



PowerPoint library for iOS/OSX developers



Key notes

- LibPptx comes as an iOS/OSX compatible framework with following architectures built in: i386, x86_64, armv7, arm64
- iOS compatibility: 8.0+
- OSX compatibility: 10.10+

LibPptx is a library that can write PowerPoint presentations programatically. It doesn't require Microsoft PowerPoint and .NET framework, combines an easy to use and powerful features.

Library can be used to

- Generate a new presentation from scratch
- Extract data from an existing presentation
- Edit an existing presentation

This document contains information on following

- LibPptx features
- Integration guide
- Code snippets

Key features

- Round-trip any Open XML presentation (.pptx file) including all its elements
- Add slides
- Populate text placeholders, for example to create a bullet slide
- Add image to slide at arbitrary position and size
- Add textbox to a slide; manipulate text font size and bold
- Add table to a slide
- Add auto shapes (e.g. polygons, flowchart shapes, etc.) to a slide
- Access and change core document properties such as title and subject

Feature support

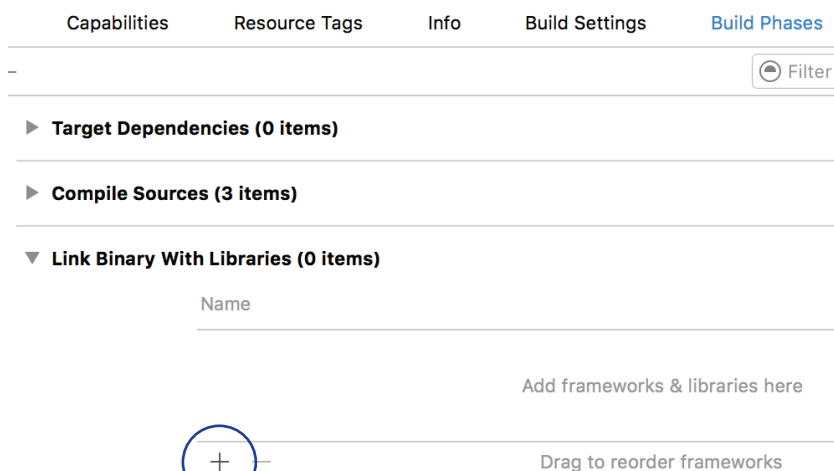
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In order to integrate library into you project, follow next steps

Step 1. Copy libpptx.framework wto the same folder where your *.xcodeproj file resides

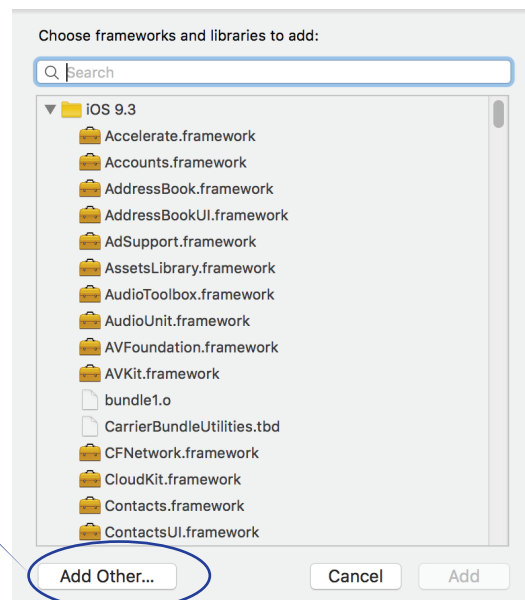
This is needed in order to make XCode toolchain locate static library

