SMILEBASIC 4™

Program Modification

For version 4.3.0

We will modify a full-fledged jump action game
with fill-in-the-blank program input method.

The project's Public Key used in this document: 4445KE4D

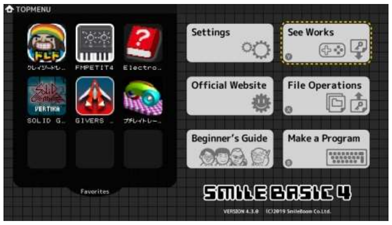
Revised: May 7, 2020 (Font: M+SmileBoom)

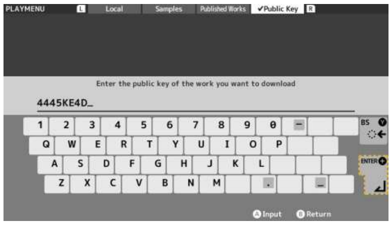
SmileBoom

Preparation

Before using this document to modify the program, you should complete the following preparations.

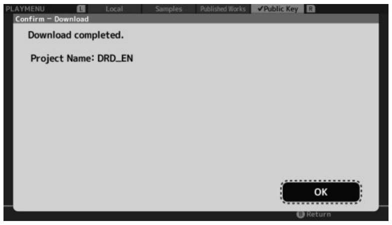
1. Download the template with Public Key : 4445KE4D





Enter the public key of the work you want to download

4445KE4D_



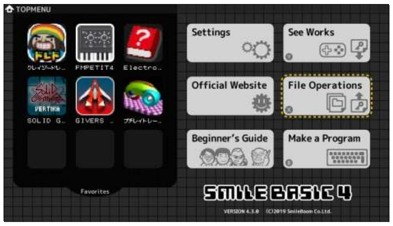
Confirm − Download

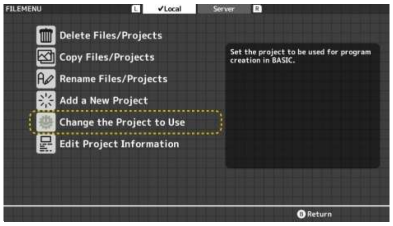
Download completed.

Project Name: DRD_EN

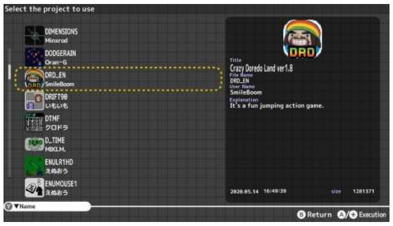
TOPMENU → See Works → Public Key → Download

2. Set the downloaded project to a working project





Set the project to be used for program creation in BASIC.



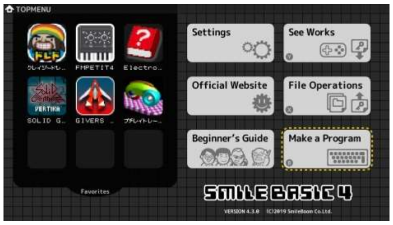
Title
Crazy Doredo Land ver1.8
File Name
DRD_EN
User Name
SmileBoom
Explanation
It's a fun jumping action game.
2020.05.14 16:49:39 size 1281371

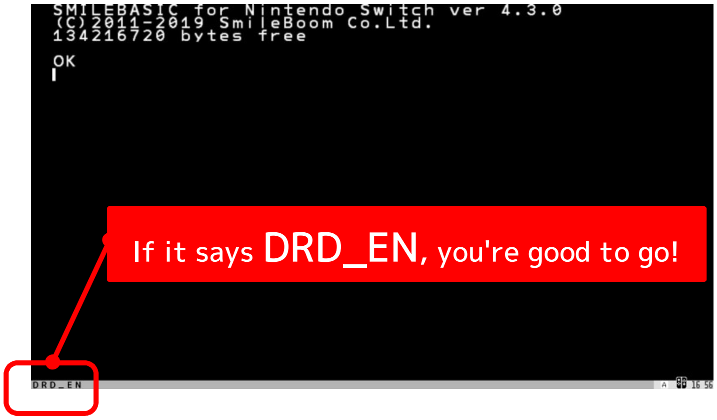
TOPMENU → File Operations → Change the Project to Use → Select DRD_EN

3. Launch BASIC

TOPMENU → Make a Program

Now we're ready to go!





```
SMILEBASIC for Nintendo Switch ver 4.3.0
(C)2011-2019 SmileBoom Co.Ltd.
134216720 bytes free

OK
```

If it says DRD_EN, you're good to go!

Loading a Template (LOAD)

The template for the game has been prepared beforehand, so we'll load this file first. Press the F8 key , and input the following on the Console Display. Then, press the Enter key at the end.

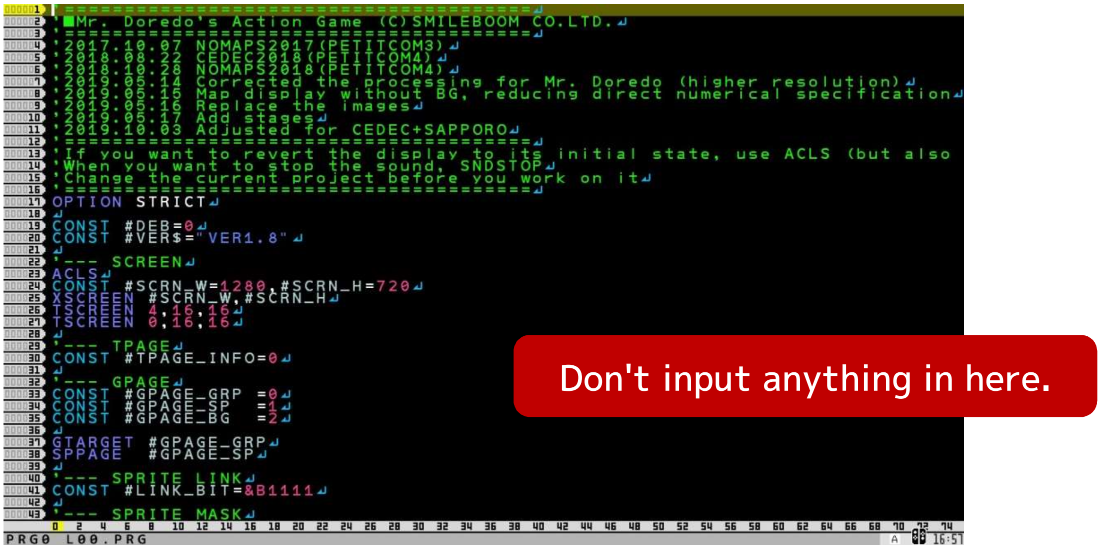
```
NEW
```

Please select "Yes" when the confirmation window appears.

```
LOAD "L00.PRG"
```

The program will now load.

Press the F7 key to open the Edit Mode and look at the program.



```
'=======================================
'Mr. Doredo's Action Game (C)SMILEBOOM CO.LTD.
'=======================================
'2017.10.07 NOMAPS2017(PETITCOM3)
'2018.08.22 CEDEC2018(PETITCOM4)
'2018.10.28 NOMAPS2018(PETITCOM4)
'2019.05.14 Corrected the processing for Mr. Doredo (higher resolution)
'2019.05.15 Map display without BG, reducing direct numerical specification
'2019.05.16 Replace the images
'2019.05.17 Add stages
'2019.10.03 Adjusted for CEDEC+SAPPORO
'=======================================
'If you want to revert the display to its initial state, use ACLS (but also
'When you want to stop the sound, SNDSTOP
'Change the current project before you work on it
'=======================================
OPTION STRICT

CONST #DEB=0
CONST #VER$="VER1.8"

'--- SCREEN
ACLS
CONST #SCRN_W=1280,#SCRN_H=720
XSCREEN #SCRN_W,#SCRN_H
TSCREEN 4,16,16
TSCREEN 0,16,16

'--- TPAGE
CONST #TPAGE_INFO=0

'--- GPAGE
CONST #GPAGE_GRP =0
CONST #GPAGE_SP  =1
CONST #GPAGE_BG  =2

GTARGET #GPAGE_GRP
SPPAGE  #GPAGE_SP

'--- SPRITE LINK
CONST #LINK_BIT=&B1111

'--- SPRITE MASK
```

Don't input anything in here.

If you look it in the Edit Mode, there are a lot of programs lined up.

