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ASSEMBLER CODE PACKING OF MODULE: loadapp (MAIN\_B)

----- FUNCTION ?L?COM0001 (BEGIN) -----

80000C E4 CLR A

80000D F0 MOVX @DPTR,A

80000E F5B0 MOV P3,A

800010 75B0FF MOV P3,#0FFH

800013 ?L?COM0002:

800013 F5B0 MOV P3,A

800015 75B0FF MOV P3,#0FFH

800018 F5B0 MOV P3,A

80001A 75B0FF MOV P3,#0FFH

80001D 22 RET

----- FUNCTION ?L?COM0001 (END) -------

----- FUNCTION ?L?COM0003 (BEGIN) -----

80001E E4 CLR A

80001F F590 MOV P1,A

800021 7590FF MOV P1,#0FFH

800024 900000 MOV DPTR,#t2\_ind

800027 04 INC A

800028 F0 MOVX @DPTR,A

800029 22 RET

----- FUNCTION ?L?COM0003 (END) -------

80002B 2130 AJMP 0800130H

----- FUNCTION ?L?COM0004 (BEGIN) -----

8000E0 85CACC MOV TL2,RCAP2L

8000E3 85CBCD MOV TH2,RCAP2H

8000E6 D2AD SETB ET2

8000E8 D2CA SETB TR2

8000EA 22 RET

----- FUNCTION ?L?COM0004 (END) -------

----- FUNCTION ?L?COM0005 (BEGIN) -----

8000EB C2AD CLR ET2

8000ED E4 CLR A

8000EE F5C9 MOV T2MOD,A

8000F0 F5C8 MOV T2CON,A

8000F2 22 RET

----- FUNCTION ?L?COM0005 (END) -------

----- FUNCTION main (BEGIN) -----

FILE: 'main\_b.c'

16: main()

17: {

18: int\_off();

19: t2\_ini\_load();

8000F3 312A ACALL int\_off

20: t2\_ind = 0;

8000F5 311F ACALL t2\_ini\_load

21: int\_on();

8000F7 E4 CLR A

8000F8 900000 MOV DPTR,#t2\_ind

8000FB F0 MOVX @DPTR,A

22: P2 = 0xFF;

8000FC 311C ACALL int\_on

23: while(1)

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8000FE 75A0FF MOV P2,#0FFH

800101 ?C0001?MAIN\_B:

24: {

25: if (P2 != 0xFF)

26: {

800101 E5A0 MOV A,P2

800103 F4 CPL A

800104 600B JZ ?C0003?MAIN\_B

27: stsys = 1;

28: main\_app();

800106 900001 MOV DPTR,#stsys

800109 7401 MOV A,#01H

80010B F0 MOVX @DPTR,A

29: }

80010C A512870000 ECALL main\_app

30: if (t2\_ind == 1)

800111 ?C0003?MAIN\_B:

31: {

800111 900000 MOV DPTR,#t2\_ind

800114 E0 MOVX A,@DPTR

800115 B401E9 CJNE A,#01H,?C0001?MAIN\_B

32: t2\_ind = 0;

33: P3 = 0x00;

800118 110C ACALL ?L?COM0001

34: P3 = 0xFF;

35: P3 = 0x00;

36: P3 = 0xFF;

37: P3 = 0x00;

38: P3 = 0xFF;

39: }

40: }

80011A 80E5 SJMP ?C0001?MAIN\_B

----- FUNCTION main (END) -------

----- FUNCTION int\_on (BEGIN) -----

FILE: 'main\_b.c'

63: void int\_on(void) {

64: EA = 1;

65: }

80011C D2AF SETB EA

66:

80011E 22 RET

----- FUNCTION int\_on (END) -------

----- FUNCTION t2\_ini\_load (BEGIN) -----

FILE: 'main\_b.c'

44: void t2\_ini\_load(void)

45: {

46: ET2 = 0;

47: T2MOD = 0x00; //T2 is in 16 bit autoreload mode

80011F 11EB ACALL ?L?COM0005

48: T2CON = 0x00;

49: RCAP2L = 0xFF; //genereating interrupts on 10 ms|22.1184 MHz clock

800121 75CAFF MOV RCAP2L,#0FFH

50: RCAP2H = 0x6f;

800124 75CB6F MOV RCAP2H,#06FH

51: TL2 = RCAP2L;

800127 11E0 ACALL ?L?COM0004

52: TH2 = RCAP2H;

53: ET2 = 1;

