

AMD IL



Last time we introduced HLSL and the R600 ISA

AMD IL is a portable *immediate language* that sits between high level languages (Brook+ or HLSL) and the ISA

AMD IL is meant to be generation compatible s.t. future hardware can compile from IL whereas the ISA is asic dependent

Example

Brook+ Kernel

```
kernel void sum(float a<>, float b<>, out float c<>)
{
    c = a + b;
}
```

Generated AMD IL

```
il_pa_2_0
dcl_cb cb0[1]
dcl_resource_id(0)_type(2d,unorm)_fmtx(float)_fmty(float)_fmtz(float)_fmtw(float)
dcl_input_generic_interp(linear) v0.xy__
dcl_resource_id(1)_type(2d,unorm)_fmtx(float)_fmty(float)_fmtz(float)_fmtw(float)
dcl_input_generic_interp(linear) v1.xy__
sample_resource(0)_sampler(0) r0.x, v0.xy00
sample_resource(1)_sampler(1) r1.x, v1.xy00
mov r2.x, r0.xxxx
mov r3.x, r1.xxxx
call 0
mov r4.x, r5.xxxx
dcl_output_generic o0
mov o0, r4.xxxx
ret
func 0
add r6.x, r2.xxxx, r3.xxxx
mov r7.x, r6.xxxx
mov r5.x, r7.xxxx
ret
end
```