Step 2. Open “Build phases” section of your project



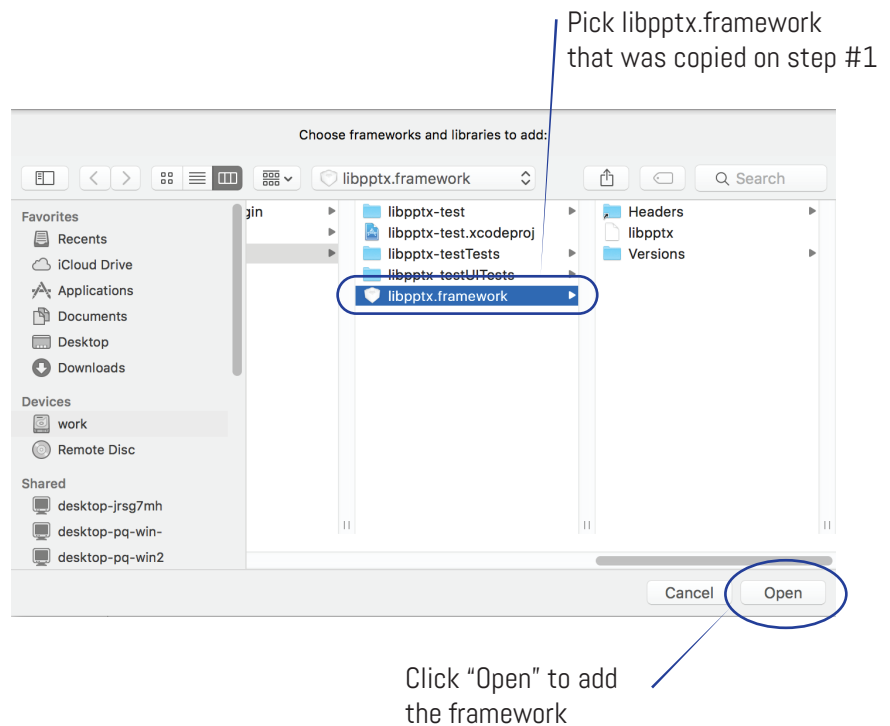
Click “+” to add a framework

Click “Add Other...”

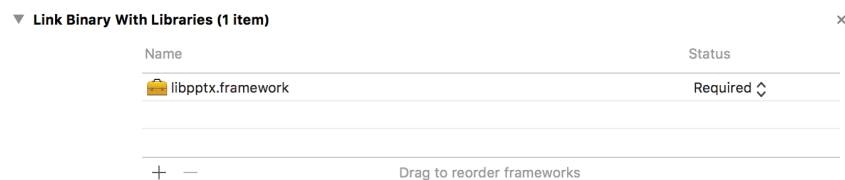


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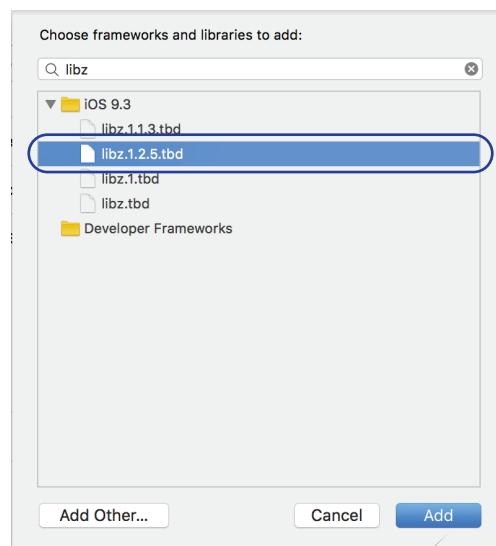
After that is done you should see framework in the list



Step 3. Add auxiliary frameworks "libz" and "libxml2" to your project. Procedure is the same as for Step 2 - Open "Build phases" section of your project, click "+" button and pick those as shown below

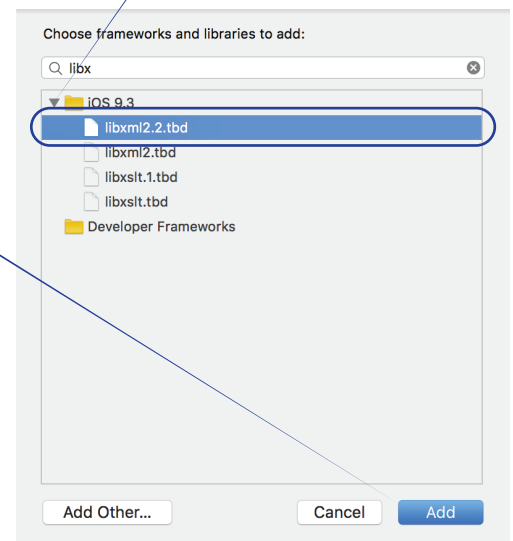
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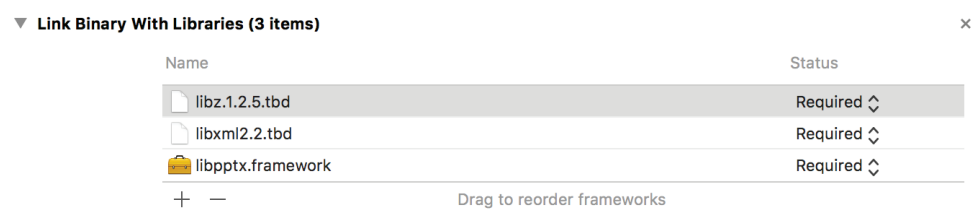


