Altium ®

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Using Altium Documentation
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> Please note that this documentation was last updated for an older version of Altium Designer. While many of the principles and approaches will remain the same, be aware that interfaces, objects, methods, properties, and the like will have changed since then, and will not reflect the entirety of those found in later versions of the software.

Developed examples:

Use of new IPCB_LayerStack inteface to show available layers:

```
{----- for reference ------
TLayerClassID:
  eLayerClass_All
  eLayerClass_Mechanical
  eLayerClass_Physical
  eLayerClass_Electrical
  eLayerClass_Dielectric
  eLayerClass_Signal
  eLayerClass_InternalPlane
  eLayerClass_SolderMask
  eLayerClass_Overlay
  eLayerClass_PasteMask
--------------------------}

Procedure LayerInfo;
Var
  Board     : IPCB_Board;
  Stack     : IPCB_LayerStack;
  LyrObj    : IPCB_LayerObject;
  LyrClass  : string;

Begin
  // layer class type nominated (see TLayerClassID list above).
  LyrClass : = eLayerClass_Signal;

  Board := PCBServer.GetCurrentPCBBoard;
  Stack := Board.LayerStack;

  // get first layer of the class type.
  LyrObj := Stack.First(LyrClass);

  // exit if layer type is not available in stack
  If LyrObj = Nil then Exit;

  // iterate through layers and display each layer name
  Repeat
    ShowMessage(LyrObj.Name);
    LyrObj := Stack.Next(LyrClass, LyrObj);
  Until LyrObj = Nil;

End;
```

Use of IPCB_MasterLayerStack interface to show Sub Stack infomation:

```
Procedure SubStackInfo;
Var
  Board       : IPCB_Board;
  masterStack : IPCB_MasterLayerStack;
  subStack    : IPCB_LayerStack;

Begin
  Board := PCBServer.GetCurrentPCBBoard;
  masterStack := Board.MasterLayerStack;
  subStack := masterStack.Substacks[0]; // nominate first substack: 0

  ShowInfo('Number of sub stacks: ' + OleStrToString(masterStack.SubstackCount));
  ShowInfo('Layers in first sub stack: ' + OleStrToString(subStack.Count));
  ShowInfo('Is a flex layer: ' + OleStrToString(subStack.IsFlex));

// if available, select second substack: 1
  if masterStack.SubstackCount > 1 then
  begin
    subStack := masterStack.Substacks[1];
    ShowInfo('Layers in second sub stack: ' + OleStrToString(subStack.Count));
    ShowInfo('Is a flex layer: ' + OleStrToString(subStack.IsFlex));
  end
  else Exit;

End;
```

IPCB_MechanicalLayer interface used to display enabled mechanical layers:

```
Procedure MechLayerInfo;
Var
  Board     : IPCB_Board;
  Stack     : IPCB_LayerStack;
  mLyrObj   : IPCB_MechanicalLayer;
  Lyr       : TLayer;

Begin
  Board := PCBServer.GetCurrentPCBBoard;
  Stack := Board.LayerStack;

  for Lyr := eMechanical1 to eMechanical16 do
  begin
    mLyrObj := Stack.LayerObject[Lyr];
    If mLyrObj.MechanicalLayerEnabled then ShowInfo(mLyrObj.Name);
  end;

End;
```

IPCB_LayerStack

```
IPCB_LayerStackBase
    IPCB_LayerStack *
IPCB_LayerStack_V7 *
```

IPCB_LayerStack - Deprecated	IPCB_LayerStack_V7	IPCB_LayerStack (inherits from IPCB_LayerStackBase)