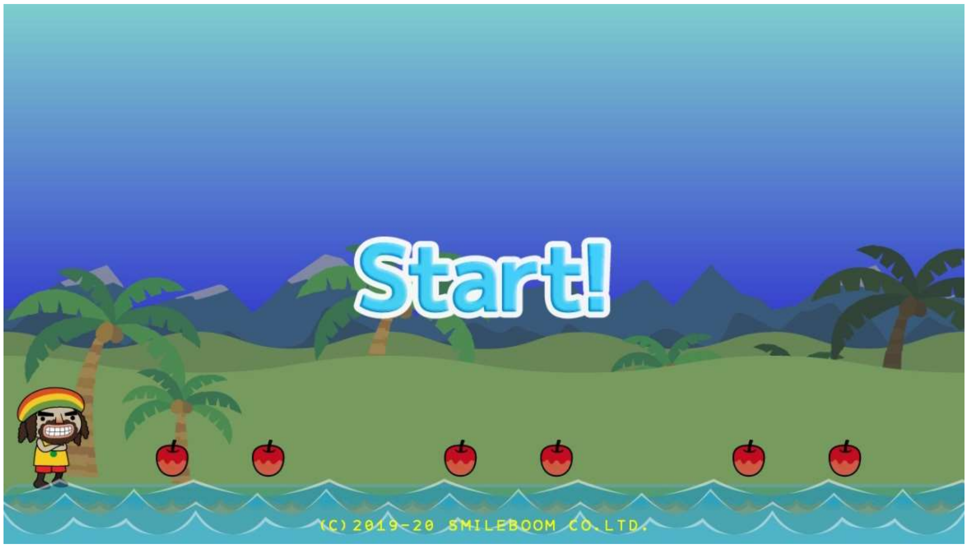
In order to make a game that is playable, the program would have to be over 1000 lines long. It's hard to make this from scratch, so in this document, we will use easy-to-understand method like you just need to type in some parts to move characters.

To avoid the complexity of the explanation, we are going to use an external USB keyboard, but you can also use a software keyboard.

Test Play (can't play yet)

Let's run the template program for this document we just loaded.

This program is a jumping action game in which you have to control "Mr. Doredo" to move to the right to avoid falling into holes. If you touch enemies, he will only take damages and will not die.
Press the F5 key (or the + button) to run the loaded program.



Result: The map and characters are displayed but cannot be operated.

Unfortunately, the program as it is now cannot be played as a game. Let's add programs little by little and modify it, so that "Mr. Doredo" can move around.
Let's get to work!

First, press the F5 key to stop the running program.
When the program stops, press the F7 key (or Ⓧ) to open the Edit Mode.

You will actually input the program from the next page.

Directions for This Document (Search & Add)

Use the search function to find out where to input the program.

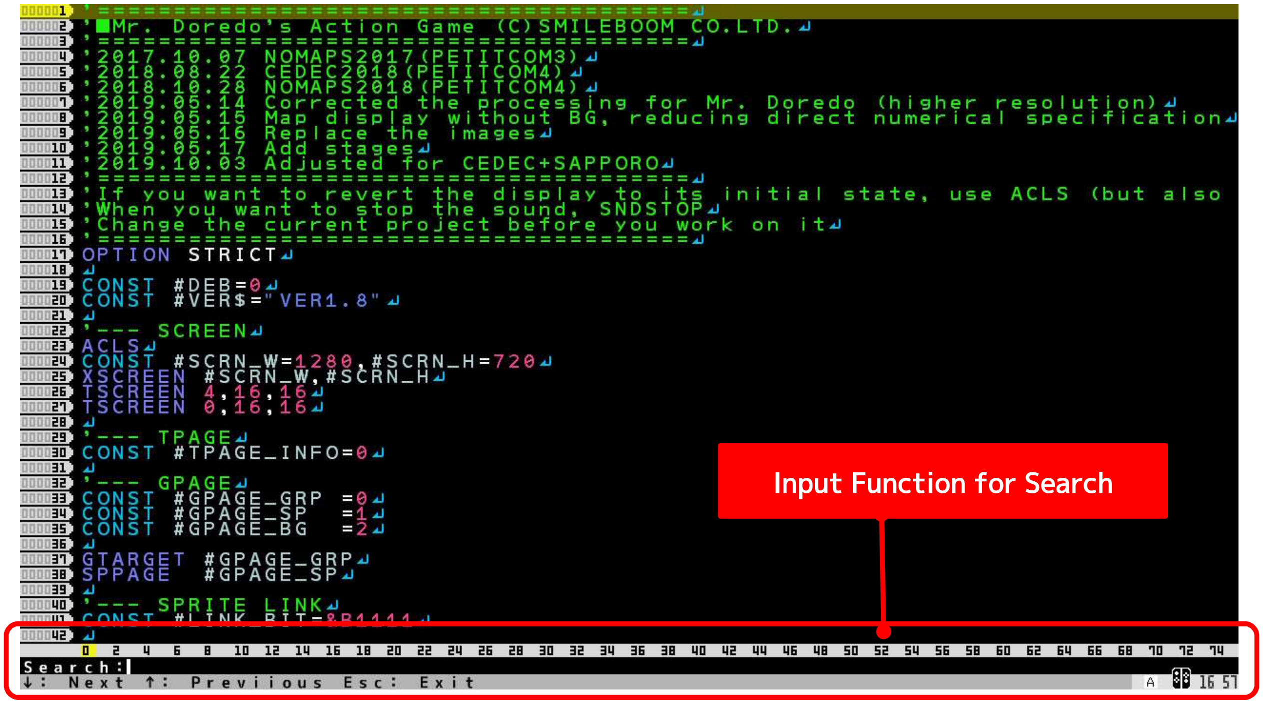
1) Press the search function button F3 key (or 🔍) to input the letters/words you are looking for and press the Enter.

2) Move down with the ↓ arrow key and input the program while looking at the document.

3) After inputting, press the F5 key to run the program (correct any errors).

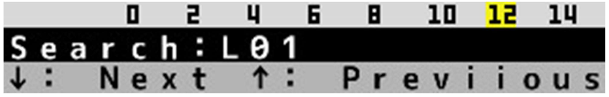
The word to look for is **a number that begins with an L**, such as **L01 :** in the upper left corner of each page in this document.

To search for letters/words or strings, press the F3 key, and the input area will appear at the bottom of the display.



```
'========================================
'■Mr. Doredo's Action Game (C)SMILEBOOM CO.LTD.
'========================================
'2017.10.07 NOMAPS2017(PETITCOM3)
'2018.08.22 CEDEC2018(PETITCOM4)
'2018.10.28 NOMAPS2018(PETITCOM4)
'2019.05.14 Corrected the processing for Mr. Doredo (higher resolution)
'2019.05.15 Map display without BG, reducing direct numerical specification
'2019.05.16 Replace the images
'2019.05.17 Add stages
'2019.10.03 Adjusted for CEDEC+SAPPORO
'========================================
'If you want to revert the display to its initial state, use ACLS (but also
'When you want to stop the sound, SNDSTOP
'Change the current project before you work on it
'========================================
OPTION STRICT

CONST #DEB=0
CONST #VER$="VER1.8"

'--- SCREEN
ACLS
CONST #SCRN_W=1280,#SCRN_H=720
XSCREEN #SCRN_W,#SCRN_H
TSCREEN 4,16,16
TSCREEN 0,16,16

'--- TPAGE
CONST #TPAGE_INFO=0

'--- GPAGE
CONST #GPAGE_GRP =0
CONST #GPAGE_SP  =1
CONST #GPAGE_BG  =2

GTARGET #GPAGE_GRP
SPPAGE  #GPAGE_SP

'--- SPRITE LINK
CONST #LINK_BIT=&B1111

  0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74
Search:
↓: Next ↑: Previious Esc: Exit                                                    A  16 57
```

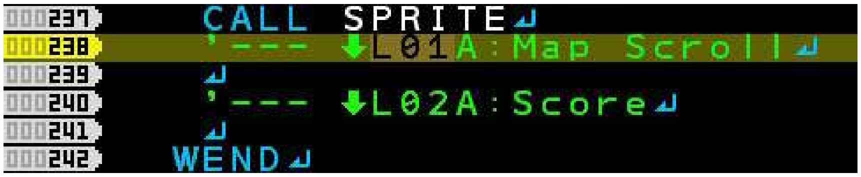
Input Function for Search



```
      0  2  4  6  8  10  12  14
Search:L01
↓: Next ↑: Previious
```

Input the string you want to find and press the Enter key to jump to the line. To exit from the search, press the ESC key.

If you can't find it, try pressing up or down on the arrow keys.



```
      CALL SPRITE
      '--- ⬇L01A:Map Scroll

      '--- ⬇L02A:Score

     WEND
```

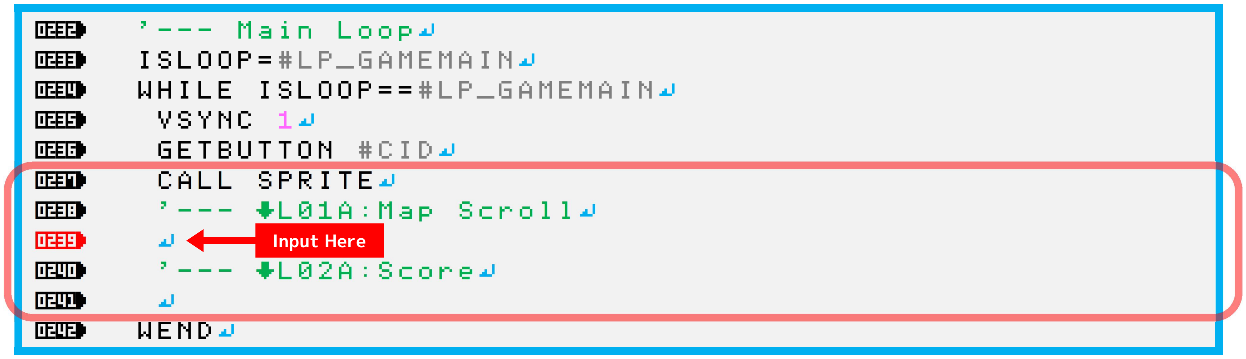
L01 : Scroll the Map

First, we will add a program that scrolls the map when "Mr. Doredo" moves.