Select frameworks as shown on the image

Confirm by clicking "Add"



After that is done you should see all 3 frameworks in the list

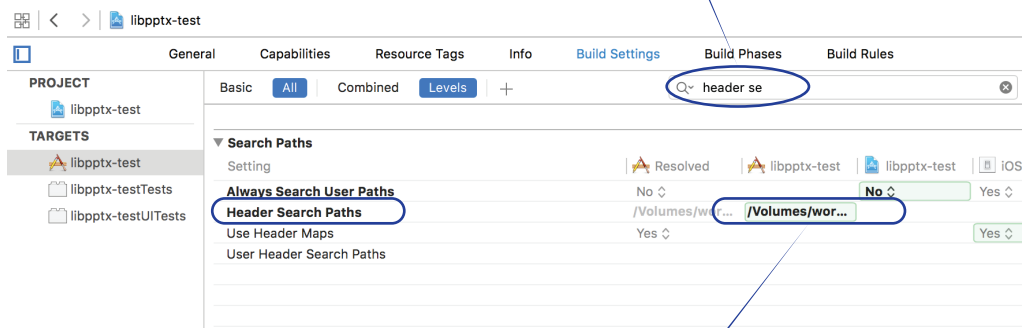


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Step 4. Configure header search paths.
For this open project “Build Settings”

Search for “header search paths”



Once found, double click on cell shown

Add items “\$(PROJECT_DIR)” and “/usr/include/libxml2” to the list as shown below



Make sure “recursive” is switched on for “\$(PROJECT_DIR)”

At this point you are all set to use library

Feature support

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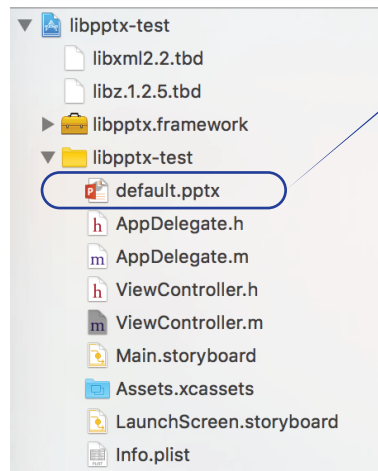
Start using framework is simple. Just import “PptxManager.h” header to your file from where you are going to craft pptx files:

```
#import "libpptx.framework/Headers/PptxManager.h"
```

After this you can start creating presentations.

LibPptx uses presentation template as a basis for creating your own presentations. Distributable package contains “default.pptx” file that you may use for creating your own presentations right away.

Make sure presentation template is added to your project and could be accessed programmatically.



Simpliest way is just to add file this to the project structure

First step after template is added would be getting full path to the template and creating new presentation on its basis

```
// Locating template default.pptx
NSString *urlAddress = [[NSBundle mainBundle] pathForResource:@"default"
ofType:@"pptx"];

// Creating new presentation based on the template
// For trial mode keep license and email empty
PptxManager* manager = [[PptxManager alloc] initWithLicense:@"" andEmail:@""
andTemplate:urlAddress];

// Acquiring pointer to Presentation object
// through which all presentation management is done
Presentation* presentation = [manager presentation];
```

Feature support

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Creating slide is simple as:

```
Slide* slide1 = [presentation addSlideWithLayoutId:2];
```

which requires layout ID.

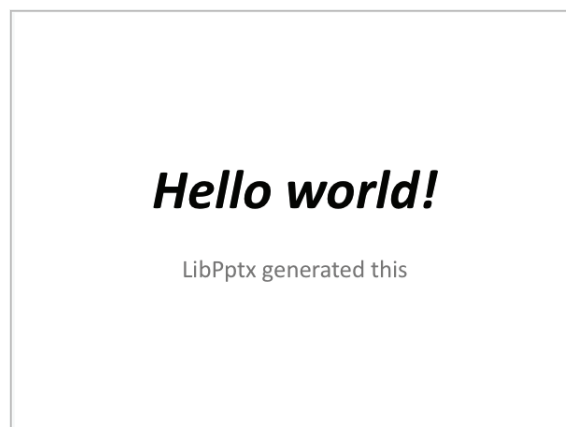
Layout ID identifies slide layout from the presentation template used.