Methods
RemoveFromStack (L : IPCB_LayerObject);
InsertInStackBelow (RefL : IPCB_LayerObject;
                    L : IPCB_LayerObject);
InsertInStackAbove (RefL : IPCB_LayerObject;
                    L : IPCB_LayerObject);
FirstLayer : IPCB_LayerObject;
NextLayer (L : IPCB_LayerObject) : IPCB_LayerObject;
PreviousLayer (L : IPCB_LayerObject) : IPCB_LayerObject;
LastLayer : IPCB_LayerObject;
InsertLayer (L : TLayer);
LastInternalPlane : IPCB_InternalPlane;
FirstAvailableSignalLayer : IPCB_LayerObject;
FirstAvailableInternalPlane : IPCB_InternalPlane;
SignalLayerCount : Integer;
GetState_LayerStackStyle : TLayerStackStyle;
SetState_LayerStackStyle(SS : TLayerStackStyle);
	Methods/Functions
	RemoveFromStack(L : IPCB_LayerObject_V7);
	InsertInStackBelow (RefL : IPCB_LayerObject_V7;
	                      L : IPCB_LayerObject_V7);
	InsertInStackAbove (RefL : IPCB_LayerObject_V7;
	                      L : IPCB_LayerObject_V7);
	FirstLayer : IPCB_LayerObject_V7;
	NextLayer(L : IPCB_LayerObject_V7) : IPCB_LayerObject_V7;
	PreviousLayer(L : IPCB_LayerObject_V7) : IPCB_LayerObject_V7;
	LastLayer : IPCB_LayerObject_V7;
	InsertLayer(L : TV6_Layer);
	LastInternalPlane : IPCB_InternalPlane_V7;
	FirstAvailableSignalLayer : IPCB_LayerObject_V7;
	FirstAvailableInternalPlane : IPCB_InternalPlane_V7;
	SignalLayerCount : Integer;
	GetState_LayerStackStyle : TLayerStackStyle;
	SetState_LayerStackStyle(SS : TLayerStackStyle);
	LayersInStackCount : Integer;
		Methods/Functions
		I_ObjectAddress : TPCBObjectHandle;
		ID : WideString;
		StateID : Integer;
		Count : Integer; //three forms (usage in source)
		Iterator : IPCB_LayerObjectIterator; //three forms
		First(t : TLayerClassID) : IPCB_LayerObject;
		Last(t : TLayerClassID) : IPCB_LayerObject;
		Next(t : TLayerClassID; ARefLayer : IPCB_LayerObject) : IPCB_LayerObject;
		Previous(t : TLayerClassID; ARefLayer : IPCB_LayerObject) : IPCB_LayerObject;
		--- above inherited from IPCB_LayerStackBase ---
		Board : IPCB_Board;
		LayerObject(ALayer : TV6_Layer) : IPCB_LayerObject;
		LayerObject(ALayer : TV7_Layer) : IPCB_LayerObject;
		DielectricTop : IPCB_SolderMaskLayer;
		DielectricBottom : IPCB_SolderMaskLayer;

Properties Board : IPCB_BoardRead	**Properties** Board : IPCB_BoardRead	**Properties** Name : TPCBString

```
        - GetState_Board;                          - GetState_Board;                              - GetState_Name;
LayerObject [L : TLayer]: IPCB_LayerObject  LayerObject [L : TLayer]: IPCB_LayerObject         - SetState_Name;
        - GetState_LayerObject;                    - GetState_LayerObject;                 IsFlex : Boolean
DielectricTop : IPCB_DielectricObject       DielectricTop : IPCB_DielectricObject              - GetState_IsFlex;
        - GetState_DielectricTop;                  - GetState_DielectricTop;                      - SetState_IsFlex;
DielectricBottom: IPCB_DielectricObject     DielectricBottom: IPCB_DielectricObject   --- above inherited from IPCB_LayerStackBase ---
        - GetState_DielectricBottom;               - GetState_DielectricBottom;            ShowDielectricTop : Boolean
ShowDielectricTop : Boolean                 ShowDielectricTop : Boolean                        - GetState_ShowTopDielectric;
        - GetState_ShowTopDielectric;              - GetState_ShowTopDielectric;                  - SetState_ShowTopDielectric;
        - SetState_ShowTopDielectric;              - SetState_ShowTopDielectric;           ShowDielectricBottom : Boolean
ShowDielectricBottom: Boolean               ShowDielectricBottom: Boolean                      - GetState_ShowBotDielectric;
        - GetState_ShowBotDielectric;              - GetState_ShowBotDielectric;                  - SetState_ShowBotDielectric;
        - SetState_ShowBotDielectric;              - SetState_ShowBotDielectric;
```