◎Find a Place to Make Changes

Press the F3 key to input L01 and press the Enter key to search. (Around line 239)
If you can't find it, try pressing the up or down arrow keys.

＜Before Inputting＞

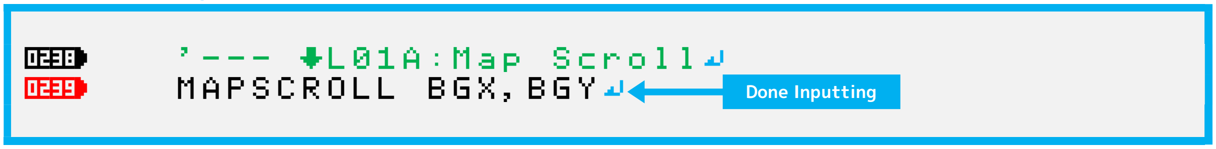


```
0232   '--- Main Loop↲
0233   ISLOOP=#LP_GAMEMAIN↲
0234   WHILE ISLOOP==#LP_GAMEMAIN↲
0235    VSYNC 1↲
0236    GETBUTTON #CID↲
0237    CALL SPRITE↲
0238    '--- ⬇L01A:Map Scroll↲
0239    ↲
0240    '--- ⬇L02A:Score↲
0241    ↲
0242   WEND↲
```

◎Add Text (Around line 239)

We found the line, `'--- ⬇L01A:Map Scroll` and below that there is a red arrow ← Input Here and then input `MAPSCROLL BGX,BGY`

＜After Inputting＞



```
0238     '--- ⬇L01A:Map Scroll↲
0239     MAPSCROLL BGX,BGY↲
```

◎Test Play F5 key

You can run the program, but…

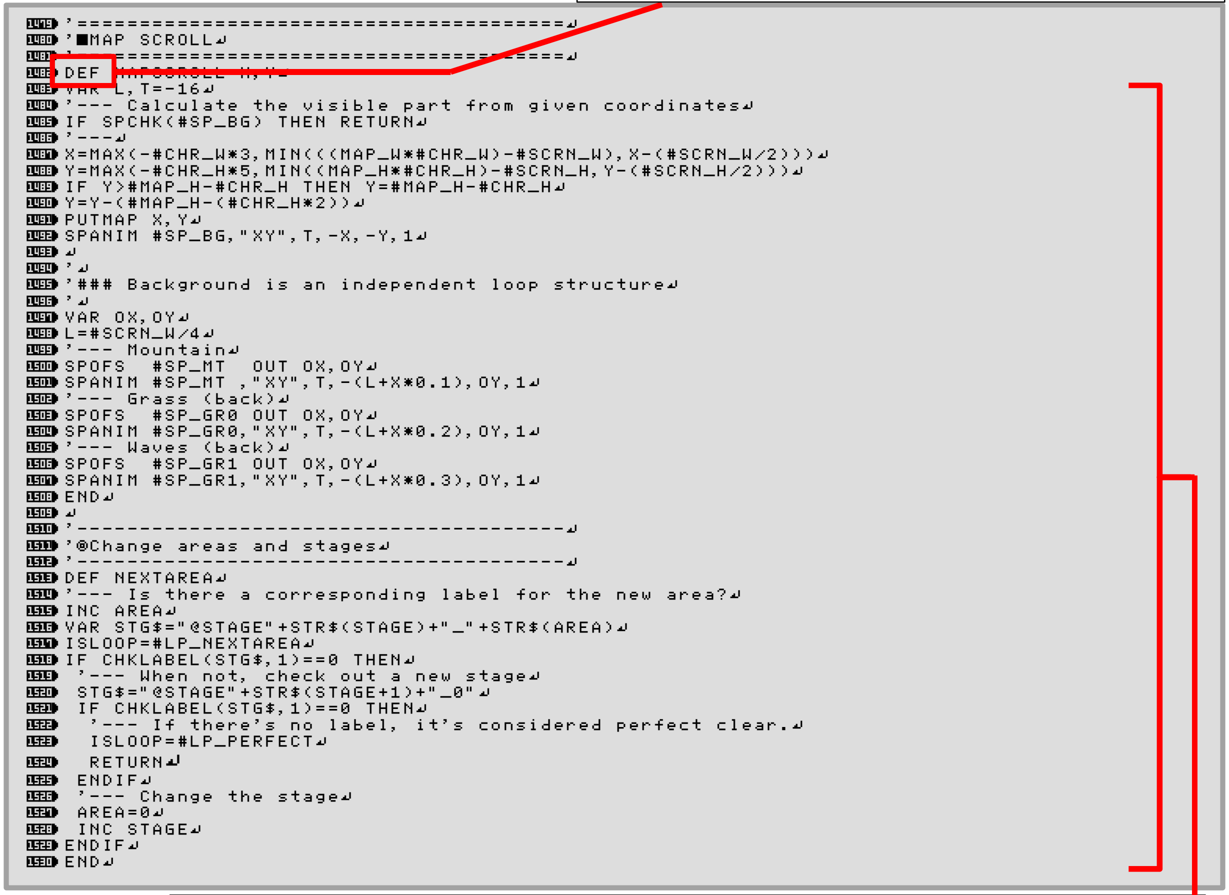
With this addition, the map will not scroll even when the button is pressed.　We'd like you to experience the process of adding a program to make it scroll.　Don't worry too much about it for now and let's move on.　(As the player moves, the scrolling starts.)

◎The key point of this program

We have added MAPSCROLL BGX,BGY in the previous program. That means the map will scroll by the value of "BGX" and "BGY". However, the command MAPSCROLL is not originally available in SmileBASIC 4. MAPSCROLL is a "programmed" command.

Further on in the program, look at lines 1479 to 1530.

Using the DEF command, it declares, "I'm going to create a command named MAPSCROLL."



```
1479 '========================================↵
1480 '■MAP SCROLL↵
1481 '========================================↵
1482 DEF MAPSCROLL X,Y↵
1483 VAR L,T=-16↵
1484 '--- Calculate the visible part from given coordinates↵
1485 IF SPCHK(#SP_BG) THEN RETURN↵
1486 '---↵
1487 X=MAX(-#CHR_W*3,MIN(((MAP_W*#CHR_W)-#SCRN_W),X-(#SCRN_W/2)))↵
1488 Y=MAX(-#CHR_H*5,MIN((MAP_H*#CHR_H)-#SCRN_H,Y-(#SCRN_H/2)))↵
1489 IF Y>#MAP_H-#CHR_H THEN Y=#MAP_H-#CHR_H↵
1490 Y=Y-(#MAP_H-(#CHR_H*2))↵
1491 PUTMAP X,Y↵
1492 SPANIM #SP_BG,"XY",T,-X,-Y,1↵
1493 ↵
1494 '↵
1495 '### Background is an independent loop structure↵
1496 '↵
1497 VAR OX,OY↵
1498 L=#SCRN_W/4↵
1499 '--- Mountain↵
1500 SPOFS  #SP_MT  OUT OX,OY↵
1501 SPANIM #SP_MT ,"XY",T,-(L+X*0.1),OY,1↵
1502 '--- Grass (back)↵
1503 SPOFS  #SP_GR0 OUT OX,OY↵
1504 SPANIM #SP_GR0,"XY",T,-(L+X*0.2),OY,1↵
1505 '--- Waves (back)↵
1506 SPOFS  #SP_GR1 OUT OX,OY↵
1507 SPANIM #SP_GR1,"XY",T,-(L+X*0.3),OY,1↵
1508 END↵
1509 ↵
1510 '----------------------------------------↵
1511 '@Change areas and stages↵
1512 '----------------------------------------↵
1513 DEF NEXTAREA↵
1514 '--- Is there a corresponding label for the new area?↵
1515 INC AREA↵
1516 VAR STG$="@STAGE"+STR$(STAGE)+"_"+STR$(AREA)↵
1517 ISLOOP=#LP_NEXTAREA↵
1518 IF CHKLABEL(STG$,1)==0 THEN↵
1519  '--- When not, check out a new stage↵
1520  STG$="@STAGE"+STR$(STAGE+1)+"_0"↵
1521  IF CHKLABEL(STG$,1)==0 THEN↵
1522   '--- If there's no label, it's considered perfect clear.↵
1523   ISLOOP=#LP_PERFECT↵
1524   RETURN↵
1525  ENDIF↵
1526  '--- Change the stage↵
1527  AREA=0↵
1528  INC STAGE↵
1529 ENDIF↵
1530 END↵
```

This is the contents of the "MAPSCROLL" command.
If you see "MAPSCROLL" in the program, the computer will use the specified X and Y values to execute what is written here.

