EXTERN\_C const IID IID\_ID3D12GraphicsCommandList;

#if defined(\_\_cplusplus) && !defined(CINTERFACE)

MIDL\_INTERFACE("5b160d0f-ac1b-4185-8ba8-b3ae42a5a455")

ID3D12GraphicsCommandList : public ID3D12CommandList

{

public:

virtual HRESULT STDMETHODCALLTYPE Close( void) = 0;

virtual HRESULT STDMETHODCALLTYPE Reset(

\_In\_ ID3D12CommandAllocator \*pAllocator,

\_In\_opt\_ ID3D12PipelineState \*pInitialState) = 0;

virtual void STDMETHODCALLTYPE ClearState(

\_In\_opt\_ ID3D12PipelineState \*pPipelineState) = 0;

virtual void STDMETHODCALLTYPE DrawInstanced(

\_In\_ UINT VertexCountPerInstance,

\_In\_ UINT InstanceCount,

\_In\_ UINT StartVertexLocation,

\_In\_ UINT StartInstanceLocation) = 0;

virtual void STDMETHODCALLTYPE DrawIndexedInstanced(

\_In\_ UINT IndexCountPerInstance,

\_In\_ UINT InstanceCount,

\_In\_ UINT StartIndexLocation,

\_In\_ INT BaseVertexLocation,

\_In\_ UINT StartInstanceLocation) = 0;

virtual void STDMETHODCALLTYPE Dispatch(

\_In\_ UINT ThreadGroupCountX,

\_In\_ UINT ThreadGroupCountY,

\_In\_ UINT ThreadGroupCountZ) = 0;

virtual void STDMETHODCALLTYPE CopyBufferRegion(

\_In\_ ID3D12Resource \*pDstBuffer,

UINT64 DstOffset,

\_In\_ ID3D12Resource \*pSrcBuffer,

UINT64 SrcOffset,

UINT64 NumBytes) = 0;

virtual void STDMETHODCALLTYPE CopyTextureRegion(

\_In\_ const D3D12\_TEXTURE\_COPY\_LOCATION \*pDst,

UINT DstX,

UINT DstY,

UINT DstZ,

\_In\_ const D3D12\_TEXTURE\_COPY\_LOCATION \*pSrc,

\_In\_opt\_ const D3D12\_BOX \*pSrcBox) = 0;

virtual void STDMETHODCALLTYPE CopyResource(

\_In\_ ID3D12Resource \*pDstResource,

\_In\_ ID3D12Resource \*pSrcResource) = 0;

virtual void STDMETHODCALLTYPE CopyTiles(

\_In\_ ID3D12Resource \*pTiledResource,

\_In\_ const D3D12\_TILED\_RESOURCE\_COORDINATE \*pTileRegionStartCoordinate,

\_In\_ const D3D12\_TILE\_REGION\_SIZE \*pTileRegionSize,

\_In\_ ID3D12Resource \*pBuffer,

UINT64 BufferStartOffsetInBytes,

D3D12\_TILE\_COPY\_FLAGS Flags) = 0;

virtual void STDMETHODCALLTYPE ResolveSubresource(

\_In\_ ID3D12Resource \*pDstResource,

\_In\_ UINT DstSubresource,

\_In\_ ID3D12Resource \*pSrcResource,

\_In\_ UINT SrcSubresource,

\_In\_ DXGI\_FORMAT Format) = 0;

virtual void STDMETHODCALLTYPE IASetPrimitiveTopology(

\_In\_ D3D12\_PRIMITIVE\_TOPOLOGY PrimitiveTopology) = 0;

virtual void STDMETHODCALLTYPE RSSetViewports(

\_In\_range\_(0, D3D12\_VIEWPORT\_AND\_SCISSORRECT\_OBJECT\_COUNT\_PER\_PIPELINE) UINT NumViewports,

\_In\_reads\_( NumViewports) const D3D12\_VIEWPORT \*pViewports) = 0;

virtual void STDMETHODCALLTYPE RSSetScissorRects(

\_In\_range\_(0, D3D12\_VIEWPORT\_AND\_SCISSORRECT\_OBJECT\_COUNT\_PER\_PIPELINE) UINT NumRects,

\_In\_reads\_( NumRects) const D3D12\_RECT \*pRects) = 0;

virtual void STDMETHODCALLTYPE OMSetBlendFactor(

\_In\_reads\_opt\_(4) const FLOAT BlendFactor[ 4 ]) = 0;

virtual void STDMETHODCALLTYPE OMSetStencilRef(

\_In\_ UINT StencilRef) = 0;

virtual void STDMETHODCALLTYPE SetPipelineState(

\_In\_ ID3D12PipelineState \*pPipelineState) = 0;

