Pdf Downloader & Generator in iOS

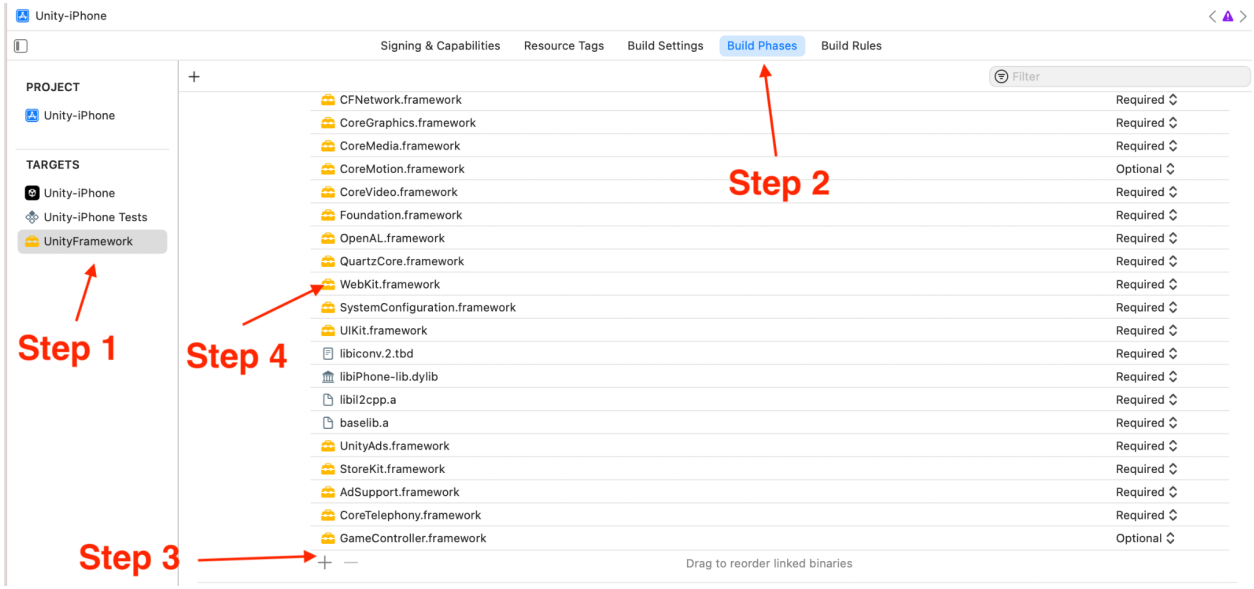
This plugin will allow developers to download and cache pdfs from the server and view pdfs inside the unity scene. Also developers can create their own pdfs in iOS applications using this plugin and load it in unity scene. This plugin will also provide developers the necessary C# interfaces for downloading, caching, generating and loading pdf files in unity scene. Read this document carefully. Take a look at the DemoScene in Scenes folder.

SetUp

Import the asset package in the assets folder. Ensure that following files exists in Plugins/iOS/ folder:

1. PdfConverter.h
2. PdfConverter.mm
3. PdfCacheWrapper.h
4. PdfCacheWrapper.m
5. PdfDownloadOperation.h
6. PdfDownloadOperation.m
7. WebViewVC.h
8. WebViewVC.mm

Open the project in Xcode. Add **WebKit.framework** in the project. To add the same click on '+' button at bottom under the **Link Binary with Libraries** section in the **Build Phases** tab of the **Unity-Framework** Target. Please see screenshot below:



How Plugin Works :

When the user calls a plugin to download a pdf with a url then the plugin will first check in the In Memory Cache whether any pdf for the url exists or not. If it exists then the plugin will get the pdf path from the cache and get the pdf from the device local storage. If it does not exist in local storage then the plugin will download the pdf from the server then save it in local storage and then will communicate the same to Unity. Whole process of downloading pdfs , storing and retrieving images happens in the background thread only so no impact on the main thread.

API to generate and access Pdf

1. To create pdf use following API :

void createPdf(string fileName,float pageHeight,float pageWidth)

This API allows developers to generate pdf in iOS applications. Developers need to provide following parameters in this API in the same order:

1. **fileName**: Argument to get name of the file. File will be created with this name. If a file already exists with this name then it will be replaced. Plugin will add ".pdf" itself so developers need not to concatenate .pdf in file name.
2. **pageHeight**: Argument to set the height of the page for the pdf file.
3. **pageWidth**: Argument to set the width of the page for the pdf file.

