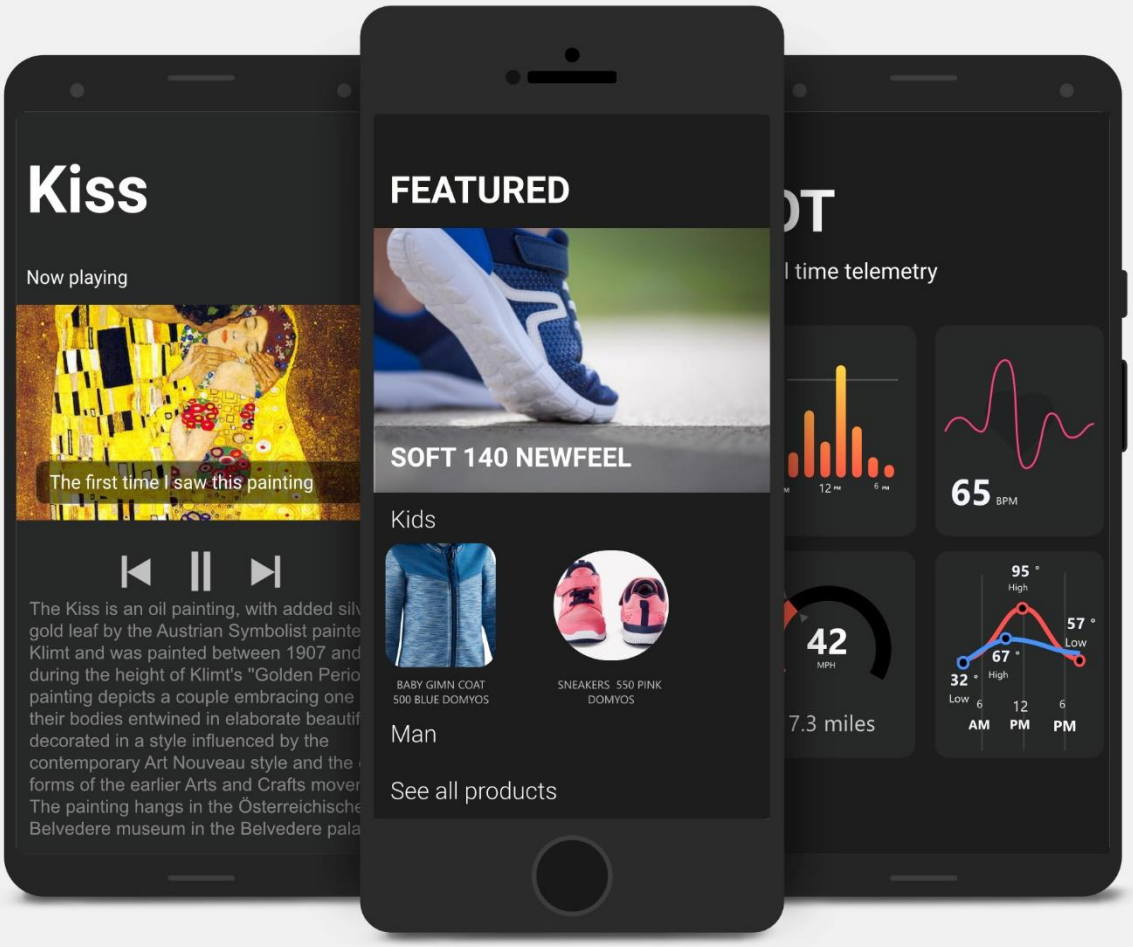
SYSDEV KALIPSO

NEW KALIPSO v5.0

Boost your productivity with these great features



iOS

SYSDEVKALIPSO.COM

Kalipso Studio v5.0 is ready to be used

Sysdev Mobile is pleased to announce that the final version of Kalipso Studio v5.0 is now available. This new version was already submitted to tests and evaluations under a previous beta version and is ready to be used by our customers.