54: TR2 = 1; //T2 is on

55: }

800129 22 RET

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----- FUNCTION t2\_ini\_load (END) -------

----- FUNCTION int\_off (BEGIN) -----

FILE: 'main\_b.c'

67: void int\_off(void) {

68: EA = 0;

69: }

80012A C2AF CLR EA

70:

80012C 22 RET

----- FUNCTION int\_off (END) -------

----- FUNCTION t2\_isr\_load (BEGIN) -----

FILE: 'main\_b.c'

57: void t2\_isr\_load(void) {

58: P1 = 0x00; //signal t2 ISR activity (bootloader)

59: P1 = 0xFF;

80012D 111E ACALL ?L?COM0003

60: t2\_ind = 1;

61: }

80012F 22 RET

----- FUNCTION t2\_isr\_load (END) -------

----- FUNCTION timer2 (BEGIN) -----

FILE: 'int.c'

8: void timer2(void) interrupt 5 using 1

800130 C0E0 PUSH ACC

800132 C0F0 PUSH B

800134 C083 PUSH DPH

800136 C082 PUSH DPL

800138 C0D0 PUSH PSW

80013A 75D008 MOV PSW,#08H

9: {

10: TF2 = 0;

80013D C2CF CLR TF2

11: if (stsys == 0)

80013F 900001 MOV DPTR,#stsys

800142 E0 MOVX A,@DPTR

800143 7004 JNZ ?C0001?INT

12: t2\_isr\_load();

800145 312D ACALL t2\_isr\_load

800147 8005 SJMP ?C0003?INT

800149 ?C0001?INT:

13: else

14: t2\_isr\_app();

800149 A512870030 ECALL t2\_isr\_app

15: }

80014E ?C0003?INT:

80014E D0D0 POP PSW

800150 D082 POP DPL

800152 D083 POP DPH

800154 D0F0 POP B

800156 D0E0 POP ACC

800158 32 RETI

----- FUNCTION timer2 (END) -------

----- FUNCTION main\_app (BEGIN) -----

FILE: 'main\_a.c'

16: void main\_app(void)

17: {

18: int\_off();

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19: t2\_ini\_app();

870000 A51280012A ECALL int\_off

20: int\_on();

870005 111F ACALL t2\_ini\_app

21: while(1)

870007 A51280011C ECALL int\_on

87000C ?C0001?MAIN\_A:

22: {

23: if (t2\_ind == 1)

24: {

87000C 900000 MOV DPTR,#t2\_ind

87000F E0 MOVX A,@DPTR

870010 B401F9 CJNE A,#01H,?C0001?MAIN\_A

25: t2\_ind = 0;

26: P3 = 0x00;

870013 A51280000C ECALL ?L?COM0001

27: P3 = 0xFF;

28: P3 = 0x00;

29: P3 = 0xFF;

30: P3 = 0x00;

31: P3 = 0xFF;

32: P3 = 0x00;

870018 A512800013 ECALL ?L?COM0002

33: P3 = 0xFF;

34: P3 = 0x00;

35: P3 = 0xFF;

36: }

37: }

87001D 80ED SJMP ?C0001?MAIN\_A

----- FUNCTION main\_app (END) -------

----- FUNCTION t2\_ini\_app (BEGIN) -----

FILE: 'main\_a.c'

41: void t2\_ini\_app(void)

42: {

43: ET2 = 0;

44: T2MOD = 0x00; //T2 is in 16 bit autoreload mode

87001F A5128000EB ECALL ?L?COM0005

45: T2CON = 0x00;

46: RCAP2L = 0x98; //genereating interrupts on 16 ms|22.1184 MHz clock

870024 75CA98 MOV RCAP2L,#098H

47: RCAP2H = 0x19;

870027 75CB19 MOV RCAP2H,#019H

48: TL2 = RCAP2L;

87002A A5128000E0 ECALL ?L?COM0004

49: TH2 = RCAP2H;

50: ET2 = 1;

51: TR2 = 1; //T2 is on

52: }

87002F 22 RET

----- FUNCTION t2\_ini\_app (END) -------

----- FUNCTION t2\_isr\_app (BEGIN) -----

FILE: 'main\_a.c'

54: void t2\_isr\_app(void)

55: {

56: P1 = 0x00; //signal t2 ISR activity (bootloader)

57: P1 = 0xFF;

870030 A51280001E ECALL ?L?COM0003

58: t2\_ind = 1;

59: }

870035 22 RET

----- FUNCTION t2\_isr\_app (END) -------

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