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2. To create new page inside pdf use following API :

void createNewPage()

This API will add another page to the pdf. So developers can add as many as pages as they need.

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3. To write text inside pdf use following API :

void writeTextToPdf(string data,float xPos,float yPos,float width,float height,string hexColor,float fontSize, int fontType)

This API allows developers to write text inside the pdf at a specified location in iOS applications. Developers need to provide following parameters in this API in the same order:

1. **data**: Text need to be written in pdf
2. **xPos**: xPosition of text from left from where text will start
3. **yPos**: yPosition of text from top from where text will start
4. **width:** maximum width which needs to be given to this text
5. **height:** maximum height which needs to be given to this text
6. **hexColor**: hexadecimal value of color which needs to be set for text
7. **fontSize:** size which needs to be set for the text
8. **fontType:** font type like normal, bold and italic. 1 for normal, 2 for bold and 3 for italic

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4. To write image inside pdf use following API :

void writeImageToPdf(string imagePath,float xPos,float yPos,float imageWidth,float imageHeight)

This API allows developers to write image inside the pdf at a specified location in iOS applications. Developers need to provide following parameters in this API in the same order:

1. **imagePath**: path to the image which needs to be written
2. **xPos**: xPosition of image from left from where text will start
3. **yPos**: yPosition of image from top from where text will start
4. **width:** width which needs to be given to this image
5. **height:** height which needs to be given to this image

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5. To create image path from image use following API :

void SaveTextutreToApplicationPathAndGetPath(Texture2D texture, string imageName)

If developers want to save an image and get it's path then developers can use this api. This API accepts a texture and the name with which file needs to be saved. It will return a path to the file.

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6. To end the pdf use following API :

void endPdf()

This API will end the pdf and save it inside the applications directory.

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7. To share the pdf use following API :

void sharePdfFile()

This API will allow developers to share the pdf which is created recently.
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8. API to load pdf with filename in unity scene :

void loadPdfInsideUnityWithFileName(string fileName, float viewOriginX, float viewOriginY, float viewWidth, float viewHeight)

To load a pdf file by passing filename in your iOS application use this API. Using this api will load the pdf inside the current scene according to the frame parameters provided in the API. Developers need to provide following parameters in this API in the same order:

1. **fileName**: Name of the pdf file which needs to be loaded. For example, to load a pdf file created with the first API, provide the name of the file in this API and it will load that specific pdf if it exists. Please add .pdf in the filename. So if filename is “abc” then provide “abc.pdf”
2. **viewOriginX**: Provide x position for the frame
3. **viewOriginY**: Provide y position for the frame
4. **viewWidth**: Provide width of the frame

5. viewHeight: Provide height of the frame

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9. API to load pdf with filename in new page :

void loadPdfInNewPageWithFileName(string fileName, string btnTitle, string title)

To load a pdf file by passing filename in your iOS application as a new page use this API. Using this api will load the pdf in a new page over the current scene. Developers need to provide following parameters in this API in the same order:

1. **fileName**: Name of the pdf file which needs to be loaded. For example, to load a pdf file created with the first API, provide the name of the file in

this API and it will load that specific pdf if it exists. Please add .pdf in the filename. So if filename is “abc” then provide “abc.pdf”

2. **btnTitle**: New page has dismiss button at the top left corner of the page. To set the title of this button, provide a name in this parameter.
3. **title**: New page has a page title in the middle at top. To set this title, provide a name in this parameter.

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10. API to download pdf with url :

void downloadPdf(string fileUrl, IPdfDownloader handler)

To download a pdf file in background so that the main UI does not get hampered use this API. To download a file pass the file url along with a handler which will be informed whenever the file gets downloaded. If you want to download multiple files together, invoke this method multiple times with each file url. Plugin will also cache the pdf in local storage so if the developer invokes this API with an already cached file then it will fetch the pdf from local storage instead of the server. Please refer to **PdfConverter.cs** in the demo scene. Developers need to provide following parameters in this API in the same order:

1. **fileUrl**: This is a server url for downloading the file.
2. **handler**: A handler to get the callback from plugin that pdf for the url has been downloaded.

