				1159			
				1160			
000017A8				1161	VSI	VLRL, 05	
000017A8		000017A8		1162+	DS	0FD	
000017A8	000017C0			1163+	USING	*, R5	base for test data and test routine
000017AC	0025			1164+T37	DC	A(X37)	address of test routine
000017AE	00			1165+	DC	H' 37'	test number
000017AF	05			1166+	DC	X' 00'	
000017B0	E5D3D9D3 40404040			1167+	DC	HL1' 05'	i3
000017B8	00000010			1168+	DC	CL8' VLRL'	instruction name
000017BC	000017C8			1169+	DC	A(16)	result length
				1170+REA37	DC	A(RE37)	result address
				1171+*			
000017C0				1172+X37	DS	0F	
000017C0	E605 8EB4 1035		000010B4	1173+	VLRL	V1, V1INPUT, 05	test instruction
000017C6	07FB			1174+	BR	R11	return
000017C8				1175+RE37	DC	0F	xl 16 result
000017C8				1176+	DROP	R5	
000017C8	00000000 00000000			1177	DC	XL16' 000000000000000000000000F1F2F3F4F5F6'	
000017D0	0000F1F2 F3F4F5F6						
				1178			
000017D8				1179	VSI	VLRL, 06	
000017D8		000017D8		1180+	DS	0FD	
000017D8	000017F0			1181+	USING	*, R5	base for test data and test routine
000017DC	0026			1182+T38	DC	A(X38)	address of test routine
000017DE	00			1183+	DC	H' 38'	test number
000017DE	00			1184+	DC	X' 00'	
000017DF	06			1185+	DC	HL1' 06'	i3
000017E0	E5D3D9D3 40404040			1186+	DC	CL8' VLRL'	instruction name

LOC	OBJECT CODE	ADDR1	ADDR2	STMT			
000017E8	00000010			1187+	DC	A(16)	result length
000017EC	000017F8			1188+REA38	DC	A(RE38)	result address
				1189+*			
000017F0				1190+X38	DS	0F	
000017F0	E606 8EB4 1035		000010B4	1191+	VLRL	V1, V1INPUT, 06	test instruction
000017F6	07FB			1192+	BR	R11	return
000017F8				1193+RE38	DC	0F	xl 16 result
000017F8				1194+	DROP	R5	
000017F8	00000000 00000000			1195	DC	XL16' 00000000000000000000F1F2F3F4F5F6F7'	
00001800	00F1F2F3 F4F5F6F7						
				1196			
00001808				1197	VSI	VLRL, 07	
00001808		00001808		1198+	DS	0FD	
00001808	00001820			1199+	USING	*, R5	base for test data and test routine
0000180C	0027			1200+T39	DC	A(X39)	address of test routine
0000180E	00			1201+	DC	H' 39'	test number
0000180F	07			1202+	DC	X' 00'	
00001810	E5D3D9D3 40404040			1203+	DC	HL1' 07'	i3
00001818	00000010			1204+	DC	CL8' VLRL'	instruction name
0000181C	00001828			1205+	DC	A(16)	result length
				1206+REA39	DC	A(RE39)	result address
				1207+*			
00001820				1208+X39	DS	0F	
00001820	E607 8EB4 1035		000010B4	1209+	VLRL	V1, V1INPUT, 07	test instruction
00001826	07FB			1210+	BR	R11	return
00001828				1211+RE39	DC	0F	xl 16 result
00001828				1212+	DROP	R5	
00001828	00000000 00000000			1213	DC	XL16' 0000000000000000F1F2F3F4F5F6F7F8'	
00001830	F1F2F3F4 F5F6F7F8						
				1214			
00001838				1215	VSI	VLRL, 08	
00001838		00001838		1216+	DS	0FD	
00001838	00001850			1217+	USING	*, R5	base for test data and test routine
0000183C	0028			1218+T40	DC	A(X40)	address of test routine
0000183E	00			1219+	DC	H' 40'	test number
0000183F	08			1220+	DC	X' 00'	
00001840	E5D3D9D3 40404040			1221+	DC	HL1' 08'	i3
00001848	00000010			1222+	DC	CL8' VLRL'	instruction name
0000184C	00001858			1223+	DC	A(16)	result length
				1224+REA40	DC	A(RE40)	result address
				1225+*			
00001850				1226+X40	DS	0F	
00001850	E608 8EB4 1035		000010B4	1227+	VLRL	V1, V1INPUT, 08	test instruction
00001856	07FB			1228+	BR	R11	return
00001858				1229+RE40	DC	0F	xl 16 result
00001858				1230+	DROP	R5	
00001858	00000000 000000F1			1231	DC	XL16' 0000000000000000F1F2F3F4F5F6F7F8F9'	
00001860	F2F3F4F5 F6F7F8F9						
				1232			
00001868				1233	VSI	VLRL, 09	
00001868		00001868		1234+	DS	0FD	
00001868	00001880			1235+	USING	*, R5	base for test data and test routine
0000186C	0029			1236+T41	DC	A(X41)	address of test routine
0000186E	00			1237+	DC	H' 41'	test number
0000186F	09			1238+	DC	X' 00'	
				1239+	DC	HL1' 09'	i3