virtual void STDMETHODCALLTYPE ResourceBarrier(

\_In\_ UINT NumBarriers,

\_In\_reads\_(NumBarriers) const D3D12\_RESOURCE\_BARRIER \*pBarriers) = 0;

virtual void STDMETHODCALLTYPE ExecuteBundle(

\_In\_ ID3D12GraphicsCommandList \*pCommandList) = 0;

virtual void STDMETHODCALLTYPE SetDescriptorHeaps(

\_In\_ UINT NumDescriptorHeaps,

\_In\_reads\_(NumDescriptorHeaps) ID3D12DescriptorHeap \*const \*ppDescriptorHeaps) = 0;

virtual void STDMETHODCALLTYPE SetComputeRootSignature(

\_In\_opt\_ ID3D12RootSignature \*pRootSignature) = 0;

virtual void STDMETHODCALLTYPE SetGraphicsRootSignature(

\_In\_opt\_ ID3D12RootSignature \*pRootSignature) = 0;

virtual void STDMETHODCALLTYPE SetComputeRootDescriptorTable(

\_In\_ UINT RootParameterIndex,

\_In\_ D3D12\_GPU\_DESCRIPTOR\_HANDLE BaseDescriptor) = 0;

virtual void STDMETHODCALLTYPE SetGraphicsRootDescriptorTable(

\_In\_ UINT RootParameterIndex,

\_In\_ D3D12\_GPU\_DESCRIPTOR\_HANDLE BaseDescriptor) = 0;

virtual void STDMETHODCALLTYPE SetComputeRoot32BitConstant(

\_In\_ UINT RootParameterIndex,

\_In\_ UINT SrcData,

\_In\_ UINT DestOffsetIn32BitValues) = 0;

virtual void STDMETHODCALLTYPE SetGraphicsRoot32BitConstant(

\_In\_ UINT RootParameterIndex,

\_In\_ UINT SrcData,

\_In\_ UINT DestOffsetIn32BitValues) = 0;

virtual void STDMETHODCALLTYPE SetComputeRoot32BitConstants(

\_In\_ UINT RootParameterIndex,

\_In\_ UINT Num32BitValuesToSet,

\_In\_reads\_(Num32BitValuesToSet\*sizeof(UINT)) const void \*pSrcData,

\_In\_ UINT DestOffsetIn32BitValues) = 0;

virtual void STDMETHODCALLTYPE SetGraphicsRoot32BitConstants(

\_In\_ UINT RootParameterIndex,

\_In\_ UINT Num32BitValuesToSet,

\_In\_reads\_(Num32BitValuesToSet\*sizeof(UINT)) const void \*pSrcData,

\_In\_ UINT DestOffsetIn32BitValues) = 0;

virtual void STDMETHODCALLTYPE SetComputeRootConstantBufferView(

\_In\_ UINT RootParameterIndex,

\_In\_ D3D12\_GPU\_VIRTUAL\_ADDRESS BufferLocation) = 0;

virtual void STDMETHODCALLTYPE SetGraphicsRootConstantBufferView(

\_In\_ UINT RootParameterIndex,

\_In\_ D3D12\_GPU\_VIRTUAL\_ADDRESS BufferLocation) = 0;

virtual void STDMETHODCALLTYPE SetComputeRootShaderResourceView(

\_In\_ UINT RootParameterIndex,

\_In\_ D3D12\_GPU\_VIRTUAL\_ADDRESS BufferLocation) = 0;

virtual void STDMETHODCALLTYPE SetGraphicsRootShaderResourceView(

\_In\_ UINT RootParameterIndex,

\_In\_ D3D12\_GPU\_VIRTUAL\_ADDRESS BufferLocation) = 0;

virtual void STDMETHODCALLTYPE SetComputeRootUnorderedAccessView(

\_In\_ UINT RootParameterIndex,

\_In\_ D3D12\_GPU\_VIRTUAL\_ADDRESS BufferLocation) = 0;

virtual void STDMETHODCALLTYPE SetGraphicsRootUnorderedAccessView(

\_In\_ UINT RootParameterIndex,

\_In\_ D3D12\_GPU\_VIRTUAL\_ADDRESS BufferLocation) = 0;

virtual void STDMETHODCALLTYPE IASetIndexBuffer(

\_In\_opt\_ const D3D12\_INDEX\_BUFFER\_VIEW \*pView) = 0;

virtual void STDMETHODCALLTYPE IASetVertexBuffers(

\_In\_ UINT StartSlot,

\_In\_ UINT NumViews,

\_In\_reads\_opt\_(NumViews) const D3D12\_VERTEX\_BUFFER\_VIEW \*pViews) = 0;

virtual void STDMETHODCALLTYPE SOSetTargets(

\_In\_ UINT StartSlot,

\_In\_ UINT NumViews,

\_In\_reads\_opt\_(NumViews) const D3D12\_STREAM\_OUTPUT\_BUFFER\_VIEW \*pViews) = 0;