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11. API to load pdf with Url in unity scene :

void loadPdfInsideUnityWithUrl(string fileUrl, float viewOriginX, float viewOriginY, float viewWidth, float viewHeight)

To load a pdf file by passing a server url in your iOS application use this API. Using this api will load the pdf inside the current scene according to the frame parameters provided in the API. Before loading any pdf it should be downloaded so before using any load api please download the file else won't be available. Developers need to provide following parameters in this API in the same order:

1. **fileUrl**: Provide server url of the pdf with which file was downloaded. Plugin will keep a mapping between file url and path to the local location of the file.
2. **viewOriginX**: Provide x position for the frame
3. **viewOriginY**: Provide y position for the frame
4. **viewWidth**: Provide width of the frame
5. **viewHeight**: Provide height of the frame

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12. API to load pdf with Url in new page :

void loadPdfInNewPageWithUrl(string fileUrl, string btnTitle, string title)

To load a pdf file by passing a server url in your iOS application as a new page use this API. Before loading any pdf it should be downloaded so before using any load api please download the file else won't be available. Using this api will load the pdf in a new page over the current scene. Developers need to provide following parameters in this API in the same order:

1. **fileUrl**: Provide server url of the pdf with which file was downloaded. Plugin will keep a mapping between file url and path to the local location of the file.
2. **btnTitle**: New page has dismiss button at the top left corner of the page. To set the title of this button, provide a name in this parameter.
3. **title**: New page has a page title in the middle at top. To set this title, provide a name in this parameter.

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13. API to load pdf with Content in unity scene :

void loadPdfInsideUnityWithUrl(string fileContent, float viewOriginX, float viewOriginY, float viewWidth, float viewHeight)

To load a pdf file by passing content of pdf in your iOS application use this API. Using this api will load the pdf inside the current scene according to the frame parameters provided in the API. When developers initiate downloading with download api in the handler, developers will receive the content of the pdf file which is downloaded in string format. Developer can pass this string in this api to load the pdf. Developers need to provide following parameters in this API in the same order:

1. **fileContent**: Provide string which is received in callback after downloading the file.
2. **viewOriginX**: Provide x position for the frame
3. **viewOriginY**: Provide y position for the frame
4. **viewWidth**: Provide width of the frame
5. **viewHeight**: Provide height of the frame

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14. API to load pdf with Content in new page :

void loadPdfInNewPageWithUrl(string fileContent, string btnTitle, string title)

To load a pdf file by passing content of pdf in your iOS application as a new page use this API. When developers initiate downloading with download api in the handler, developers will receive the content of the pdf file which is downloaded in string format. Developer can pass this string in this api to load the pdf. Using this api will load the pdf in a new page over the current scene. Developers need to provide following parameters in this API in the same order:

1. **fileContent**: Provide string which is received in callback after downloading the file.
2. **btnTitle**: New page has dismiss button at the top left corner of the page. To set the title of this button, provide a name in this parameter.
3. **title**: New page has a page title in the middle at top. To set this title, provide a name in this parameter.

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15. API to remove pdf from unity scene :

void removePdf FromUnityScreen()

To remove the pdf from the unity screen use this API

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16. API to set callback method :

void SetCallBackMethod(string msgReceivingGameObjectName, string msgReceivingMethodName)

Everytime download of a pdf completes, the plugin will send a message to unity about download completion. To receive the message developers need to add a gameObject in the current screen and add script **UnityReceiveMessages.cs** to it similar to what is in the demo scene. Then pass the name of gameObject and method in the **SetCallbackMethod** method. Please refer to **PdfConverter.cs**. Whenever a pdf will be downloaded or fetched from local storage this method will receive a message and send the pdf url and pdf content in encoded string format corresponding to that url to **PdfConverterBridge.cs** which will in return call the appropriate handler for that particular image with image url and image bytes. So the handler can use the image by converting it to texture. If some error occurred then an error message will be communicated to the handler in the **errorMessage** parameter of the interface.

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17. API to get path of saved file :

void getSavedPdfFilePath()

To get the path of the file which has been created using the plugin api developers can use this api. It will send the path of the file to unity via callback channel set up in previous api.

For Illustration on how to use the above APIs , look into the scripts **PdfConverter.cs** and **PdfConverterBridge.cs**.

Please contact us guptamayank516@gmail.com in case of any query or concern. Please share your valuable feedback on Unity asset store.