LOC	OBJECT CODE	ADDR1	ADDR2	STMT			
00001870	E5D3D9D3 40404040			1240+	DC	CL8' VLRL'	instruction name
00001878	00000010			1241+	DC	A(16)	result length
0000187C	00001888			1242+REA41	DC	A(RE41)	result address
				1243+*			
00001880				1244+X41	DS	0F	
00001880	E609 8EB4 1035		000010B4	1245+	VLRL	V1, V1INPUT, 09	test instruction
00001886	07FB			1246+	BR	R11	return
00001888				1247+RE41	DC	0F	xl16 result
00001888				1248+	DROP	R5	
00001888	00000000 0000F1F2			1249	DC	XL16' 000000000000F1F2F3F4F5F6F7F8F9F0'	
00001890	F3F4F5F6 F7F8F9F0						
				1250			
				1251	VSI	VLRL, 10	
00001898				1252+	DS	0FD	
00001898		00001898		1253+	USING	*, R5	base for test data and test routine
00001898	000018B0			1254+T42	DC	A(X42)	address of test routine
0000189C	002A			1255+	DC	H' 42'	test number
0000189E	00			1256+	DC	X' 00'	
0000189F	0A			1257+	DC	HL1' 10'	i3
000018A0	E5D3D9D3 40404040			1258+	DC	CL8' VLRL'	instruction name
000018A8	00000010			1259+	DC	A(16)	result length
000018AC	000018B8			1260+REA42	DC	A(RE42)	result address
				1261+*			
000018B0				1262+X42	DS	0F	
000018B0	E60A 8EB4 1035		000010B4	1263+	VLRL	V1, V1INPUT, 10	test instruction
000018B6	07FB			1264+	BR	R11	return
000018B8				1265+RE42	DC	0F	xl16 result
000018B8				1266+	DROP	R5	
000018B8	00000000 00F1F2F3			1267	DC	XL16' 0000000000F1F2F3F4F5F6F7F8F9F0F1'	
000018C0	F4F5F6F7 F8F9F0F1						
				1268			
				1269	VSI	VLRL, 11	
000018C8				1270+	DS	0FD	
000018C8		000018C8		1271+	USING	*, R5	base for test data and test routine
000018C8	000018E0			1272+T43	DC	A(X43)	address of test routine
000018CC	002B			1273+	DC	H' 43'	test number
000018CE	00			1274+	DC	X' 00'	
000018CF	0B			1275+	DC	HL1' 11'	i3
000018D0	E5D3D9D3 40404040			1276+	DC	CL8' VLRL'	instruction name
000018D8	00000010			1277+	DC	A(16)	result length
000018DC	000018E8			1278+REA43	DC	A(RE43)	result address
				1279+*			
000018E0				1280+X43	DS	0F	
000018E0	E60B 8EB4 1035		000010B4	1281+	VLRL	V1, V1INPUT, 11	test instruction
000018E6	07FB			1282+	BR	R11	return
000018E8				1283+RE43	DC	0F	xl16 result
000018E8				1284+	DROP	R5	
000018E8	00000000 F1F2F3F4			1285	DC	XL16' 00000000F1F2F3F4F5F6F7F8F9F0F1F2'	
000018F0	F5F6F7F8 F9F0F1F2						
				1286			
				1287	VSI	VLRL, 12	
000018F8				1288+	DS	0FD	
000018F8		000018F8		1289+	USING	*, R5	base for test data and test routine
000018F8	00001910			1290+T44	DC	A(X44)	address of test routine
000018FC	002C			1291+	DC	H' 44'	test number
000018FE	00			1292+	DC	X' 00'	