IPCB_LayerObject

Inheritance
```
IPCB_LayerObject *
    IPCB_PhysicalLayer
        IPCB_ElectricalLayer
            IPCB_LayerObject_V7 *
```

IPCB_LayerObject - Deprecated	IPCB_LayerObject_V7 (inherits from -->>)	IPCB_LayerObject
Methods I_ObjectAddress : TPCBObjectHandle; IsInLayerStack : Boolean;	**Methods/Functions** I_ObjectAddress : Pointer IsInLayerStack : Boolean; V7_LayerID : IDispatch; (TV7_Layer) V6_LayerID : TV6_Layer; LayerStack : IPCB_LayerStackBase; --- above inherited from IPCB_LayerObject --- Dielectric : IPCB_DielectricObject; LayerID : TV6_Layer;	**Methods/Functions** I_ObjectAddress : Pointer IsInLayerStack : Boolean; V7_LayerID : IDispatch; (TV7_Layer) V6_LayerID : TV6_Layer; LayerStack : IPCB_LayerStackBase;

Properties
LayerStack : IPCB_LayerStack
    - GetState_LayerStack;
LayerID : TLayer
    - GetState_LayerID;
    - Write SetState_LayerID;
Name: TPCBString
    - GetState_LayerName;
    - SetState_LayerName;
CopperThickness : TCoord
    - GetState_CopperThickness;
    - SetState_CopperThickness;
Dielectric : IPCB_DielectricObject
    - GetState_Dielectric;
UsedByPrims : Boolean
    - GetState_UsedByPrims;
    - SetState_UsedByPrims;
IsDisplayed[Board : IPCB_Board] : Boolean
    - GetState_IsDisplayed;
    - SetState_IsDisplayed;
PreviousLayer : TLayer
    - GetState_PreviousLayer;
    - SetState_PreviousLayer;
NextLayer : TLayer
    - GetState_NextLayer;
    - SetState_NextLayer;
	Properties
	Name : TPCBString
	    - GetState_LayerName;
	    - SetState_LayerName;
	UsedByPrims : Boolean
	    - GetState_UsedByPrims;
	    - SetState_UsedByPrims;
	--- above inherited from IPCB_LayerObject ---
	CopperThickness : Tcoord
	    - GetState_CopperThickness;
	    - SetState_CopperThickness;
	--- above inherited from IPCB_ElectricalLayer ---
	IsDisplayed [Board : IPCB_Board] : Boolean
	    - GetState_IsDisplayed;
	    - SetState_IsDisplayed;
		Properties
		Name : TPCBString
		    - GetState_LayerName;
		    - SetState_LayerName;
		UsedByPrims : Boolean
		    - GetState_UsedByPrims;
		    - SetState_UsedByPrims;

IPCB_InternalPlane

Inheritance
```
IPCB_LayerObject
    IPCB_PhysicalLayer
        IPCB_ElectricalLayer
            IPCB_LayerObject_V7
            IPCB_InternalPlane *
                IPCB_InternalPlane_V7 *
```

IPCB_InternalPlane - Deprecated	IPCB_InternalPlane_V7	IPCB_InternalPlane
Methods I_ObjectAddress : TPCBObjectHandle; IsInLayerStack : Boolean; -- above from IPCB_LayerObject --	see ->	**Methods** I_ObjectAddress : Pointer IsInLayerStack : Boolean; V7_LayerID : IDispatch; (TV7_Layer) V6_LayerID : TV6_Layer; LayerStack : IPCB_LayerStackBase;