virtual void STDMETHODCALLTYPE OMSetRenderTargets(

\_In\_ UINT NumRenderTargetDescriptors,

\_In\_opt\_ const D3D12\_CPU\_DESCRIPTOR\_HANDLE \*pRenderTargetDescriptors,

\_In\_ BOOL RTsSingleHandleToDescriptorRange,

\_In\_opt\_ const D3D12\_CPU\_DESCRIPTOR\_HANDLE \*pDepthStencilDescriptor) = 0;

virtual void STDMETHODCALLTYPE ClearDepthStencilView(

\_In\_ D3D12\_CPU\_DESCRIPTOR\_HANDLE DepthStencilView,

\_In\_ D3D12\_CLEAR\_FLAGS ClearFlags,

\_In\_ FLOAT Depth,

\_In\_ UINT8 Stencil,

\_In\_ UINT NumRects,

\_In\_reads\_(NumRects) const D3D12\_RECT \*pRects) = 0;

virtual void STDMETHODCALLTYPE ClearRenderTargetView(

\_In\_ D3D12\_CPU\_DESCRIPTOR\_HANDLE RenderTargetView,

\_In\_ const FLOAT ColorRGBA[ 4 ],

\_In\_ UINT NumRects,

\_In\_reads\_(NumRects) const D3D12\_RECT \*pRects) = 0;

virtual void STDMETHODCALLTYPE ClearUnorderedAccessViewUint(

\_In\_ D3D12\_GPU\_DESCRIPTOR\_HANDLE ViewGPUHandleInCurrentHeap,

\_In\_ D3D12\_CPU\_DESCRIPTOR\_HANDLE ViewCPUHandle,

\_In\_ ID3D12Resource \*pResource,

\_In\_ const UINT Values[ 4 ],

\_In\_ UINT NumRects,

\_In\_reads\_(NumRects) const D3D12\_RECT \*pRects) = 0;

virtual void STDMETHODCALLTYPE ClearUnorderedAccessViewFloat(

\_In\_ D3D12\_GPU\_DESCRIPTOR\_HANDLE ViewGPUHandleInCurrentHeap,

\_In\_ D3D12\_CPU\_DESCRIPTOR\_HANDLE ViewCPUHandle,

\_In\_ ID3D12Resource \*pResource,

\_In\_ const FLOAT Values[ 4 ],

\_In\_ UINT NumRects,

\_In\_reads\_(NumRects) const D3D12\_RECT \*pRects) = 0;

virtual void STDMETHODCALLTYPE DiscardResource(

\_In\_ ID3D12Resource \*pResource,

\_In\_opt\_ const D3D12\_DISCARD\_REGION \*pRegion) = 0;

virtual void STDMETHODCALLTYPE BeginQuery(

\_In\_ ID3D12QueryHeap \*pQueryHeap,

\_In\_ D3D12\_QUERY\_TYPE Type,

\_In\_ UINT Index) = 0;

virtual void STDMETHODCALLTYPE EndQuery(

\_In\_ ID3D12QueryHeap \*pQueryHeap,

\_In\_ D3D12\_QUERY\_TYPE Type,

\_In\_ UINT Index) = 0;

virtual void STDMETHODCALLTYPE ResolveQueryData(

\_In\_ ID3D12QueryHeap \*pQueryHeap,

\_In\_ D3D12\_QUERY\_TYPE Type,

\_In\_ UINT StartIndex,

\_In\_ UINT NumQueries,

\_In\_ ID3D12Resource \*pDestinationBuffer,

\_In\_ UINT64 AlignedDestinationBufferOffset) = 0;

virtual void STDMETHODCALLTYPE SetPredication(

\_In\_opt\_ ID3D12Resource \*pBuffer,

\_In\_ UINT64 AlignedBufferOffset,

\_In\_ D3D12\_PREDICATION\_OP Operation) = 0;

virtual void STDMETHODCALLTYPE SetMarker(

UINT Metadata,

\_In\_reads\_bytes\_opt\_(Size) const void \*pData,

UINT Size) = 0;

virtual void STDMETHODCALLTYPE BeginEvent(

UINT Metadata,

\_In\_reads\_bytes\_opt\_(Size) const void \*pData,

UINT Size) = 0;

virtual void STDMETHODCALLTYPE EndEvent( void) = 0;

virtual void STDMETHODCALLTYPE ExecuteIndirect(

\_In\_ ID3D12CommandSignature \*pCommandSignature,

\_In\_ UINT MaxCommandCount,

\_In\_ ID3D12Resource \*pArgumentBuffer,

\_In\_ UINT64 ArgumentBufferOffset,

\_In\_opt\_ ID3D12Resource \*pCountBuffer,

\_In\_ UINT64 CountBufferOffset) = 0;

};