In the template supplied with the framework, first slide with title and subtitle, ID is 2.

Following code snippet will create a title slide with main title containing "Hello world" and subtitle containing text "LibPptx generated this"

```
Title* title = [[slide1 createShapeOfType:[Title class]] withText:@"Hello world!"];  
[[[title getContent] withBold:YES] withItalic:YES] withSizePt:72];  
  
[slide1 addShape: title];  
[slide1 addShape: [[slide1 createShapeOfType:[SubTitle class]] withText:@"LibPptx  
generated this"]];
```

This code will generate slide as shown below



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Creating slide with bullets could be achieved

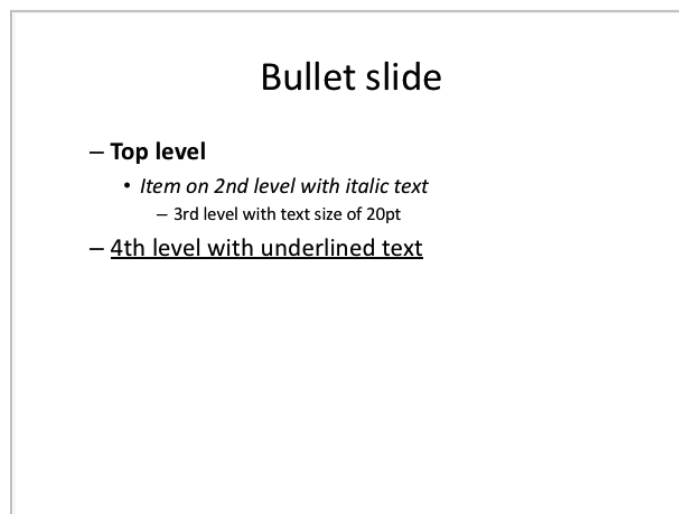
```
Slide* slide2 = [presentation addSlideWithLayoutId:4];

[slide2 addShape:[slide2 createShapeOfType:[SlideTitle class]] withText:@"Bullet slide"];

List* list = [slide2 createShapeOfType:[List class]];
[list addItem:[[[[ListItem new] withText:@"Top level"] withLevel:1] withBold:YES]];
[list addItem:[[[[ListItem new] withText:@"Item on 2nd level with italic text"] withLevel:2] withItalic:YES]];
[list addItem:[[[[ListItem new] withText:@"3rd level with text size of 20pt"] withLevel:3] withSizePt:20]];
[list addItem:[[[[ListItem new] withText:@"4th level with underlined text"] withLevel:1] withUnderline:UNDERLINE_DBL]];
[slide2 addShape:list];
```

For this kind of slide layout ID 4 have to be used.