Properties
LayerStack : IPCB_LayerStack
    - GetState_LayerStack;
LayerID : TLayer
    - GetState_LayerID;
    - Write SetState_LayerID;
Name: TPCBString
    - GetState_LayerName;
    - SetState_LayerName;
CopperThickness : TCoord
    - GetState_CopperThickness;
    - SetState_CopperThickness;
Dielectric : IPCB_DielectricObject
    - GetState_Dielectric;
UsedByPrims : Boolean
    - GetState_UsedByPrims;
    - SetState_UsedByPrims;
IsDisplayed[Board : IPCB_Board] : Boolean
    - GetState_IsDisplayed;
    - SetState_IsDisplayed;
PreviousLayer : TLayer
    - GetState_PreviousLayer;
    - SetState_PreviousLayer;
NextLayer : TLayer
    - GetState_NextLayer;
    - SetState_NextLayer;
-- above from IPCB_LayerObject --
PullBackDistance: TCoord
    - GetState_PullBackDistance;
    - SetState_PullBackDistance;
NetName : TPCBString
    - GetState_NetName;
	see ->	**Properties**
		Name : TPCBString
		    - GetState_LayerName;
		    - SetState_LayerName;
		UsedByPrims : Boolean
		    - GetState_UsedByPrims;
		    - SetState_UsedByPrims;
		--- above inherited from IPCB_LayerObject ---
		CopperThickness : Tcoord
		    - GetState_CopperThickness;
		    - SetState_CopperThickness;
		--- above inherited from IPCB_ElectricalLayer ---
		PullBackDistance : Tcoord
		    - GetState_PullBackDistance;
		    - SetState_PullBackDistance;
		NetName : TPCBString
		    - GetState_NetName;
		    - SetState_NetName;

```
    - SetState_NetName;
FirstPreviousSignalLayer: TLayer
    - GetState_FirstPreviousSignalLayer;
FirstNextSignalLayer: TLayer
    - GetState_FirstNextSignalLayer;
```

IPCB_LayerSet & IPCB_LayerStackBase

- introduced interfaces.

Inheritance
IPCB_LayerStackBase
    IPCB_MasterLayerStack *
    IPCB_LayerStack *

IPCB_LayerSet	IPCB_LayerStackBase	IPCB_MasterLayerStack

Methods/Functions
Contains(L : TV7_Layer) : Boolean;
IsFinite : Boolean;
LayerIterator : IPCB_LayerIterator;
GetFirstLayer : TV7_Layer;
ContainsInternalPlaneLayers : Boolean;
IsAllLayers : Boolean;
IsEmpty : Boolean;
ToString : WideString;
EqualTo_1(ALayerSet : TLayerPartitionSet) : Boolean;
SerializeToString : WideString;
Include(L : TV7_Layer) : IPCB_LayerSet;
Exclude(L : TV7_Layer) : IPCB_LayerSet;
ExcludeAllLayers : IPCB_LayerSet;
ExcludeSignalLayers : IPCB_LayerSet;
ExcludeMechanicalLayers : IPCB_LayerSet;
ExcludeInternalPlaneLayers : IPCB_LayerSet;
IncludeSignalLayers : IPCB_LayerSet;
IncludeMiscLayers : IPCB_LayerSet;
IncludeMechanicalLayers : IPCB_LayerSet;
IncludeInternalPlaneLayers : IPCB_LayerSet;
IncludeStandardLayers : IPCB_LayerSet;
IncludeAllLayers : IPCB_LayerSet;
Complement : IPCB_LayerSet;
Intersection(LayerSet : IPCB_LayerSet) : IPCB_LayerSet;
Union(LayerSet : IPCB_LayerSet) : IPCB_LayerSet;
Replicate : IPCB_LayerSet;
EqualTo(ALayerSet : IPCB_LayerSet) : Boolean;
	Methods/Functions
	I_ObjectAddress : Pointer
	ID : WideString;
	StateID : Integer;
	Count : Integer; //three versions (usage in source)
	Iterator : IPCB_LayerObjectIterator; //three versions
	First(t : TLayerClassID) : IPCB_LayerObject;
	Last(t : TLayerClassID) : IPCB_LayerObject;
	Next(t : TLayerClassID; ARefLayer : IPCB_LayerObject) : IPCB_LayerObject;
	Previous(t : TLayerClassID; ARefLayer : IPCB_LayerObject) : IPCB_LayerObject;
		Methods/Functions
		I_ObjectAddress : Pointer
		ID : WideString;
		StateID : Integer;
		Count : Integer; //three versions (usage in source)
		Iterator : IPCB_LayerObjectIterator; //three versions
		First(t : TLayerClassID) : IPCB_LayerObject;
		Last(t : TLayerClassID) : IPCB_LayerObject;
		Next(t : TLayerClassID; ARefLayer : IPCB_LayerObject) : IPCB_LayerObject;
		Previous(t : TLayerClassID; ARefLayer : IPCB_LayerObject) : IPCB_LayerObject;
		--- above inherited from IPCB_LayerStackBase ---
		
