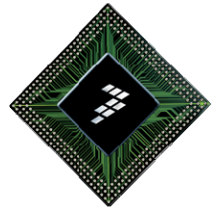
iMX51 WinCE GPU Driver Introduction



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GPU 2D

- The GPU2D (2D graphics processing unit) is based on the AMD Z160 core.
- Followed with OpenVG 1.1 graphics API and feature set.
- Graphics Device Interface (GDI) Acceleration
  - BSP parameter: BSP_DISPLAY_Z160
  - Registry:

```
;0x01  enable accelerating solid color fill
;0x02  eanble accelerating pattern fill
;0x04  enable accelerating simple source copy
;0x08  enable accelerating of draw line
;0x10  enable accelerating source copy with mask
;0x20  enable accelerating stretch source copy
;0x100 enable accelerating when screen rotation
[HKEY_LOCAL_MACHINE\Drivers\Display\DDIPU]
   "C2DFlag"=dword:13F     ; Flag for c2d
```

GPU 3D

- The GPU3D (3D graphics processing unit) is based on the AMD Z430 core.
- Direct3D Mobile: capable of DirectX9 Shader Model 3.0+.
- Graphics APIs: OpenGL ES 1.1 and 2.0, EGL 1.3.
- Microsoft Silverlight Acceleration support
  - BSP parameter: BSP_XRPLUGIN_OPENGL
  - SYSGEN flag:
    - SYSGEN_SAMPLEXAMLPERF
    - SYSGEN_XAML_RUNTIME

GPU Example Application

- Graphics System Layer(GSL) demo: gsl_test.exe
- EGL demo: egltest.exe
- OpengGL ES 1.1 demo: cube.exe
- OpengGL ES 2.0 demo: triangle.exe
- OpengVG 1.1 demo: tiger.exe
- Microsoft D3DM demo:
  d3dm_createdevice.exe, d3dm_fixedpoint.exe, d3dm_lights.exe, d3dm_matrices.exe, d3dm_textures.exe … …

GPU Test

- Direct3D Mobile CETK Tests.
- OpenGL ES 1.1/2.0 Conformance Test.
- OpenVG 1.1 Conformance Test.
- Known issues
  - The Direct3D Mobile Driver Comparison Test #2805 case fails due to hardware limitation.
  - Refer to the release notes for up-to-date known issue list.


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