If you are a regular user of Kalipso, this is a great opportunity for you to update your product and try out all the features in new exciting projects.

How to download Kalipso Studio v5.0?

If you wish to try it, download it here:

https://www.sysdevkalipso.com/en/go/free-trial

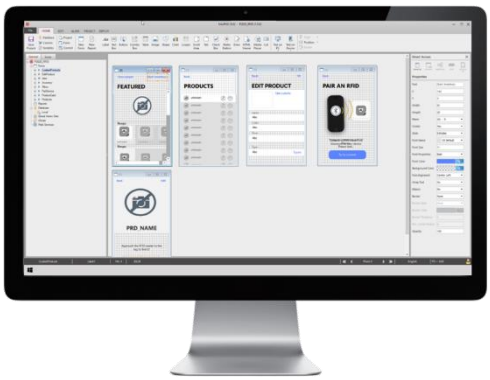
If you are a customer with a valid login in our website, download it here:

https://www.sysdevkalipso.com/en/go/kalipso-versions1

Our team of developers looks forward to receiving your feedback on this new version of Kalipso!

ENVIRONMENT

NEW ENVIRONMENT



Thinking in the user experience, Kalipso v5.0 has a completely new environment. Simpler, faster, and carefully crafted, this new look makes sure you have everything you need without having to look for it.

New icons were added, as well as a new tool to edit them. This icon editor allows the user to create its own icons, as well as change its colors, among other things.

Modern and intuitive, Kalipso becomes more and more the choice for developing mobile apps.

PERFORMANCE

Time is money and we want to make sure you maximize this tool to your benefits. With that in mind, this new version brings several performance improvements.

Some of the processes who have been improved, are:

- Saving the project;
- Testing the project;
- Managing Actions;
- Find;
- KClient code execution.

And if you have linked projects, the Designer now detects linked project updates while your main project is open and automatically refreshes the linked project.

UNDO

One of the most requested features from Kalipso developers was the Undo in the Designer.

Now you can Undo the changes done in the graphical design area and in the Actions.

GROUP & LOCK

For easier management of your APP UI, you can now Group Controls, so they are always moved together as if they were one.

While managing the controls in the form, you can also Lock the controls so that they cannot be selected or moved by mistake. This is very handful when having overlapping controls or a crowded form.

FRAME CONTROLS

New UI interfaces use lots of transparencies and sometimes it is hard to track the size of the controls at design time. Now you can use frames around the controls to see their sizes.

ORGANIZE YOUR PROJECT TREE

Create folders in your project tree and get those big projects better organized.

FULL UNICODE

In the Designer, some text entries were limited to the Charset defined in the Settings. Now Kalipso Designer has Full Unicode support, so no more need to change the Designer Charset when

developing for regions of the world with different charsets.

STYLE

AMAZING UI

Kalipso now has Styles that will allow you to make your Apps more attractive, clever and flexible.

Have a Designer in your company, have them create styles for you, then associate your project to a Style and enjoy the new UI for your App.

When you already are using styles and need to make a refresh to your App UI, just update your style and that's it, instant brand new UI in your App.

STYLE EDITOR

Take a peek on our Style Editor, easy to use for anyone, even if you are not a Designer.

POWER OF ADOBE XD

If are a more advanced Designer, then just use our plugin for Adobe XD.

Use the power of Adobe XD to create fantastic styles for Kalipso.

ICON EDITOR

You have an icon which need to be adjusted?

With the new Icon Editor you can:

- Recolor
- Rotate
- Add a Shape
- Add an Overlay Icon

DATE PICKER

Date picker associated to Keyboard action has been updated on Android to use a Calendar Picker for easier date picking.

POPUPS

ShowPopup() has several new options.