		Board : IPCB_Board;
		CreateLayer (ALayer : TV7_Layer) : IPCB_LayerObject;
		RemoveLayer (Layer : IPCB_LayerObject) : Boolean;
		InsertOnTop (ALayer : IPCB_LayerObject) : IPCB_LayerObject;
		InsertOnBottom (ALayer : IPCB_LayerObject) : IPCB_LayerObject;
		InsertBelow (ARefLayer, ALayer : IPCB_LayerObject) : IPCB_LayerObject;
		InsertAbove (ARefLayer, ALayer : IPCB_LayerObject) : IPCB_LayerObject;
		DisableLayer (ASubstack : IPCB_LayerStack; ALayer : IPCB_LayerObject);
		EnableLayer (ASubstack : IPCB_LayerStack; ALayer : IPCB_LayerObject);
		CreateSubstack : IPCB_LayerStack;
		RemoveSubstack (Substack : IPCB_LayerStack) : Boolean;
		Import_FromParameters (Params : PChar);
		Export_ToParameters (Params : PChar);
		GetSubstack(ASubstackID : TPCBString) : IPCB_LayerStack;
		SubstackCount : Integer;

	Properties
	Name : TPCBString
	    - GetState_Name;
	    - SetState_Name;
	IsFlex : Boolean
	    - GetState_IsFlex;
	    - SetState_IsFlex;
		Properties
		Name : TPCBString
		    - GetState_Name;
		    - SetState_Name;
		IsFlex : Boolean
		    - GetState_IsFlex;
		    - SetState_IsFlex;
		--- above inherited from IPCB_LayerStackBase ---
		
		Substacks[Index : Integer] : IPCB_LayerStack
		    - GetState_Substacks;
		LayerStackStyle : TLayerStackStyle
		    - GetState_LayerStackStyle;
		    - SetState_LayerStackStyle;

IPCB_LayerSet
IPCB_LayerStackBase
IPCB_MasterLayerStack
IPCB_LayerSetUtils
IPCB_LayerUtils

IPCB_LayerIterator
IPCB_LayerListIterator
IPCB_LayerObjectIterator

IPCB_PhysicalLayer - Note: = IPCB_LayerObject
IPCB_SolderMaskLayer - Note: = IPCB_DielectricLayer
IPCB_OverlayLayer - Note: = IPCB_PhysicalLayer
IPCB_PasteMaskLayer - Note: = IPCB_PhysicalLayer
IPCB_ElectricalLayer
IPCB_SignalLayer

IPCB_InternalPlane_V7 - Note: = IPCB_InternalPlane
IPCB_DielectricObject - Note: now = IPCB_DielectricLayer
IPCB_SplitPlane - from IPCB_Group
IPCB_SplitPlaneRegion - from IPCB_Region

IPCB_ObjectClass
IPCB_ObjectClass2
IPCB_ObjectClassBase
IPCB_ObjectClass1

Note:

