**UEFI Service Binding Protocol**

**Intro:**

The Service Binding Protocol is not associated with a single GUID value. Instead, each Service Binding Protocol GUID value is paired with another protocol providing a specific set of service.

The protocol interfaces for all Service Binding Protocols are identical and contain the services CreateChild() and DestroyChild(). When CreateChild() is called, a new handle is created with the associated protocol installed. When DestroyChild() is called, the associated protocol is uninstalled and handle is freed.

struct \_EFI\_SERVICE\_BINDING\_PROTOCOL {

EFI\_SERVICE\_BINDING\_CREATE\_CHILD CreateChild;

EFI\_SERVICE\_BINDING\_DESTROY\_CHILD DestroyChild;

};

**When to use?**

For a new protocol, decision must be made to determine if the new protocol requires a Service Binding Protocol. Driver Binding Protocol is usually enough for managing devices on a common bus topology and for the simple layering of protocols on a single device. When more complex tree or graph topologies are required and, with the expectation that the services of the new protocol be required by multiple consumers, a Service Binding Protocol should be considered.

**Sample Code:**

#include <Uefi.h>

#include <Protocol/ServiceBinding.h>

#include <Library/UefiBootServicesTableLib.h>

typedef struct {

UINT32 AbcField;

} ABC\_PROTOCOL;

EFI\_HANDLE gAbcServiceBindingHandle = NULL;

EFI\_SERVICE\_BINDING\_PROTOCOL gAbcServiceBinding = {

AbcCreateChild,

AbcDestroyChild

};

ABC\_PROTOCOL gAbc = {

0

};

EFI\_STATUS

EFIAPI

AbcCreateChild(

IN EFI\_SERVICE\_BINDING\_PROTOCOL\* This,

IN OUT EFI\_HANDLE\* ChildHandle

)

{

EFI\_HANDLE NewHandle;

NewHandle = NULL;

return gBS->InstallMultipleProtocolInterfaces(

&NewHandle,

&gAbcProtocolGuid,

&gAbc,

NULL

);

}

EFI\_STATUS

EFIAPI

AbcDestroyChild(

IN EFI\_SERVICE\_BINDING\_PROTOCOL\* This,

IN EFI\_HANDLE ChildHandle

)

{

return gBS->UninstallMultipleProtocolInterfaces(

ChildHandle,

&gAbcProtocolGuid,

&gAbc,

NULL

);

}

EFI\_STATUS

EFIAPI

AbcDriverEntryPoint(

IN EFI\_HANDLE ImageHandle,

IN EFI\_SYSTEM\_TABLE\* SystemTable

)

{

//

// Install Service Binding Protocol for ABC onto a new handle

//

return gBS->InstallMultipleProtocolInterfaces(

&gAbcServiceBindingHandle,

&gAbcServiceBindingProtocolGuid,

&gAbcServiceBinding,

NULL

);

}