

SAGA_VIDEO_MODE register



Overview

Change the current SAGA Video Mode, including PixelFormat and DoubleScan flags.

Name

- SAGA_VIDEO_MODE

Address

- 0xDFF1F4

Access

- Write-Only

Size

- 16-bits
-

Description

A valid SAGA Video Mode value is an addition of:

- **Low byte:** SAGA_VIDEO_FORMAT
- **High byte:** SAGA_VIDEO_DBLSCAN

Low byte: SAGA_VIDEO_FORMAT

This enumeration is used to describe the PixelFormat of the Video.

Name	Value	BytesPerPixel	Description
SAGA_VIDEO_FORMAT_OFF	0x00	_	Chunky-DMA Off
SAGA_VIDEO_FORMAT_CLUT8	0x01	1	CLUT8
SAGA_VIDEO_FORMAT_RGB16	0x02	2	R5 G6 B5
SAGA_VIDEO_FORMAT_RGB15	0x03	2	- R5 G5 B5
SAGA_VIDEO_FORMAT_RGB24	0x04	3	R8 G8 B8
SAGA_VIDEO_FORMAT_RGB32	0x05	4	- R8 G8 B8
SAGA_VIDEO_FORMAT_YUV422	0x06	2	Y4 U2 V2

High byte: SAGA_VIDEO_DBLSCAN

This enumeration is used to describe the DoubleScan flag of the Video.

Name	Value	Description
SAGA_VIDEO_DBLSCAN_OFF	0x00	Normal Display
SAGA_VIDEO_DBLSCAN_X	0x01	Double output each X-Pixel (X-DoubleScan)
SAGA_VIDEO_DBLSCAN_Y	0x02	Double output each Row (Y-DoubleScan)
SAGA_VIDEO_DBLSCAN_XY	0x03	Double output (XY-DoubleScan)

Examples

Example in C:

```
#define SAGA_VIDEO_MODE 0x00DFF1F4

#define SAGA_VIDEO_FORMAT_OFF    0
#define SAGA_VIDEO_FORMAT_CLUT8  1
#define SAGA_VIDEO_FORMAT_RGB16  2 //   R5 | G6 | B5
#define SAGA_VIDEO_FORMAT_RGB15  3 // - | R5 | G5 | B5
#define SAGA_VIDEO_FORMAT_RGB24  4 //   R8 | G8 | B8
#define SAGA_VIDEO_FORMAT_RGB32  5 // - | R8 | G8 | B8
#define SAGA_VIDEO_FORMAT_YUV422 6 //   Y4 | U2 | V2

#define SAGA_VIDEO_DBLSCAN_OFF    0
#define SAGA_VIDEO_DBLSCAN_X     1
#define SAGA_VIDEO_DBLSCAN_Y     2
#define SAGA_VIDEO_DBLSCAN_XY    (SAGA_VIDEO_DBLSCAN_X |
SAGA_VIDEO_DBLSCAN_Y)

#define SAGA_VIDEO_MODE_FORMAT(x) (((x) & 0xff) << 0)
#define SAGA_VIDEO_MODE_DBLSCAN(x) (((x) & 0xff) << 8)

// Video Mode = DblScan OFF + RGB16

*(volatile UWORD *)SAGA_VIDEO_MODE =
    SAGA_VIDEO_MODE_FORMAT(SAGA_VIDEO_FORMAT_RGB16) |
```

```

SAGA_VIDEO_MODE_DBLSCN(SAGA_VIDEO_DBLSCAN_OFF);

// Video Mode = DblScan XY + CLUT8

*(volatile UWORD *)SAGA_VIDEO_MODE =
  SAGA_VIDEO_MODE_FORMAT(SAGA_VIDEO_FORMAT_CLUT8) |
  SAGA_VIDEO_MODE_DBLSCN(SAGA_VIDEO_DBLSCAN_XY);

```

Example in ASM:

```

SAGA_VIDEO_MODE EQU $DFF1F4

SAGA_VIDEO_FORMAT_OFF EQU $00
SAGA_VIDEO_FORMAT_CLUT8 EQU $01
SAGA_VIDEO_FORMAT_RGB16 EQU $02 ; R5|G6|B5
SAGA_VIDEO_FORMAT_RGB15 EQU $03 ; -|R5|G5|B5
SAGA_VIDEO_FORMAT_RGB24 EQU $04 ; R8|G8|B8
SAGA_VIDEO_FORMAT_RGB32 EQU $05 ; -|R8|G8|B8
SAGA_VIDEO_FORMAT_YUV422 EQU $06 ; Y4|U2|V2

SAGA_VIDEO_DBLSCAN_OFF EQU $00
SAGA_VIDEO_DBLSCAN_X EQU $01
SAGA_VIDEO_DBLSCAN_Y EQU $02
SAGA_VIDEO_DBLSCAN_XY EQU (SAGA_VIDEO_DBLSCAN_X | SAGA_VIDEO_DBLSCAN_Y)

; Video Mode = DblScan OFF + RGB16

MOVE.W #$0002,$DFF1F4
MOVE.W #(SAGA_VIDEO_FORMAT_RGB16|SAGA_VIDEO_DBLSCAN_OFF<<8),SAGA_VIDEO_MODE

; Video Mode = DblScan XY + CLUT8

MOVE.W #$0301,$DFF1F4
MOVE.W #(SAGA_VIDEO_FORMAT_CLUT8|SAGA_VIDEO_DBLSCAN_XY<<8),SAGA_VIDEO_MODE

```

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