LOC	OBJECT CODE	ADDR1	ADDR2	STMT			
000018FF	0C			1293+	DC	HL1' 12'	i3
00001900	E5D3D9D3 40404040			1294+	DC	CL8' VLRL'	instruction name
00001908	00000010			1295+	DC	A(16)	result length
0000190C	00001918			1296+REA44	DC	A(RE44)	result address
				1297+*			
00001910				1298+X44	DS	0F	
00001910	E60C 8EB4 1035		000010B4	1299+	VLRL	V1, V1INPUT, 12	test instruction
00001916	07FB			1300+	BR	R11	return
00001918				1301+RE44	DC	0F	xl 16 result
00001918				1302+	DROP	R5	
00001918	000000F1 F2F3F4F5			1303	DC	XL16' 000000F1F2F3F4F5F6F7F8F9F0F1F2F3'	
00001920	F6F7F8F9 F0F1F2F3						
				1304			
				1305	VSI	VLRL, 13	
00001928				1306+	DS	0FD	
00001928		00001928		1307+	USING	*, R5	base for test data and test routine
00001928	00001940			1308+T45	DC	A(X45)	address of test routine
0000192C	002D			1309+	DC	H' 45'	test number
0000192E	00			1310+	DC	X' 00'	
0000192F	0D			1311+	DC	HL1' 13'	i3
00001930	E5D3D9D3 40404040			1312+	DC	CL8' VLRL'	instruction name
00001938	00000010			1313+	DC	A(16)	result length
0000193C	00001948			1314+REA45	DC	A(RE45)	result address
				1315+*			
00001940				1316+X45	DS	0F	
00001940	E60D 8EB4 1035		000010B4	1317+	VLRL	V1, V1INPUT, 13	test instruction
00001946	07FB			1318+	BR	R11	return
00001948				1319+RE45	DC	0F	xl 16 result
00001948				1320+	DROP	R5	
00001948	0000F1F2 F3F4F5F6			1321	DC	XL16' 0000F1F2F3F4F5F6F7F8F9F0F1F2F3F4'	
00001950	F7F8F9F0 F1F2F3F4						
				1322			
				1323	VSI	VLRL, 14	
00001958				1324+	DS	0FD	
00001958		00001958		1325+	USING	*, R5	base for test data and test routine
00001958	00001970			1326+T46	DC	A(X46)	address of test routine
0000195C	002E			1327+	DC	H' 46'	test number
0000195E	00			1328+	DC	X' 00'	
0000195F	0E			1329+	DC	HL1' 14'	i3
00001960	E5D3D9D3 40404040			1330+	DC	CL8' VLRL'	instruction name
00001968	00000010			1331+	DC	A(16)	result length
0000196C	00001978			1332+REA46	DC	A(RE46)	result address
				1333+*			
00001970				1334+X46	DS	0F	
00001970	E60E 8EB4 1035		000010B4	1335+	VLRL	V1, V1INPUT, 14	test instruction
00001976	07FB			1336+	BR	R11	return
00001978				1337+RE46	DC	0F	xl 16 result
00001978				1338+	DROP	R5	
00001978	00F1F2F3 F4F5F6F7			1339	DC	XL16' 00F1F2F3F4F5F6F7F8F9F0F1F2F3F4F5'	
00001980	F8F9F0F1 F2F3F4F5						
				1340			
				1341	VSI	VLRL, 15	
00001988				1342+	DS	0FD	
00001988		00001988		1343+	USING	*, R5	base for test data and test routine
00001988	000019A0			1344+T47	DC	A(X47)	address of test routine
0000198C	002F			1345+	DC	H' 47'	test number