This code will generate slide as shown below



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Creating slides with multiple paragraphs could be done as shown below

```
Slide* slide3 = [presentation addSlideWithLayoutId:0];
[slide3 addShape:[slide3 createShapeOfType:[SlideTitle class]] withText:@"Textbox exam-
ple"];

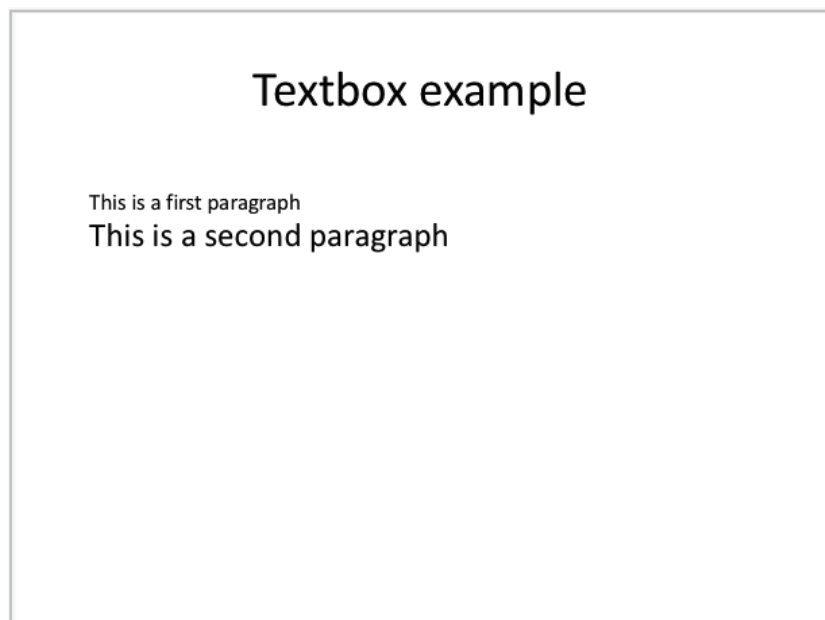
TextBox* textBox = [slide3 createShapeOfType:[TextBox class]];

[[[textBox
  withWidth:[Inch of:8]] withHeight:[Inch of:2]]
  withLeft:[Inch of:2]] withTop:[Inch of:6]];

[textBox addItem:[Paragraph new] withText:@"This is a first paragraph"] withSizePt:20]
withAlign:ALIGN_LEFT];
[textBox addItem:[Paragraph new] withText:@"This is a second paragraph"] withSizePt:30]
withAlign:ALIGN_LEFT];
[slide3 addShape:textBox];
```

For this kind of slide layout ID 0 have to be used.

This code will generate slide as shown below



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Creating slides with images could be done as shown below

```
Slide* slide4 = [presentation addSlideWithLayoutId:0];
[slide4 addShape:[slide4 createShapeOfType:[SlideTitle class]] withText:@"Picture exam-
ple"];

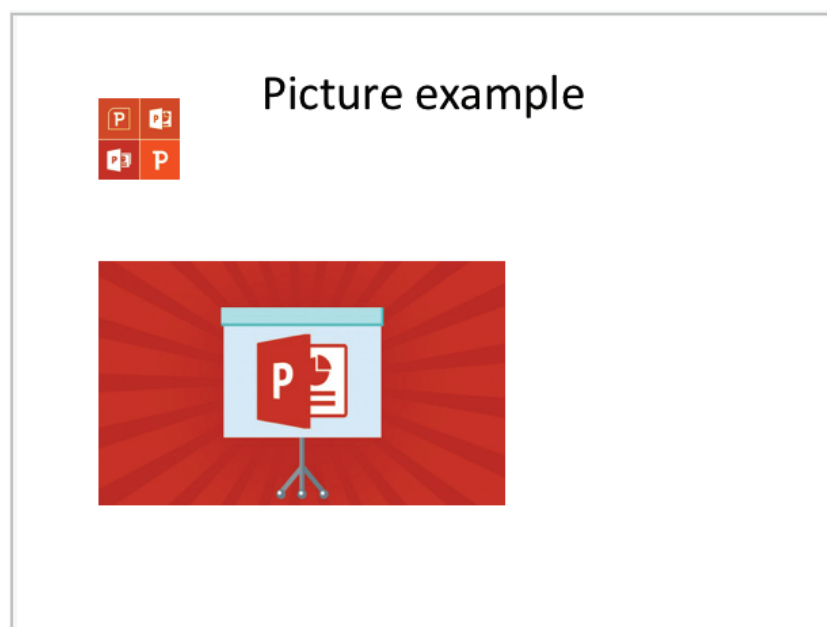
Image* image1 = [[slide4 createShapeOfType:[Image class]]
                 withImageUrl:[NSURL URLWithString:@"./work/ppt1.jpg"]];
[[[image1 withTop:[Inch of: 1]] withLeft:[Inch of:1]] withWidth:[Inch of:1]] withHeight:[Inch
of:1]];

Image* image2 = [[slide4 createShapeOfType:[Image class]]
                 withImageUrl:[NSURL URLWithString:@"./work/ppt2.jpg"]];
[[[image2 withTop:[Inch of: 3]] withLeft:[Inch of:1]] withWidth:[Inch of:5]] withHeight:[Inch
of:3]];

[slide4 addShape:image1];
[slide4 addShape:image2];
```

For this kind of slide layout ID 0 have to be used.