"Scrolling the map" is a process you may use many times in your program. If you write the same content every time you use it, your program will get longer and longer. This is why we create a "MAPSCROLL" command and use it in the program.

When this document says "add a program", it means to add a "command" = "a series of programs" created using "DEF" in the program.

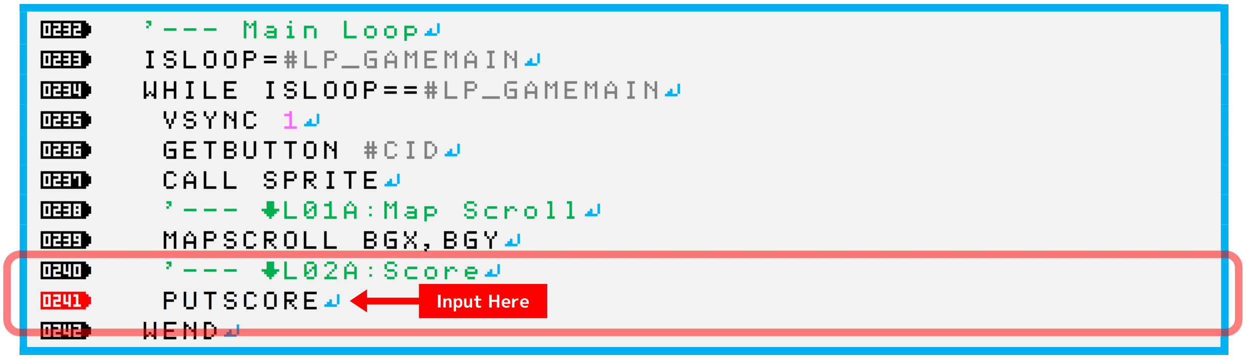
L02 ：Display the Score

Next, we will add a calling program to display the score.

Let’s find L02 with F3 key and input on this line ← Input Here . (Around line 241)

Below the searched line `’---□⬇L02A:Score`, input `PUTSCORE`

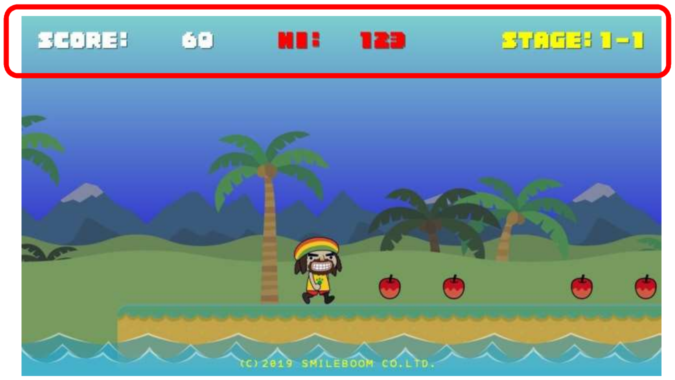
＜After Inputting＞



```
0232    ’--- Main Loop↵
0233    ISLOOP=#LP_GAMEMAIN↵
0234    WHILE ISLOOP==#LP_GAMEMAIN↵
0235     VSYNC 1↵
0236     GETBUTTON #CID↵
0237     CALL SPRITE↵
0238     ’--- ⬇L01A:Map Scroll↵
0239     MAPSCROLL BGX,BGY↵
0240     ’--- ⬇L02A:Score↵
0241     PUTSCORE↵ ← Input Here
0242    WEND↵
```

◎Test Play F5 key

When it’s executed, the score and other data were shown on the top display.
It looks a little more like a game now.



We will do the same for the rest of the process, adding more programs and repeating the test play.

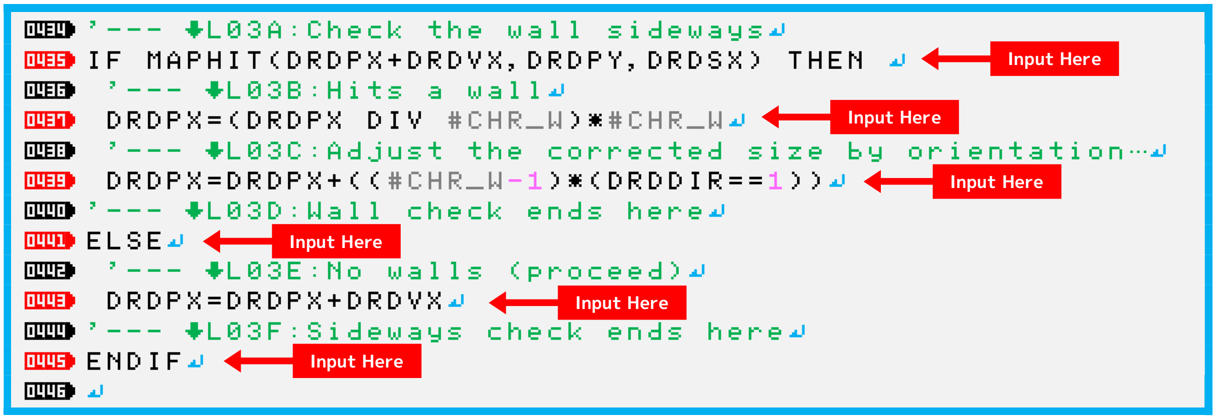
SC	Score
HI	High-Score
SCADD	Value to be added to the score

※This table in the document describes the meaning of the "variables" used in the added program (in this chapter, PUTSCORE) and hints for reading the program.

L03 ：Walk Left and Right with the Left Stick

Now, we are going to add a program to move "Mr. Doredo".

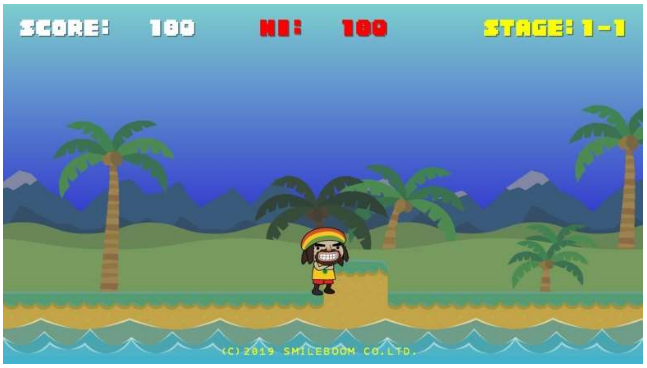
Let’s find **L03** with **F3 key** and input on this line ← **Input Here** . (Around line 434)



```
0434 '--- ⬇L03A:Check the wall sideways
0435 IF MAPHIT(DRDPX+DRDVX,DRDPY,DRDSX) THEN   ← Input Here
0436  '--- ⬇L03B:Hits a wall
0437  DRDPX=(DRDPX DIV #CHR_W)*#CHR_W   ← Input Here
0438  '--- ⬇L03C:Adjust the corrected size by orientation…
0439  DRDPX=DRDPX+((#CHR_W-1)*(DRDDIR==1))   ← Input Here
0440 '--- ⬇L03D:Wall check ends here
0441 ELSE   ← Input Here
0442  '--- ⬇L03E:No walls (proceed)
0443  DRDPX=DRDPX+DRDVX   ← Input Here
0444 '--- ⬇L03F:Sideways check ends here
0445 ENDIF   ← Input Here
0446 
```

◎Test Play F5 key

When it's executed, you can move "Mr. Doredo" left and right with the left stick, and scrolling occurs when he gets closer to the edge of the display.



- The apples are visible,
  but he can't get them.
- He can' t get over the obstacles.

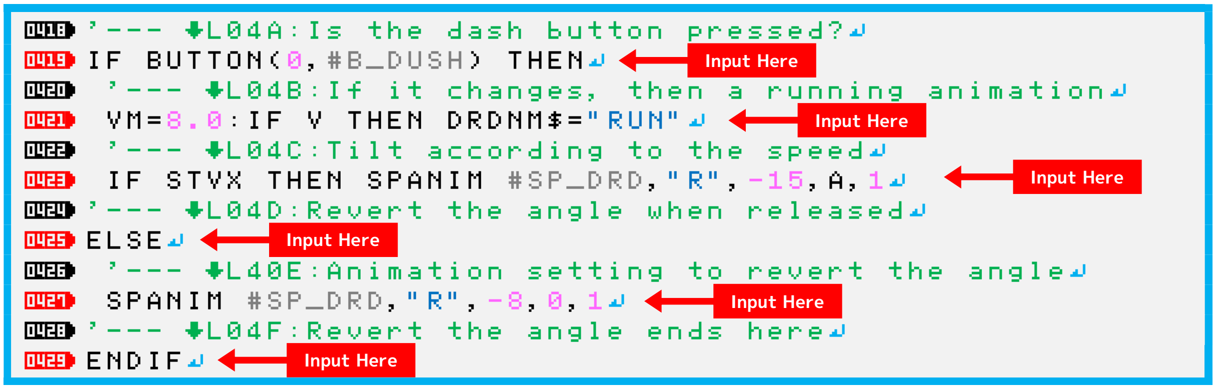
It seems that he cannot get over the raised floor without a jump.