- If Scripting system
    ```
    TLayer = Integer;
    Else
    TLayer = TV7_Layer;
    End
    ```

Constant definitions:

- If Scripting system
    ```
    eNoLayer = eV6_NoLayer;
    eTopLayer = eV6_TopLayer;
    etc...
    Else
    eNoLayer = eV7_NoLayer;
    eTopLayer = eV7_TopLayer;
    etc...
    End
    ```

Note: 'Else' indicates SDK

Type: `TLayerClassID`

TLayerClassID = (eLayerClass_All, eLayerClass_Mechanical, eLayerClass_Physical, eLayerClass_Electrical, eLayerClass_Dielectric, eLayerClass_Signal, eLayerClass_InternalPlane, eLayerClass_SolderMask, eLayerClass_Overlay, eLayerClass_PasteMask);

Type: TV6_Layer - (equiv TLayer; Enum Type)
TV6_Layer = (eV6_NoLayer, eV6_TopLayer, eV6_MidLayer1, eV6_MidLayer2, eV6_MidLayer3, eV6_MidLayer4, eV6_MidLayer5, eV6_MidLayer6, eV6_MidLayer7, eV6_MidLayer8, eV6_MidLayer9, eV6_MidLayer10, eV6_MidLayer11, eV6_MidLayer12, eV6_MidLayer13, eV6_MidLayer14, eV6_MidLayer15, eV6_MidLayer16, eV6_MidLayer17, eV6_MidLayer18, eV6_MidLayer19, eV6_MidLayer20, eV6_MidLayer21, eV6_MidLayer22, eV6_MidLayer23, eV6_MidLayer24, eV6_MidLayer25, eV6_MidLayer26, eV6_MidLayer27, eV6_MidLayer28, eV6_MidLayer29, eV6_MidLayer30, eV6_BottomLayer, eV6_TopOverlay, eV6_BottomOverlay, eV6_TopPaste, eV6_BottomPaste, eV6_TopSolder, eV6_BottomSolder, eV6_InternalPlane1, eV6_InternalPlane2, eV6_InternalPlane3, eV6_InternalPlane4, eV6_InternalPlane5, eV6_InternalPlane6, eV6_InternalPlane7, eV6_InternalPlane8, eV6_InternalPlane9, eV6_InternalPlane10, eV6_InternalPlane11, eV6_InternalPlane12, eV6_InternalPlane13, eV6_InternalPlane14, eV6_InternalPlane15, eV6_InternalPlane16, eV6_DrillGuide, eV6_MultiLayer, eV6_ConnectLayer, eV6_BackGroundLayer, eV6_DRCErrorLayer, eV6_HighlightLayer, eV6_GridColor1, eV6_GridColor10, eV6_PadHoleLayer, eV6_ViaHoleLayer);