This code will generate slide as shown below



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Creating slides with autoshapes could be done as shown below

```
Slide* slide5 = [presentation addSlideWithLayoutId:4];

[slide5 addShape:[slide5 createShapeOfType:[SlideTitle class]] withText:@"Autoshapes"];

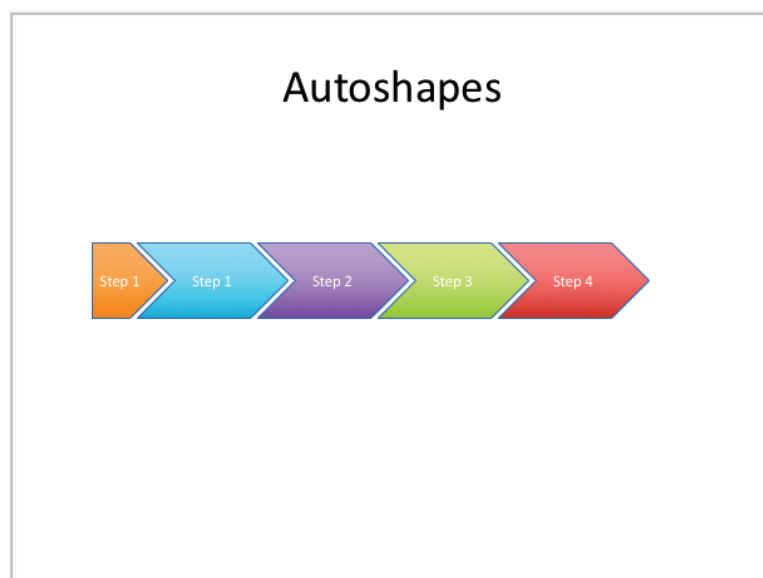
AutoShape* as1 = [[slide5 createShapeOfType:[AutoShape class]] withType:@"AS_PENTAGON"];
[[[as1 withLeft:[Inch of:1]] withTop:[Inch of:3]] withWidth:[Inch of:1]] withHeight:[Inch of:1]];
[[[as1 withText:@"Step 1"] getContent] withSizePt:15];
[[[as1 getShapeStyle] fill] withSchemeClr:@"accent6"];
[slide5 addShape:as1];

float d = 0.4, x = 1.6;
for (int i = 0 ; i < 4 ; i++)
{
    AutoShape* as = [[slide5 createShapeOfType:[AutoShape class]] withType:@"AS_CHEVRON"];
    [[[as withLeft:[Inch of:(x + i*(2.0-d))]] withTop:[Inch of:3]] withWidth:[Inch of:2]] withHeight:[Inch of:1]];
    [[[as withText:[NSString stringWithFormat:@"Step %d", i+1]] getContent] withSizePt:15];
    [[[as getShapeStyle] fill] withSchemeClr:[NSString stringWithFormat:@"accent%d", (5-i)]];

    [slide5 addShape:as];
}
```

For this kind of slide layout ID 4 have to be used.

This code will generate slide as shown below



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Creating slides with tables could be done as shown below

```
Slide* s6 = [presentation addSlideWithLayoutId:0];
[s6 addShape:[s6 createShapeOfType:[SlideTitle class]] withText:@"Slide title 6"]];

Table* table = [s6 createShapeOfType:[Table class]];

[[table withFirstRow:YES] withBandedRows:YES];
[table withColumns:@[[Inch of:1], [Inch of:2], [Inch of:3]]];

[[[table withLeft:[Inch of:1]] withTop:[Inch of:2]] withWidth:[Inch of:5]] withHeight:[Inch of:5]];

TableRow* tr1 = [[table addRow] withHeight:[Centimeter of:1]];
[tr1 addCell:[TableCell alloc] initWithText:@"Header 1"];
[tr1 addCell:[TableCell alloc] initWithText:@"Header 2" withColSpan:2];

TableRow* tr2 = [[table addRow] withHeight:[Centimeter of:1]];
[tr2 addCell:[TableCell alloc] initWithText:@"Lorem ipsum"];
[tr2 addCell:[TableCell alloc] initWithText:@"dolor sit amet"];
[tr2 addCell:[TableCell alloc] initWithText:@"consectetur"];

TableRow* tr3 = [[table addRow] withHeight:[Centimeter of:1]];
[tr3 addCell:[TableCell alloc] initWithText:@"adipiscing elit"];
[tr3 addCell:[TableCell alloc] initWithText:@"sed do eiusmod tempor"];
[tr3 addCell:[TableCell alloc] initWithText:@"incididunt ut labore et dolore magna aliqua"]];

[s6 addShape:table];
```

For this kind of slide layout ID 0 have to be used.