DRDPX, DRDPY	**Mr. Doredo's coordinates**
DRDVX, DRDVY	**Mr. Doredo's movement amount**
DRDDIR	**Mr. Doredo's direction (1 = right, -1 = left)**
BGSW	**1 = He's arrived at the far right of the map**
MAPHIT	**Check the state of the map such as his steps or walls**
Hint	**In line 443, where you add DRDVX to DRDPX, if you specify DRDVX*0.5, his moving speed will be halved and DRDVX*2.0 will be doubled!**

L04 ：Y Button to Accelerate

We will add a program that "Mr. Doredo" will dash when the Y button is pressed.

Let’s find L04 with F3 key and input on this line ← Input Here . (Around line 418)
If you can't find it in search, press the up arrow to find another location.



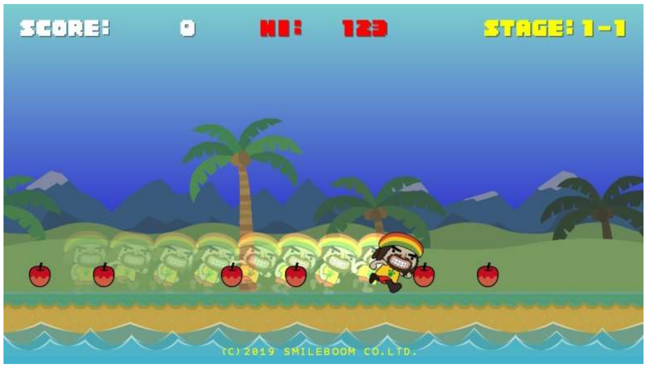
```
0418 '--- ↓L04A:Is the dash button pressed?↵
0419 IF BUTTON(0,#B_DUSH) THEN↵
0420  '--- ↓L04B:If it changes, then a running animation↵
0421  VM=8.0:IF V THEN DRDNM$="RUN"↵
0422  '--- ↓L04C:Tilt according to the speed↵
0423  IF STVX THEN SPANIM #SP_DRD,"R",-15,A,1↵
0424 '--- ↓L04D:Revert the angle when released↵
0425 ELSE↵
0426  '--- ↓L40E:Animation setting to revert the angle↵
0427  SPANIM #SP_DRD,"R",-8,0,1↵
0428 '--- ↓L04F:Revert the angle ends here↵
0429 ENDIF↵
```

◎Test Play F5 key

If you operate the stick while pushing the Y button, "Mr. Doredo" will run while leaning.

Now he can move faster.

But, he can't take the apples yet.

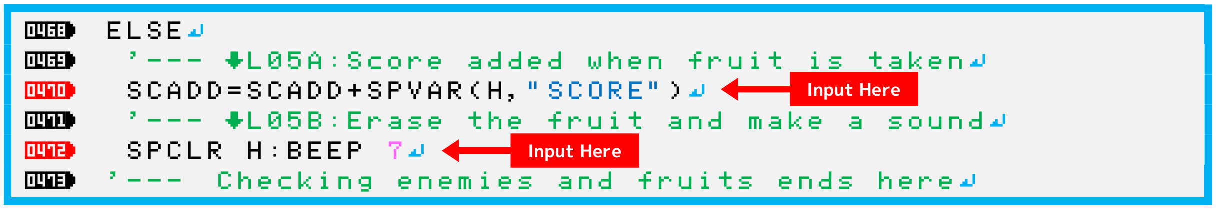


BUTTON	Get a button information
DRDNM$	Mr. Doredo's animation name
STVX	Amount of change in left and right on the stick (±1.0)
#SP_DRD	Mr. Doredo's sprite control number.
SPANIM	Sprite's animation setting command
Hint	The initial value of VM and A

L05 : Take Fruits and Boost up the Score

We will add a program to check the collision detection when "Mr. Doredo" touches a fruit or an enemy.

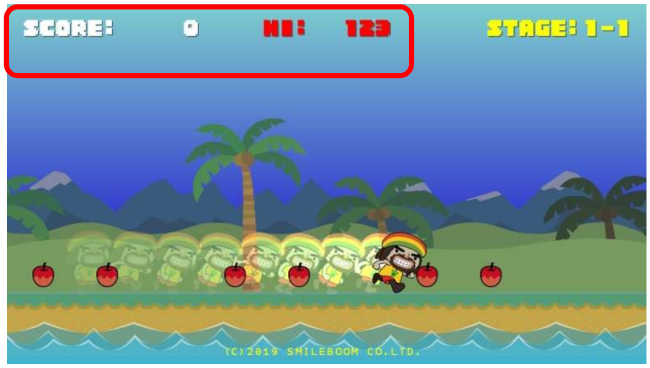
Let's find **L05** with **F3 key** and input on this line ← Input Here. (Around line 468)



```
0468 ELSE↵
0469  '--- ⬇L05A:Score added when fruit is taken↵
0470  SCADD=SCADD+SPVAR(H,"SCORE")↵
0471  '--- ⬇L05B:Erase the fruit and make a sound↵
0472  SPCLR H:BEEP 7↵
0473 '--- Checking enemies and fruits ends here↵
```

◎Test Play F5 key

After you run it and move "Mr. Doredo", when he touches an apple, the apple disappears and the score will be added.

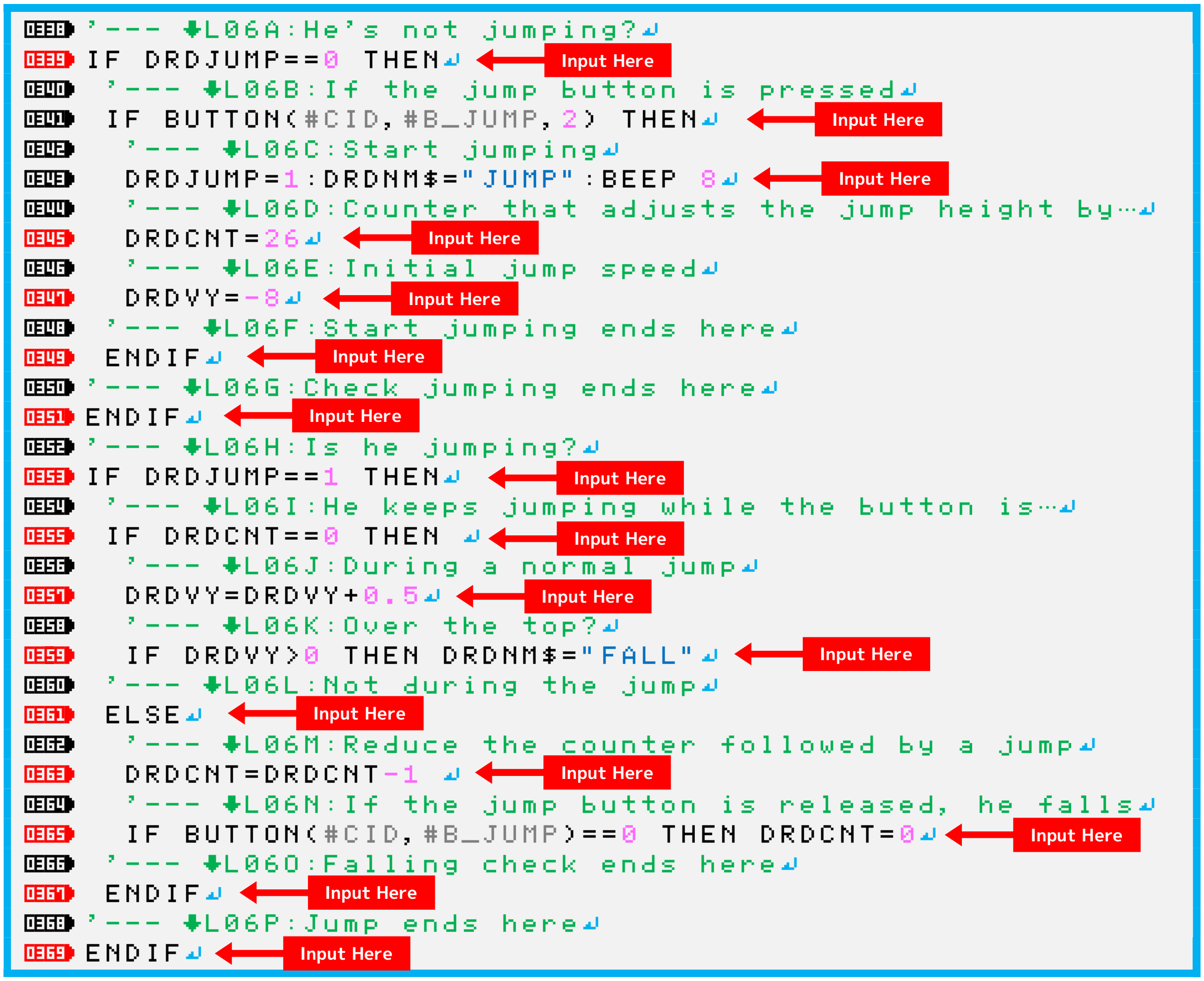


DRDDMG	Stopping time when receiving damage
DRDOLD$	Mr. Doredo's animation name that was set immediately before
SPHITSP	Collision detection between sprites
SPVAR()	Command to get the sprite's internal variables
OBJDEAD	Delete objects generated from the map
SPCLR	Delete sprites
BEEP	Play a sound effect

L06 : B Button to Jump

We will add a program that makes "Mr. Doredo" jump when B button is pressed.