LOC	OBJECT CODE	ADDR1	ADDR2	STMT			
0000198E	00			1346+	DC	X' 00'	
0000198F	0F			1347+	DC	HL1' 15'	i3
00001990	E5D3D9D3	40404040		1348+	DC	CL8' VLRL'	instruction name
00001998	00000010			1349+	DC	A(16)	result length
0000199C	000019A8			1350+REA47	DC	A(RE47)	result address
				1351+*			
000019A0				1352+X47	DS	0F	
000019A0	E60F 8EB4	1035	000010B4	1353+	VLRL	V1, V1INPUT, 15	test instruction
000019A6	07FB			1354+	BR	R11	return
000019A8				1355+RE47	DC	0F	xl16 result
000019A8				1356+	DROP	R5	
000019A8	F1F2F3F4	F5F6F7F8		1357	DC	XL16' F1F2F3F4F5F6F7F8F9F0F1F2F3F4F5F6'	
000019B0	F9F0F1F2	F3F4F5F6					
				1358			
				1359			
000019B8	00000000			1360	DC	F' 0'	END OF TABLE
000019BC	00000000			1361	DC	F' 0'	
				1362 *			
				1363 *		table of pointers to individual load test	
				1364 *			
000019C0				1365 E6TESTS	DS	0F	
				1366	PTTABLE		
000019C0				1367+TTABLE	DS	0F	
000019C0	000010E8			1368+	DC	A(T1)	TEST &CUR
000019C4	00001118			1369+	DC	A(T2)	TEST &CUR
000019C8	00001148			1370+	DC	A(T3)	TEST &CUR
000019CC	00001178			1371+	DC	A(T4)	TEST &CUR
000019D0	000011A8			1372+	DC	A(T5)	TEST &CUR
000019D4	000011D8			1373+	DC	A(T6)	TEST &CUR
000019D8	00001208			1374+	DC	A(T7)	TEST &CUR
000019DC	00001238			1375+	DC	A(T8)	TEST &CUR
000019E0	00001268			1376+	DC	A(T9)	TEST &CUR
000019E4	00001298			1377+	DC	A(T10)	TEST &CUR
000019E8	000012C8			1378+	DC	A(T11)	TEST &CUR
000019EC	000012F8			1379+	DC	A(T12)	TEST &CUR
000019F0	00001328			1380+	DC	A(T13)	TEST &CUR
000019F4	00001358			1381+	DC	A(T14)	TEST &CUR
000019F8	00001388			1382+	DC	A(T15)	TEST &CUR
000019FC	000013B8			1383+	DC	A(T16)	TEST &CUR
00001A00	000013E8			1384+	DC	A(T17)	TEST &CUR
00001A04	00001418			1385+	DC	A(T18)	TEST &CUR
00001A08	00001448			1386+	DC	A(T19)	TEST &CUR
00001A0C	00001478			1387+	DC	A(T20)	TEST &CUR
00001A10	000014A8			1388+	DC	A(T21)	TEST &CUR
00001A14	000014D8			1389+	DC	A(T22)	TEST &CUR
00001A18	00001508			1390+	DC	A(T23)	TEST &CUR
00001A1C	00001538			1391+	DC	A(T24)	TEST &CUR
00001A20	00001568			1392+	DC	A(T25)	TEST &CUR
00001A24	00001598			1393+	DC	A(T26)	TEST &CUR
00001A28	000015C8			1394+	DC	A(T27)	TEST &CUR
00001A2C	000015F8			1395+	DC	A(T28)	TEST &CUR
00001A30	00001628			1396+	DC	A(T29)	TEST &CUR
00001A34	00001658			1397+	DC	A(T30)	TEST &CUR
00001A38	00001688			1398+	DC	A(T31)	TEST &CUR
00001A3C	000016B8			1399+	DC	A(T32)	TEST &CUR
00001A40	000016E8			1400+	DC	A(T33)	TEST &CUR