Enum Type: TV6_PlotLayer - (equiv TPlotLayer)
TV6_PlotLayer = (eV6_NullPlot, eV6_TopLayerPlot, eV6_MidLayer1Plot, eV6_MidLayer2Plot, eV6_MidLayer3Plot, eV6_MidLayer4Plot, eV6_MidLayer5Plot, eV6_MidLayer6Plot, eV6_MidLayer7Plot, eV6_MidLayer8Plot, eV6_MidLayer9Plot, eV6_MidLayer10Plot, eV6_MidLayer11Plot, eV6_MidLayer12Plot, eV6_MidLayer13Plot, eV6_MidLayer14Plot, eV6_MidLayer15Plot, eV6_MidLayer16Plot, eV6_MidLayer17Plot, eV6_MidLayer18Plot, eV6_MidLayer19Plot, eV6_MidLayer20Plot, eV6_MidLayer21Plot, eV6_MidLayer22Plot, eV6_MidLayer23Plot, eV6_MidLayer24Plot, eV6_MidLayer25Plot, eV6_MidLayer26Plot, eV6_MidLayer27Plot, eV6_MidLayer28Plot, eV6_MidLayer29Plot, eV6_MidLayer30Plot, eV6_BottomLayerPlot, eV6_TopOverlayPlot, eV6_BottomOverlayPlot, eV6_TopPastePlot, eV6_BottomPastePlot, eV6_TopSolderPlot, eV6_BottomSolderPlot, eV6_InternalPlane1Plot, eV6_InternalPlane2Plot, eV6_InternalPlane3Plot, eV6_InternalPlane4Plot, eV6_InternalPlane5Plot, eV6_InternalPlane6Plot, eV6_InternalPlane7Plot, eV6_InternalPlane8Plot, eV6_InternalPlane9Plot, eV6_InternalPlane10Plot, eV6_InternalPlane11Plot, eV6_InternalPlane12Plot, eV6_InternalPlane13Plot, eV6_InternalPlane14Plot, eV6_InternalPlane15Plot, eV6_InternalPlane16Plot, eV6_DrillGuide_Top_BottomPlot, eV6_DrillGuide_Top_Mid1Plot, eV6_DrillGuide_Mid2_Mid3Plot, eV6_DrillGuide_Mid4_Mid5Plot, eV6_DrillGuide_Mid6_Mid7Plot, eV6_DrillGuide_Mid8_Mid9Plot, eV6_DrillGuide_Mid10_Mid11Plot, eV6_DrillGuide_Mid12_Mid13Plot, eV6_DrillGuide_Mid14_Mid15Plot, eV6_DrillGuide_Mid16_Mid17Plot, eV6_DrillGuide_Mid18_Mid19Plot, eV6_DrillGuide_Mid20_Mid21Plot, eV6_DrillGuide_Mid22_Mid23Plot, eV6_DrillGuide_Mid24_Mid25Plot, eV6_DrillGuide_Mid26_Mid27Plot, eV6_DrillGuide_Mid28_Mid29Plot, eV6_DrillGuide_Mid30_BottomPlot, eV6_DrillGuide_SpecialPlot, eV6_KeepOutLayerPlot, eV6_Mechanical1Plot, eV6_Mechanical2Plot, eV6_Mechanical3Plot, eV6_Mechanical4Plot, eV6_Mechanical5Plot, eV6_Mechanical6Plot, eV6_Mechanical7Plot, eV6_Mechanical8Plot, eV6_Mechanical9Plot, eV6_Mechanical10Plot, eV6_Mechanical11Plot, eV6_Mechanical12Plot, eV6_Mechanical13Plot, eV6_Mechanical14Plot, eV6_Mechanical15Plot, eV6_Mechanical16Plot, eV6_DrillDrawing_Top_BottomPlot, eV6_DrillDrawing_Top_Mid1Plot, eV6_DrillDrawing_Mid2_Mid3Plot, eV6_DrillDrawing_Mid4_Mid5Plot, eV6_DrillDrawing_Mid6_Mid7Plot, eV6_DrillDrawing_Mid8_Mid9Plot, eV6_DrillDrawing_Mid10_Mid11Plot, eV6_DrillDrawing_Mid12_Mid13Plot, eV6_DrillDrawing_Mid14_Mid15Plot, eV6_DrillDrawing_Mid16_Mid17Plot, eV6_DrillDrawing_Mid18_Mid19Plot, eV6_DrillDrawing_Mid20_Mid21Plot, eV6_DrillDrawing_Mid22_Mid23Plot, eV6_DrillDrawing_Mid24_Mid25Plot, eV6_DrillDrawing_Mid26_Mid27Plot, eV6_DrillDrawing_Mid28_Mid29Plot, eV6_DrillDrawing_Mid30_BottomPlot, eV6_DrillDrawing_SpecialPlot, eV6_TopPadMasterPlot, eV6_BottomPadMasterPlot);