Let's find L06 with F3 key and input on this line ← Input Here. (Around line 338)



```
0338 '--- ⬇L06A:He's not jumping?↵
0339 IF DRDJUMP==0 THEN↵
0340  '--- ⬇L06B:If the jump button is pressed↵
0341  IF BUTTON(#CID,#B_JUMP,2) THEN↵
0342   '--- ⬇L06C:Start jumping↵
0343   DRDJUMP=1:DRDNM$="JUMP":BEEP 8↵
0344   '--- ⬇L06D:Counter that adjusts the jump height by…↵
0345   DRDCNT=26↵
0346   '--- ⬇L06E:Initial jump speed↵
0347   DRDVY=-8↵
0348  '--- ⬇L06F:Start jumping ends here↵
0349  ENDIF↵
0350 '--- ⬇L06G:Check jumping ends here↵
0351 ENDIF↵
0352 '--- ⬇L06H:Is he jumping?↵
0353 IF DRDJUMP==1 THEN↵
0354  '--- ⬇L06I:He keeps jumping while the button is…↵
0355  IF DRDCNT==0 THEN ↵
0356   '--- ⬇L06J:During a normal jump↵
0357   DRDVY=DRDVY+0.5↵
0358   '--- ⬇L06K:Over the top?↵
0359   IF DRDVY>0 THEN DRDNM$="FALL"↵
0360  '--- ⬇L06L:Not during the jump↵
0361  ELSE↵
0362   '--- ⬇L06M:Reduce the counter followed by a jump↵
0363   DRDCNT=DRDCNT-1 ↵
0364   '--- ⬇L06N:If the jump button is released, he falls↵
0365   IF BUTTON(#CID,#B_JUMP)==0 THEN DRDCNT=0↵
0366  '--- ⬇L06O:Falling check ends here↵
0367  ENDIF↵
0368 '--- ⬇L06P:Jump ends here↵
0369 ENDIF↵
```

◎Test Play F5 key

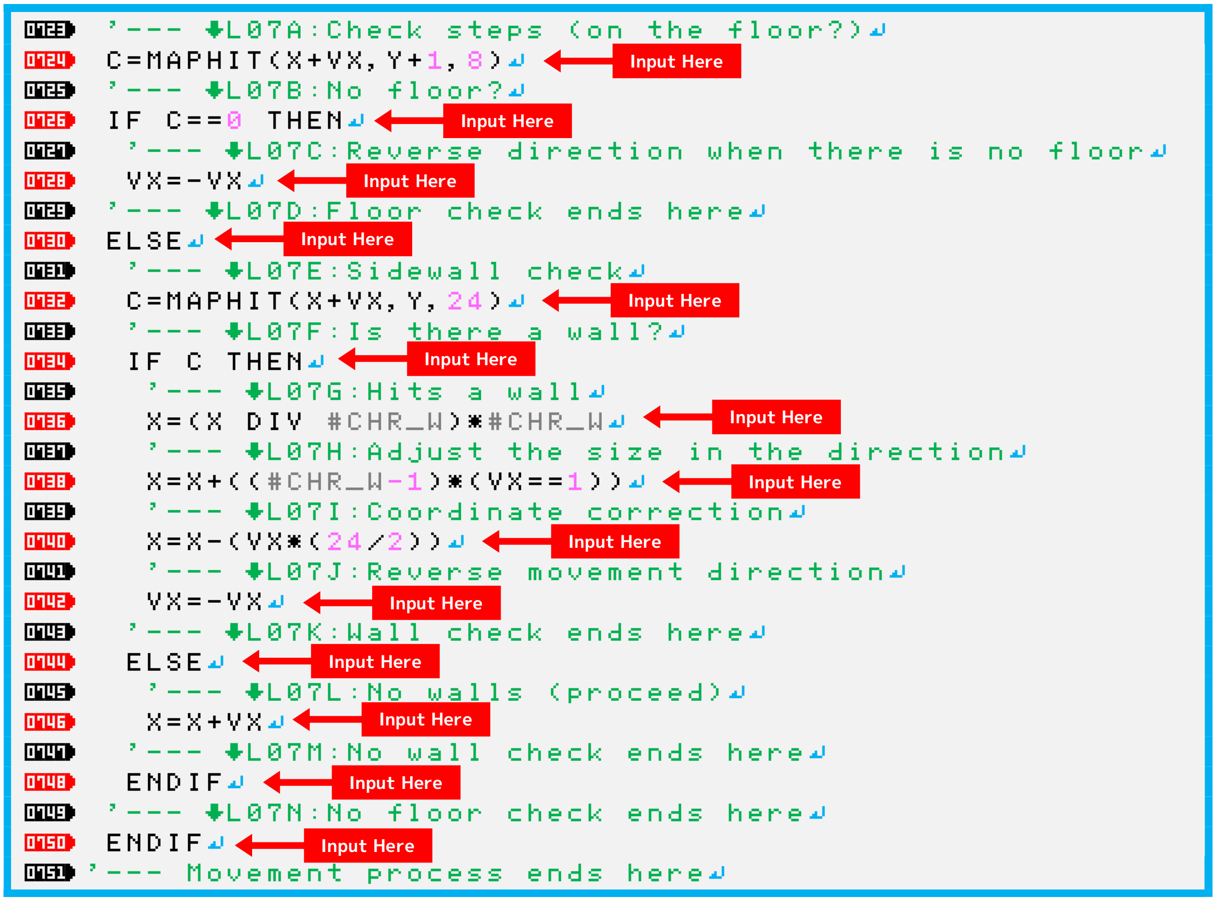
Press B to jump. The height changes with the time you hold down the button, and you can use the Y button to accelerate and jump to increase his flying distance.

DRDJUMP	0 = before jump, 1 = during jump
DRDCNT	Counter that adjusts the height by the pressing time of the button
DRDSTOP	Mr. Doredo forced stop
Hint 1	The initial values of DRDCNT and DRDVY
Hint 2	Additional value during DRDVY jump

L07 : Move Crabs

We will add a movement program for one of the enemies, "Crab".

Let's find L07 with F3 key and input on this line ← Input Here . (Around line 723)



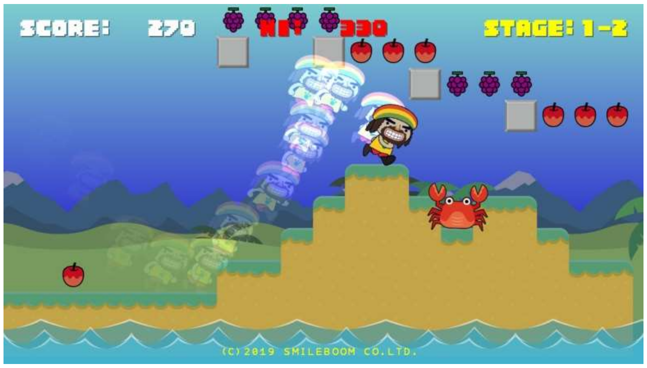
```
0723 '--- ⬇L07A:Check steps (on the floor?)↵
0724 C=MAPHIT(X+VX,Y+1,8)↵
0725 '--- ⬇L07B:No floor?↵
0726 IF C==0 THEN↵
0727  '--- ⬇L07C:Reverse direction when there is no floor↵
0728  VX=-VX↵
0729 '--- ⬇L07D:Floor check ends here↵
0730 ELSE↵
0731  '--- ⬇L07E:Sidewall check↵
0732  C=MAPHIT(X+VX,Y,24)↵
0733  '--- ⬇L07F:Is there a wall?↵
0734  IF C THEN↵
0735   '--- ⬇L07G:Hits a wall↵
0736   X=(X DIV #CHR_W)*#CHR_W↵
0737   '--- ⬇L07H:Adjust the size in the direction↵
0738   X=X+((#CHR_W-1)*(VX==1))↵
0739   '--- ⬇L07I:Coordinate correction↵
0740   X=X-(VX*(24/2))↵
0741   '--- ⬇L07J:Reverse movement direction↵
0742   VX=-VX↵
0743  '--- ⬇L07K:Wall check ends here↵
0744  ELSE↵
0745   '--- ⬇L07L:No walls (proceed)↵
0746   X=X+VX↵
0747  '--- ⬇L07M:No wall check ends here↵
0748  ENDIF↵
0749 '--- ⬇L07N:No floor check ends here↵
0750 ENDIF↵
0751 '--- Movement process ends here↵
```

◎Test Play F5 key

A crab should be moving left and right...