This code will generate slide as shown below

Tables

Header 1	Header 2	
Lorem ipsum	dolor sit amet	consectetur
adipiscing elit	sed do eiusmod tempor	incididunt ut labore et dolore magna aliqua

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Creating slides with charts could be done as shown below

```
Slide* s7 = [presentation addSlideWithLayoutId:0];
```

```
[s7 addShape:[s7 createShapeOfType:[SlideTitle class]] withText:@"Chart example"];
BarChart* chart = [s7 createShapeOfType:[BarChart class]];
```

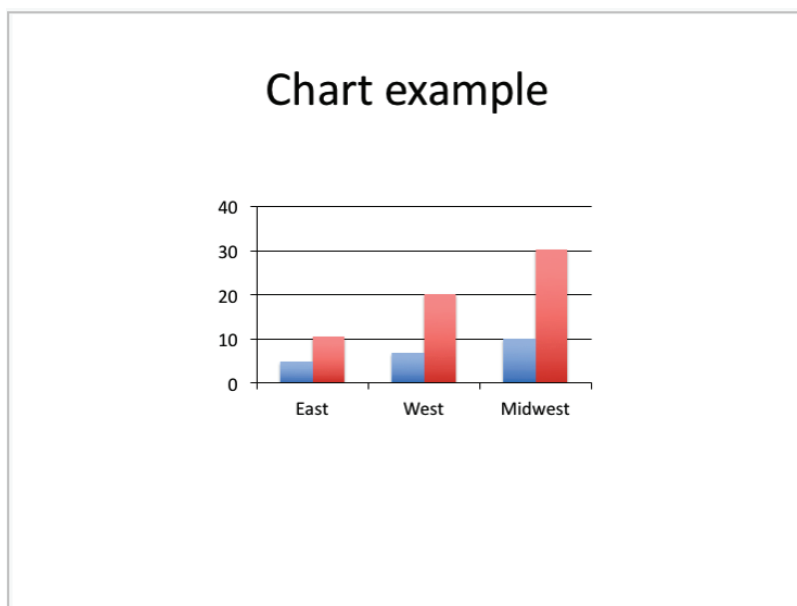
```
ChartData* chartData = [[ChartData alloc]
initWithCategories:@[@"East", @"West", @"Midwest"]
addSeriesWithName:@"Series 1" andValues:@[@10.5, @20.2, @30.3]
addSeriesWithName:@"Series 2" andValues:@[@5, @7, @10]];
```

```
[chart withChartData:chartData];
[[[chart withTop:[Inch of:2.2]] withLeft:[Inch of:2.5]] withWidth:[Inch of:5] withHeight:[Inch of:3]];
```

```
[s7 addShape:chart];
```

For this kind of slide layout ID 0 have to be used.

This code will generate slide as shown below



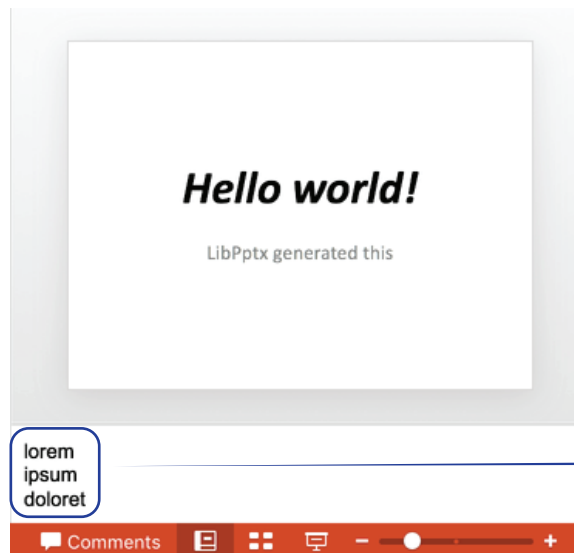
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Adding notes to slides is as easy as following

```
[[slide1 notesSlide] addShape:[[[SlideNoteText alloc] init] withText:@"lorem\nipsum\ndo-loret"]];
```

This code will generate slide as shown below



Notes are shown in notes area