LOC	OBJECT	CODE	ADDR1	ADDR2	STMT				
					1422	*****			
					1423	*	Register equates		
					1424	*****			
			00000000	00000001	1426	R0	EQU	0	
			00000001	00000001	1427	R1	EQU	1	
			00000002	00000001	1428	R2	EQU	2	
			00000003	00000001	1429	R3	EQU	3	
			00000004	00000001	1430	R4	EQU	4	
			00000005	00000001	1431	R5	EQU	5	
			00000006	00000001	1432	R6	EQU	6	
			00000007	00000001	1433	R7	EQU	7	
			00000008	00000001	1434	R8	EQU	8	
			00000009	00000001	1435	R9	EQU	9	
			0000000A	00000001	1436	R10	EQU	10	
			0000000B	00000001	1437	R11	EQU	11	
			0000000C	00000001	1438	R12	EQU	12	
			0000000D	00000001	1439	R13	EQU	13	
			0000000E	00000001	1440	R14	EQU	14	
			0000000F	00000001	1441	R15	EQU	15	
					1443	*****			
					1444	*	Register equates		
					1445	*****			
			00000000	00000001	1447	V0	EQU	0	
			00000001	00000001	1448	V1	EQU	1	
			00000002	00000001	1449	V2	EQU	2	
			00000003	00000001	1450	V3	EQU	3	
			00000004	00000001	1451	V4	EQU	4	
			00000005	00000001	1452	V5	EQU	5	
			00000006	00000001	1453	V6	EQU	6	
			00000007	00000001	1454	V7	EQU	7	
			00000008	00000001	1455	V8	EQU	8	
			00000009	00000001	1456	V9	EQU	9	
			0000000A	00000001	1457	V10	EQU	10	
			0000000B	00000001	1458	V11	EQU	11	
			0000000C	00000001	1459	V12	EQU	12	
			0000000D	00000001	1460	V13	EQU	13	
			0000000E	00000001	1461	V14	EQU	14	
			0000000F	00000001	1462	V15	EQU	15	
			00000010	00000001	1463	V16	EQU	16	
			00000011	00000001	1464	V17	EQU	17	
			00000012	00000001	1465	V18	EQU	18	
			00000013	00000001	1466	V19	EQU	19	
			00000014	00000001	1467	V20	EQU	20	
			00000015	00000001	1468	V21	EQU	21	



