reinterpret_cast<IUnknown*>(CA::this)

CA::this

static_cast<IX*>(CA::this)

CA object in data space

CA class virtual function pointer table - only one per class

function definitions

IX vtbl pointer
IY vtbl pointer
Long m_RefCnt

static_cast<IY*>(CA::this)

QueryInterface
AddRef
Release
Fx
QueryInterface
AddRef
Release
Fy

QueryInterface
AddRef
Release
Fx
Fy

static_cast<IY*>(CA::this)
  static_cast provides conversions
    from the source type (CA::this)
    to the target type <IY*>
    It creates a new object of the target type.

reinterpret_cast<IUnknown*>(CA::this)
  reinterpret_cast interprets the same
  bit pattern as belonging to a different type
  No new object is created.