But, there is no crab!

When you want to show crabs, look at the next page and place the crabs on the map.



X,Y	Coordinate management
C	Map information
VX	Horizontal movement amount

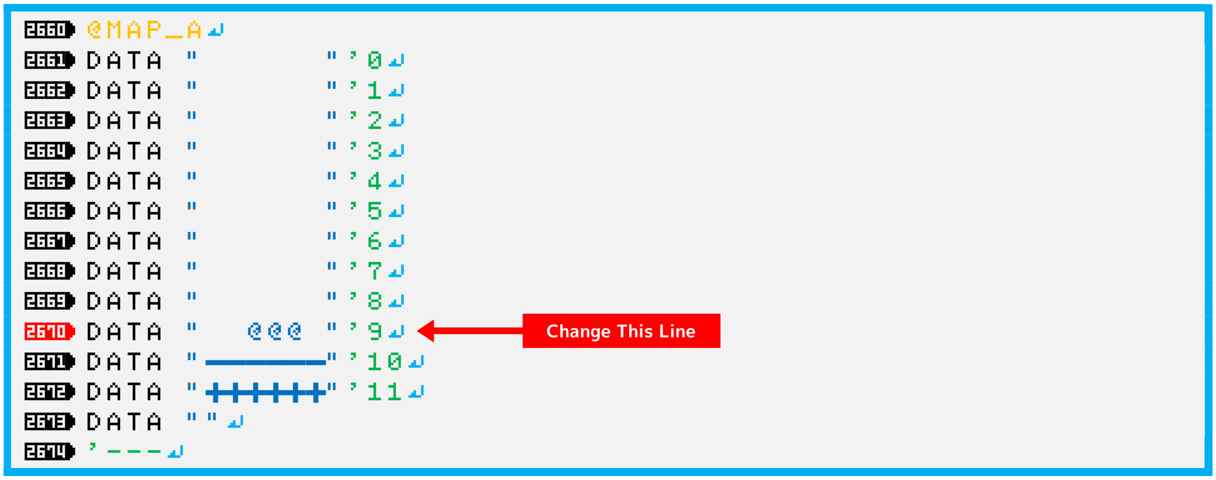
L08 ：Place Fruit s and Enemies as Map Parts

Let’s find L08 with F3 key.

Doredo Land's map is made up of vertically thin maps (these are called map parts) lined up to create a long map. The map parts can be prepared from A to Z, and they can be extended horizontally, although they can only have 12 levels of height. It's made with a combination of letters and symbols, so you can change the shape of the ground and adjust the placement of enemies and items.

Wall Symbols:	┏ ┳ ┓ ┃ ━ ┣ ╋ ┫ ┗ ┻ ┛ ▦ (Metal plate)
Enemies & Fruits:	K (Crab) S (Skunk) ＊ (Chestnut) ＠ (Apple) & (Grape)

Try adding some symbols to the map parts, like the following.
If you use the INS key to input in overwrite mode, the string will not be shifted.



```
@MAP_A
DATA "      "'0
DATA "      "'1
DATA "      "'2
DATA "      "'3
DATA "      "'4
DATA "      "'5
DATA "      "'6
DATA "      "'7
DATA "      "'8
DATA "  @@@ "'9
DATA "━━━━━━"'10
DATA "╋╋╋╋╋╋"'11
DATA ""
'---
```

※This is just for example, so feel free to put whatever you want.

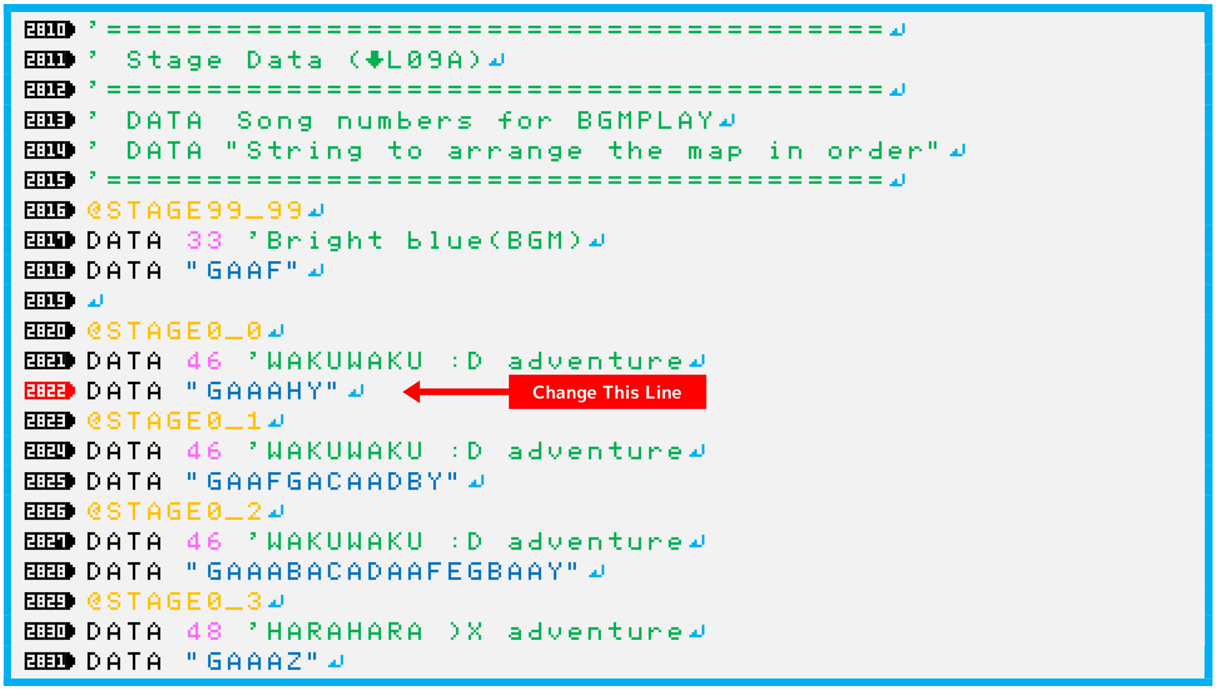
◎Test Play F5 key

When you run it, you will see the enemies and fruits you have placed on the map. If you place "MapPart Z" at the end of the map, you can enjoy fighting a boss who doesn't seem to have much motivation.

L09 ：Change the Map Length

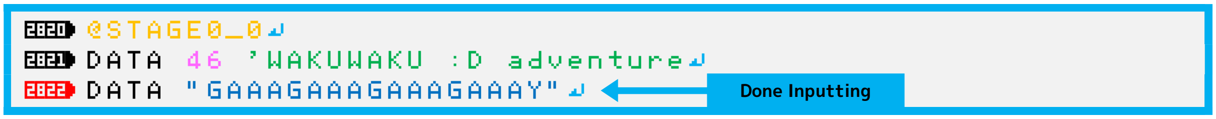
Let’s find L09 with F3 key.

L09 and later are the data to place L08 modified map parts. If you want to adjust the length of the map for each stage, please change this data.



```
2810 '=======================================↵
2811 ' Stage Data (⬇L09A)↵
2812 '=======================================↵
2813 ' DATA Song numbers for BGMPLAY↵
2814 ' DATA "String to arrange the map in order"↵
2815 '=======================================↵
2816 @STAGE99_99↵
2817 DATA 33 'Bright blue(BGM)↵
2818 DATA "GAAF"↵
2819 ↵
2820 @STAGE0_0↵
2821 DATA 46 'WAKUWAKU :D adventure↵
2822 DATA "GAAAHY"↵
2823 @STAGE0_1↵
2824 DATA 46 'WAKUWAKU :D adventure↵
2825 DATA "GAAFGACAADBY"↵
2826 @STAGE0_2↵
2827 DATA 46 'WAKUWAKU :D adventure↵
2828 DATA "GAAABACADAAFEGBAAY"↵
2829 @STAGE0_3↵
2830 DATA 48 'HARAHARA )X adventure↵
2831 DATA "GAAAZ"↵
```

◎Increase the Map Length of Stage 1



```
2820 @STAGE0_0↵
2821 DATA 46 'WAKUWAKU :D adventure↵
2822 DATA "GAAAGAAAGAAAGAAAY"↵
```

DATA "GAAAY" on line 2822 is the part where the map parts are lined up. The map parts can be registered from A to Z, so you can make the map longer by arranging the registered alphabets. A letter that does not exist will result in an error.