ASMA Ver. 0.7.0 zvector-e6-03-pack (Zvector E6 VSI pack/load)						18 Jun 2024 18:57:08												Page	34
SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES														
BEGIN	I	00000200	2	153	119	149	150	151											
CTLRO	F	0000049C	4	350	163	164	165	166											
DECNUM	C	00001072	16	401	264	266	272	274											
E6TEST	4	00000000	24	419	212														
E6TESTS	F	000019C0	4	1365	205														
EDIT	X	00001046	18	396	265	273													
ENDTEST	U	0000032C	1	250	210														
E0J	I	00000480	4	340	198	253													
E0JPSW	D	00000470	8	338	340														
FAILCONT	U	0000031C	1	240															
FAILED	F	00001000	4	378	242	251													
FAILMSG	U	00000318	1	234	224														
FAILPSW	D	00000488	8	342	344														
FAILTEST	I	00000498	4	344	254														
FB0001	F	00000288	8	182	186	187	189												
I3	U	00000007	1	423	271														
IMAGE	1	00000000	6796	0															
K	U	00000400	1	362	363	364	365												
K64	U	00010000	1	364															
MB	U	00100000	1	365															
MSG	I	000003B8	4	300	197	283													
MSGCMD	C	00000406	9	330	313	314													
MSGMSG	C	0000040F	95	331	307	328	305												
MSGMVC	I	00000400	6	328	311														
MSGOK	I	000003CE	2	309	306														
MSGRET	I	000003EE	4	324	317	320													
MSGSAVE	F	000003F4	4	327	303	324													
NEXTE6	U	000002DC	1	207	227	245													
OPNAME	C	00000008	8	425	269														
PAGE	U	00001000	1	363															
PRT3	C	0000105C	18	399	265	266	267	273	274	275									
PRTI3	C	00001044	1	389	275														
PRTLIN	C	00001008	16	384	391	282													
PRTLNG	U	0000003E	1	391	281														
PRTNAME	C	00001033	8	387	269														
PRTNUM	C	00001018	3	385	267														
R0	U	00000000	1	1426	113	163	166	186	188	189	190	195	214	215	241	242	280		
					281	284	300	303	305	307	309	324							
R1	U	00000001	1	1427	196	222	223	251	252	282	314	328							
R10	U	0000000A	1	1436	151	160	161												
R11	U	0000000B	1	1437	218	219	522	540	558	576	594	612	630	648	666	684	702		
						720	738	756	774	792	810	828	846	864	882	900	918	936	
						954	972	990	1008	1026	1044	1062	1083	1101	1119	1137	1155	1174	
						1192	1210	1228	1246	1264	1282	1300	1318	1336	1354				
R12	U	0000000C	1	1438	205	208	226	244											
R13	U	0000000D	1	1439															
R14	U	0000000E	1	1440															
R15	U	0000000F	1	1441	235	260	287	288											
R2	U	00000002	1	1428	197	263	264	271	272	280	283	284	301	303	309	310	311		
					313	319	324	325											
R3	U	00000003	1	1429															
R4	U	00000004	1	1430															
R5	U	00000005	1	1431	208	209	212	261	286	511	524	529	542	547	560	565	578		
					583	596	601	614	619	632	637	650	655	668	673	686	691		
					704	709	722	727	740	745	758	763	776	781	794	799	812		
					817	830	835	848	853	866	871	884	889	902	907	920	925		



SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES	
REA10	A	000012AC	4	680		
REA11	A	000012DC	4	698		
REA12	A	0000130C	4	716		
REA13	A	0000133C	4	734		
REA14	A	0000136C	4	752		
REA15	A	0000139C	4	770		
REA16	A	000013CC	4	788		
REA17	A	000013FC	4	806		
REA18	A	0000142C	4	824		
REA19	A	0000145C	4	842		
REA2	A	0000112C	4	536		
REA20	A	0000148C	4	860		
REA21	A	000014BC	4	878		
REA22	A	000014EC	4	896		
REA23	A	0000151C	4	914		
REA24	A	0000154C	4	932		
REA25	A	0000157C	4	950		
REA26	A	000015AC	4	968		
REA27	A	000015DC	4	986		
REA28	A	0000160C	4	1004		
REA29	A	0000163C	4	1022		
REA3	A	0000115C	4	554		
REA30	A	0000166C	4	1040		
REA31	A	0000169C	4	1058		
REA32	A	000016CC	4	1079		
REA33	A	000016FC	4	1097		
REA34	A	0000172C	4	1115		
REA35	A	0000175C	4	1133		
REA36	A	0000178C	4	1151		
REA37	A	000017BC	4	1170		
REA38	A	000017EC	4	1188		
REA39	A	0000181C	4	1206		
REA4	A	0000118C	4	572		
REA40	A	0000184C	4	1224		
REA41	A	0000187C	4	1242		
REA42	A	000018AC	4	1260		
REA43	A	000018DC	4	1278		
REA44	A	0000190C	4	1296		
REA45	A	0000193C	4	1314		
REA46	A	0000196C	4	1332		
REA47	A	0000199C	4	1350		
REA5	A	000011BC	4	590		
REA6	A	000011EC	4	608		
REA7	A	0000121C	4	626		
REA8	A	0000124C	4	644		
REA9	A	0000127C	4	662		
READDR	A	00000014	4	427	222	
REG2LOW	U	000000DD	1	368		
REG2PATT	U	AABBCCDD	1	367		
RELEN	A	00000010	4	426		
RPTDWSAV	D	000003A8	8	293	280	284
RPTERROR	I	0000033A	4	260	235	
RPTSAVE	F	0000039C	4	290	260	287
RPTSVR5	F	000003A0	4	291	261	286
SKL0001	U	00000054	1	179	195	
SKT0001	C	0000022A	26	176	179	196