Constant: cLayerStrings - as before
cLayerStrings : Array[TV6_Layer] Of TDynamicString = ('NoLayer', 'TopLayer', 'MidLayer1', 'MidLayer2', 'MidLayer3', 'MidLayer4', 'MidLayer5', 'MidLayer6', 'MidLayer7', 'MidLayer8', 'MidLayer9', 'MidLayer10', 'MidLayer11', 'MidLayer12', 'MidLayer13', 'MidLayer14', 'MidLayer15', 'MidLayer16', 'MidLayer17', 'MidLayer18', 'MidLayer19', 'MidLayer20', 'MidLayer21', 'MidLayer22', 'MidLayer23', 'MidLayer24', 'MidLayer25', 'MidLayer26', 'MidLayer27', 'MidLayer28', 'MidLayer29', 'MidLayer30', 'BottomLayer', 'TopOverlay', 'BottomOverlay', 'TopPaste', 'BottomPaste', 'TopSolder', 'BottomSolder', 'InternalPlane1', 'InternalPlane2', 'InternalPlane3', 'InternalPlane4', 'InternalPlane5', 'InternalPlane6', 'InternalPlane7', 'InternalPlane8', 'InternalPlane9', 'InternalPlane10', 'InternalPlane11', 'InternalPlane12', 'InternalPlane13', 'InternalPlane14', 'InternalPlane15', 'InternalPlane16', 'DrillGuide', 'KeepOutLayer', 'Mechanical1', 'Mechanical2', 'Mechanical3', 'Mechanical4', 'Mechanical5', 'Mechanical6', 'Mechanical7', 'Mechanical8', 'Mechanical9', 'Mechanical10', 'Mechanical11', 'Mechanical12', 'Mechanical13', 'Mechanical14', 'Mechanical15', 'Mechanical16', 'DrillDrawing', 'MultiLayer', 'ConnectLayer', 'BackGroundLayer', 'DRCErrorLayer', 'HighlightLayer', 'GridColor1', 'GridColor10', 'PadHoleLayer', 'ViaHoleLayer');

Constant (V7_Layer): TLayerConstant
TLayerConstant = (cNoLayer, cIgnoreLayer, cTopLayer, cMidLayer1, cMidLayer2, cMidLayer3, cMidLayer4, cMidLayer5, cMidLayer6, cMidLayer7, cMidLayer8, cMidLayer9, cMidLayer10, cMidLayer11, cMidLayer12, cMidLayer13, cMidLayer14, cMidLayer15, cMidLayer16, cMidLayer17, cMidLayer18, cMidLayer19, cMidLayer20, cMidLayer21, cMidLayer22, cMidLayer23, cMidLayer24, cMidLayer25, cMidLayer26, cMidLayer27, cMidLayer28, cMidLayer29, cMidLayer30, cBottomLayer, cTopOverlay, cBottomOverlay, cTopPaste, cBottomPaste, cTopSolder, cBottomSolder, cInternalPlane1, cInternalPlane2, cInternalPlane3, cInternalPlane4, cInternalPlane5, cInternalPlane6, cInternalPlane7, cInternalPlane8, cInternalPlane9, cInternalPlane10, cInternalPlane11, cInternalPlane12, cInternalPlane13, cInternalPlane14, cInternalPlane15, cInternalPlane16, cDrillGuide, cKeepOutLayer, cMechanical1, cMechanical2, cMechanical3, cMechanical4, cMechanical5, cMechanical6, cMechanical7, cMechanical8, cMechanical9, cMechanical10, cMechanical11, cMechanical12, cMechanical13, cMechanical14, cMechanical15, cMechanical16, cDrillDrawing, cMultiLayer, cConnectLayer, cBackGroundLayer, cDRCErrorLayer, cDRCDetailLayer, cHighlightLayer, cGridColor1, cGridColor10, cPadHoleLayer, cViaHoleLayer, cTopPadMasterPlot, cBottomPadMasterPlot, cV7_MidLayers, cAllLayers, cSignalLayers, cInternalPlaneLayers, cElectricalLayers, cMechanicalLayers, cDielectricLayers);