Register Changes:

The register number is multiplied by 2 to account for 64-bit access instead of 32-bit access.

CTRL register is the only register with changes to bit meanings.

CTRL – Reg 00

Bits moved and added for color depth.

|  |  |  |
| --- | --- | --- |
| Bit # | Access | Description |
| [31:24] | ~ | Reserved |
| [23:20] | RW | Color Depth |
| [19] | W | Transform point |
| [18] | W | Forward point |
| [17:16] | RW | Active point |
| [15:14] | ~ | Reserved |
| [13] | W | Bézier inside shape |
| [12] | W | Interpolation |
| [11] | W | Curve write |
| [10] | W | Triangle write |
| [9] | W | Line write |
| [8] | W | Rect write |
| [7] | W | Point write |
| [6] | RW | Z-buffer enable |
| [5] | RW | Clipping enable |
| [4] | RW | Color-key enable |
| [3] | RW | Blending enable |
| [2] | RW | Texture0 enable |
| [1] | ~ | Reserved |
| [0] | W | Char write |

Color depth is the number of bits per color component – 1.

|  |  |  |
| --- | --- | --- |
| Mode | Color Depth |  |
| 000 | 4 bit |  |
| 001 | 8 bit |  |
| 010 | 12 bit |  |
| 011 | 16 bit |  |
| 100 | 20 bit |  |
| 101 | reserved |  |
| 110 | reserved |  |
| 111 | 32 bit |  |

Several new register have been added to define the target area, font table, font in use (font ID)

|  |  |  |
| --- | --- | --- |
| Reg # | Access | Description |
| x160 | RW | Target X0 |
| x168 | RW | Target Y0 |
| x170 | RW | Target X1 |
| x178 | RW | Target Y1 |
| x180 | RW | Font Table Base Address |
| x188 | RW | Font ID |
| x190 | RW | Char Code |

Using the text blitter:

Setup the font table containing the bitmap font information.

Set the position of the character using the dest\_x0, dest\_y0 registers.

Set the character code to display in the Char code register.

Select the font to use in the font id register.

Set the char write bit in the control register. It will automatically reset.