ASMA Ver. 0.7.0 zvector-e6-03-pack (Zvector E6 VSI pack/load)												18 Jun 2024 18:57:08 Page 37								
SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES															
SVOLDPSW	U	00000140	0	115																
T1	A	000010E8	4	512	1368															
T10	A	00001298	4	674	1377															
T11	A	000012C8	4	692	1378															
T12	A	000012F8	4	710	1379															
T13	A	00001328	4	728	1380															
T14	A	00001358	4	746	1381															
T15	A	00001388	4	764	1382															
T16	A	000013B8	4	782	1383															
T17	A	000013E8	4	800	1384															
T18	A	00001418	4	818	1385															
T19	A	00001448	4	836	1386															
T2	A	00001118	4	530	1369															
T20	A	00001478	4	854	1387															
T21	A	000014A8	4	872	1388															
T22	A	000014D8	4	890	1389															
T23	A	00001508	4	908	1390															
T24	A	00001538	4	926	1391															
T25	A	00001568	4	944	1392															
T26	A	00001598	4	962	1393															
T27	A	000015C8	4	980	1394															
T28	A	000015F8	4	998	1395															
T29	A	00001628	4	1016	1396															
T3	A	00001148	4	548	1370															
T30	A	00001658	4	1034	1397															
T31	A	00001688	4	1052	1398															
T32	A	000016B8	4	1073	1399															
T33	A	000016E8	4	1091	1400															
T34	A	00001718	4	1109	1401															
T35	A	00001748	4	1127	1402															
T36	A	00001778	4	1145	1403															
T37	A	000017A8	4	1164	1404															
T38	A	000017D8	4	1182	1405															
T39	A	00001808	4	1200	1406															
T4	A	00001178	4	566	1371															
T40	A	00001838	4	1218	1407															
T41	A	00001868	4	1236	1408															
T42	A	00001898	4	1254	1409															
T43	A	000018C8	4	1272	1410															
T44	A	000018F8	4	1290	1411															
T45	A	00001928	4	1308	1412															
T46	A	00001958	4	1326	1413															
T47	A	00001988	4	1344	1414															
T5	A	000011A8	4	584	1372															
T6	A	000011D8	4	602	1373															
T7	A	00001208	4	620	1374															
T8	A	00001238	4	638	1375															
T9	A	00001268	4	656	1376															
TESTING	F	00001004	4	379	215															
TNUM	H	00000004	2	421	214	263														
TSUB	A	00000000	4	420	218															
TTABLE	F	000019C0	4	1367																
V0	U	00000000	1	1447																
V1	U	00000001	1	1448	217	221	521	539	557	575	593	611	629	647	665	683	701			
					719	737	755	773	791	809	827	845	863	881	899	917	935			
					953	971	989	1007	1025	1043	1061	1082	1100	1118	1136	1154	1173			







DESC	SYMBOL	SIZE	POS	ADDR
------	--------	------	-----	------

**Entry: 0**

Image	IMAGE	6796	0000- 1A8B	0000- 1A8B
Regi on		6796	0000- 1A8B	0000- 1A8B
CSECT	ZVE6TST	6796	0000- 1A8B	0000- 1A8B

STMT	FILE NAME
------	-----------

```
1 /home/tn529/sharedvfp/tests/zvector-e6-03-pack.asm
```

**\*\* NO ERRORS FOUND \*\***