

% File name = controller_rom.mif %
 % ***** %

DEPTH = 16384; % Address Bus Size %
 WIDTH = 32; % Data Bus Size %

ADDRESS_RADIX = HEX; % Address Format %
 DATA_RADIX = HEX; % Data Format %

CONTENT
 BEGIN

[0..FF] : 05830000; % instruction fetch state 0 %
 [100..103] : 01418000; % TAB %
 [104..107] : 02818000; % TBA %
 [108..10B] : 09818000; % LDAA #data state 1 %
 [200..2FF] : 00818000; % LDAA #data state 2 %
 [10C..10F] : 0D818000; % LDAB #data state 1 %
 [300..3FF] : 01058000; % LDAB #data state 3 %
 [110..113] : 11818000; % LDAA \$addr state 1 %
 [400..4FF] : 15818080; % LDAA \$data state 4 %
 [500..5FF] : 19818040; % LDAA \$data state 5 %
 [600..6FF] : 00810400; % LDAA \$data state 6 %
 [114..117] : 1D818000; % LDAB \$addr state 1 %
 [700..7FF] : 21818080; % LDAB \$data state 7 %
 [800..8FF] : 25818040; % LDAB \$data state 8 %
 [900..9FF] : 01010400; % LDAB \$data state 9 %
 [118..11B] : 29818000; % STAA \$addr state 1 %
 [A00..AFF] : 2D818080; % STAA \$data state A %
 [B00..BFF] : 31818040; % STAA \$data state B %
 [C00..CFF] : 01800400; % STAA \$data state C %
 [11C..11F] : 35818000; % STAB \$addr state 1 %
 [D00..DFF] : 39858080; % STAB \$data state D %
 [E00..EFF] : 3D858040; % STAB \$data state E %
 [F00..FFF] : 01840400; % STAB \$data state F %
 [120..123] : 41818000; % LDX #data state 1 %
 [1000..10FF] : 45818020; % LDX #data state 10 %
 [1100..11FF] : 01818010; % LDX #data state 11 %
 [124..127] : 49818000; % LDY #data state 1 %
 [1200..12FF] : 4D818008; % LDY #data state 12 %
 [1300..13FF] : 01818004; % LDY #data state 13 %
 [128..12B] : 51818000; % LDX \$addr state 1 %
 [1400..14FF] : 55818080; % LDX \$addr state 14 %
 [1500..15FF] : 59818040; % LDX \$addr state 15 %
 [1600..16FF] : 5D814420; % LDX \$addr state 16 %
 [1700..17FF] : 01810410; % LDX \$addr state 17 %

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[12C..12F] : 61818000; % LDY $addr state 1 %
[1800..18FF]: 65818080; % LDY $addr state 18 %
[1900..19FF]: 69818040; % LDY $addr state 19 %
[1A00..1AFF]: 6D814408; % LDY $addr state 1A %
[1B00..1BFF]: 01810404; % LDY $addr state 1B %

[130..133] : 71818000; % LDAA dd,X state 1 %
[1C00..1CFF]: 75818002; % LDAA dd,X state 1C %
[1D00..1DFF]: 00810800; % LDAA dd,X state 1D %

[134..137] : 79818000; % LDAA dd,Y state 1 %
[1E00..1EFF]: 7D818001; % LDAA dd,Y state 1E %
[1F00..1FFF]: 00810C00; % LDAA dd,Y state 1F %

[138..13B] : 81818000; % LDAB dd,X state 1 %
[2000..20FF]: 85818002; % LDAB dd,X state 20 %
[2100..21FF]: 01010800; % LDAB dd,X state 21 %

[13C..13F] : 89818000; % LDAB dd,Y state 1 %
[2200..22FF]: 8D818001; % LDAB dd,Y state 22 %
[2300..23FF]: 01010C00; % LDAB dd,Y state 23 %

[140..143] : 91818000; % STAA dd,X state 1 %
[2400..24FF]: 95818002; % STAA dd,X state 24 %
[2500..25FF]: 01800800; % STAA dd,X state 25 %

[144..147] : 99818000; % STAA dd,Y state 1 %
[2600..26FF]: 9D818001; % STAA dd,Y state 26 %
[2700..27FF]: 01800C00; % STAA dd,Y state 27 %

[148..14B] : A1818000; % STAB dd,X state 1 %
[2800..28FF]: A5858002; % STAB dd,X state 28 %
[2900..29FF]: 01840800; % STAB dd,X state 29 %

[14C..14F] : A9818000; % STAB dd,Y state 1 %
[2A00..2AFF]: AD858001; % STAB dd,Y state 2A %
[2B00..2BFF]: 01840C00; % STAB dd,Y state 2B %

[150..153] : 03898000; % SUM B,A state 1 %
[154..157] : 01C98000; % SUM A,B state 1 %
[158..15B] : 038D8000; % AND B,A state 1 %
[15C..15F] : 01CD8000; % AND A,B state 1 %
[160..163] : 03918000; % OR B,A state 1 %
[164..167] : 01D18000; % OR A,B state 1 %
[168..16B] : 03958000; % COM A state 1 %
[16C..16F] : 01D98000; % COM B state 1 %
[170..173] : 039D8000; % SHFA_L state 1 %
[174..177] : 03A18000; % SHFA_R state 1 %
[178..17B] : 01E58000; % SHFB_L state 1 %
[17C..17F] : 01E98000; % SHFB_R state 1 %

[182..183] : B1818000; % BEQ addr state 1 %
[180..181] : B5818000; % BEQ addr state 1 %
[2C00..2CFF]: 01810200; % BEQ addr state 2C %
[2D00..2DFF]: 01818000; % BEQ addr state 2D %

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[184..185] : B9818000; % BNE addr state 1 %
[186..187] : BD818000; % BNE addr state 1 %
[2E00..2EFF]: 01810200; % BNE addr state 2E %
[2F00..2FFF]: 01818000; % BNE addr state 2F %
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189 : C1818000; % BN addr state 1 %
18B : C1818000; % BN addr state 1 %
188 : C5818000; % BN addr state 1 %
18A : C5818000; % BN addr state 1 %
[3000..30FF]: 01810200; % BN addr state 30 %
[3100..31FF]: 01818000; % BN addr state 31 %
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18C : C9818000; % BP addr state 1 %
18E : C9818000; % BP addr state 1 %
18D : CD818000; % BP addr state 1 %
18F : CD818000; % BP addr state 1 %
[3200..32FF]: 01810200; % BP addr state 32 %
[3300..33FF]: 01818000; % BP addr state 33 %
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[1C0..1C3] : 0181A000; % INX %
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[1C4..1C7] : 01819000; % INY %
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END;
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