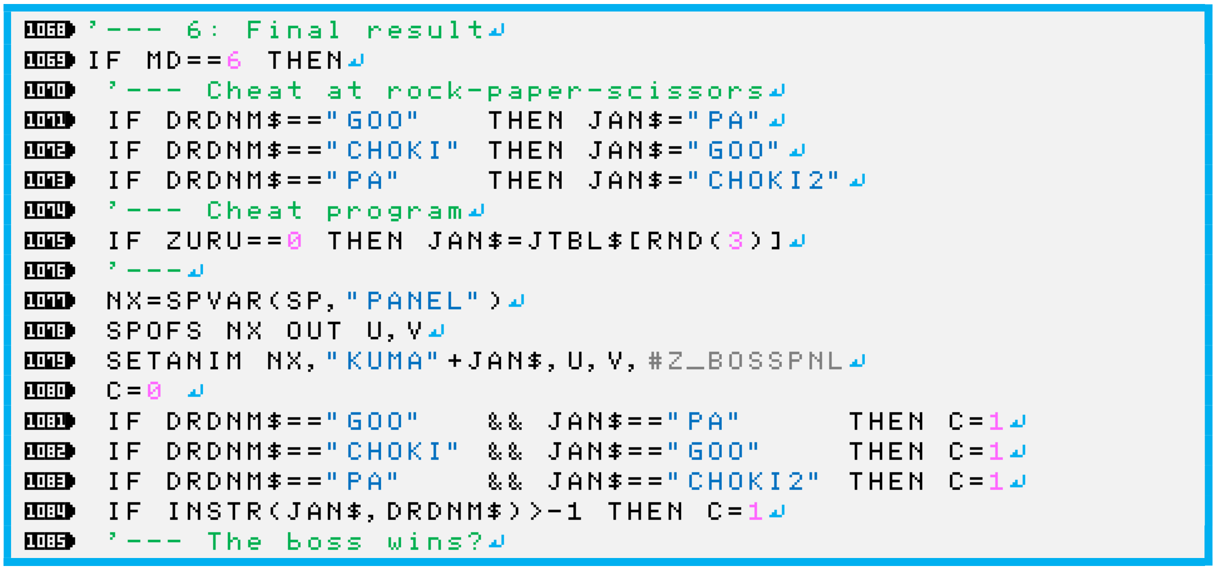
If we input DATA "GAAAGAAAGAAAGAAAY", then the first map will change to a map that is about four times longer.

Tips for further modification!

You are now done inputting the program. This is where we get into the tuning to make the game different from the others. Here are a few tips for modifications.

◎Isn't it a bug that the boss always wins?

To see how you can win, check out the program. Is there anything suspicious?



```
'--- 6: Final result
IF MD==6 THEN
 '--- Cheat at rock-paper-scissors
 IF DRDNM$=="GOO"   THEN JAN$="PA"
 IF DRDNM$=="CHOKI" THEN JAN$="GOO"
 IF DRDNM$=="PA"    THEN JAN$="CHOKI2"
 '--- Cheat program
 IF ZURU==0 THEN JAN$=JTBL$[RND(3)]
 '---
 NX=SPVAR(SP,"PANEL")
 SPOFS NX OUT U,V
 SETANIM NX,"KUMA"+JAN$,U,V,#Z_BOSSPNL
 C=0 
 IF DRDNM$=="GOO"   && JAN$=="PA"     THEN C=1
 IF DRDNM$=="CHOKI" && JAN$=="GOO"    THEN C=1
 IF DRDNM$=="PA"    && JAN$=="CHOKI2" THEN C=1
 IF INSTR(JAN$,DRDNM$)>-1 THEN C=1
 '--- The boss wins?
```

◎I want him to be a superman who is beyond common sense.

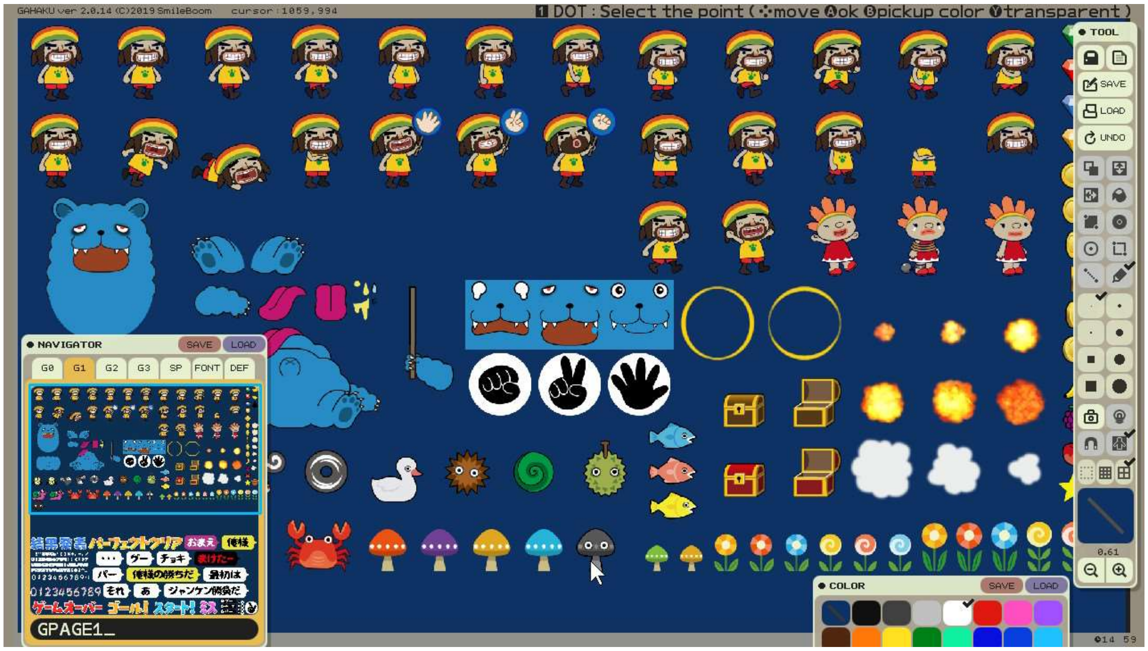
You can change his jump height, running speed, the way he leans when he runs... If you change this area, you can create a hard to operate character which keeps falling down because his speed is too fast. When we were writing the movement and jump programs, we saw a lot of different numbers. What would happen if you make those numbers in that area larger or smaller...?

◎I want to change the sound effects and background music.

The sound effect is generated by the command "BEEP". The music is played under the command BGMPLAY. It's easy to find out where it's being used with a search.
Press the F9 key to start the software to check the sound effects and music numbers built into SmileBASIC. Let's use this to find a sound you like.

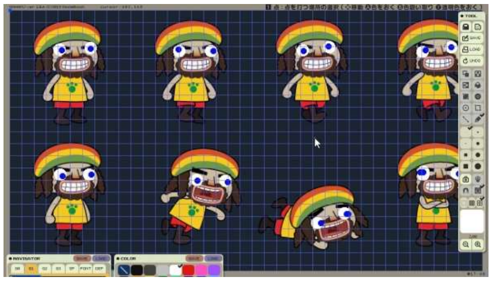
Use GAHAKU to Modify Images

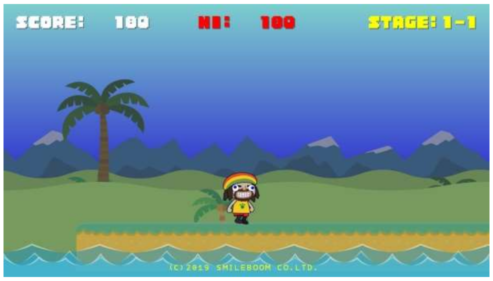
Pressing the **F10 key** while running Crazy Doredo Land will start the drawing tool "GAHAKU" built into SmileBASIC.　This tool allows you to directly rewrite the images used in the current game.　(It’s operated with mouse)


GAHAKU ver 2.0.14 (C)2019 SmileBoom　cursor:1059,994
DOT : Select the point (✣move Ⓐok Ⓑpickup color Ⓨtransparent)
TOOL
SAVE
LOAD
UNDO
NAVIGATOR
SAVE
LOAD
G0
G1
G2
G3
SP
FONT
DEF
GPAGE1_
COLOR
SAVE
LOAD

1)　Switching between the G1 and G2 tabs of the NAVIGATOR window to draw images.
2)　Once the image is drawn, switch the tabs of G1 or G2 as well (the image will be updated by switching).
3)　Use the SAVE button to save the files without renaming them (if you draw both, save each one).
4)　Press CTRL+C (or the + button) to force quit GAHAKU.
5)　Back to Doredo Land (this should reflect what you drew...)

Once you save the images, you can enjoy Doredo Land with the SAVED images.





This is the end of this document.
Let's keep on modifying and create interesting games that are full of originality!

Have fun with programming!

Thank you for choosing SmileBASIC.