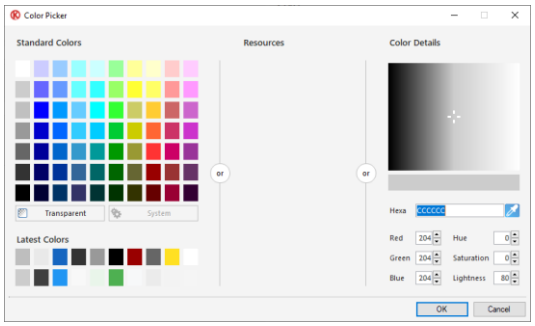
- Define the popup UI appearance
- Control the Popup position
- Associate an ID to each option to make it easier to track the option selected by the user

STATUS WINDOW

ShowStatusWindow() has several new options.

- Define the Status Window UI appearance
- Or just inherit the project defined UI for Status Window.

CLEVER COLOR PICKER



Use a quick color picker or expand to a full featured color picker makes it easier to work with colors.

If you just want to pick a color you are already using in your App, then use the new Dropper to click on the color you want.

FORMS

SECOND SCREEN

On Android devices with a second screen, you can now use PresentForm() action and display a second form on the secondary Display.

Typical use case for POS systems with dual display.

NEW PROPERTIES

If one could say the power was already in your hands, you now have full control:

- You can now define in each form the allowed orientations or just inherit the project definitions.
- For non-full screen forms you can now define if clicking outside the form triggers the “X Button Clicked” Event.
- Background Image can now be changed dynamically with SetProperty Action

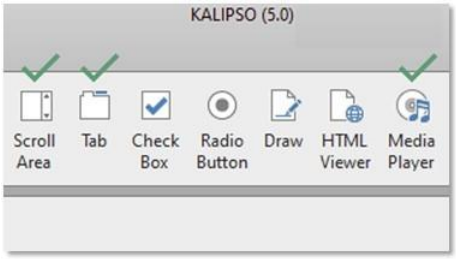
NEW EVENTS

App Pausing / Resuming

These new events allow you to be notified when your App is being Paused because the user pressed the Home button or just turned the device Off, and when the user reactivated your App. You can now use these events to conserve battery power, for example Disable GPS if you don’t need it when your App is not in the foreground, or check for updates on your server when the user reactivates your App are some of the uses for these events.

CONTROLS

NEW CONTROLS



Several new controls are now available, giving you a better experience creating apps.

MEDIA PLAYER CONTROL

Play videos within your App or just play an Audio file with the new Media Player control

SCROLL AREA

Use the new Scroll control to create a scrollable area in your Forms.

Use the Scroll Control sections to have dynamically collapsible sections to show/hide extra content on your App.

TAB CONTROL

You can now have a TAB control to have extra content on your forms.

Have your user tap on the Tab header or just swipe left and right to change between tabs.

NEW FEATURES ON EXISTING CONTROLS

Existing controls have also been improved with several new features.

LOOPER

Loopers have become more powerful and easier to Design. Right click on the Looper and select “Edit Container Cell” to open a new window to edit the cell in a new Window.

- Use the new “Item Added Background Thread” event to Add code associated to each cell without compromising App responsiveness. The new CURRENTINDEX keyword combined with the SetProperty() action give you access to the Looper Cell.

- Looper Cells can have their size changed dynamically and independently

TABLE CONTROL IN REPORTS

The new Table Control in Reports makes it a lot easier to print out table details in a report. Just pick the columns you want to print.

IMAGE FROM URL

Now it is even easier to show an image that is available on a web server. Just link the Image Control to a URL and Kalipso will handle the downloading and displaying for you.

CONTROLS WITH TRANSPARENCY

Now you can customize your controls and give them transparency. Just set the opacity level in the control properties.

CONTROLS PROPERTIES AND ACTIONS

Related properties

- **Vertical alignment**
  Labels and Inputs now have vertical alignment. Comboboxes and Checkboxes with Custom Position also have vertical alignment.

- **TextBox with project decimal separator**
  Text boxes can now use the project defined decimal separator instead of the dot.

- **Custom Image**
  You can now define the images to represent the arrow for comboboxes or the checkbox mark for checkboxes.

- **Custom Position**
  Comboboxes and CheckBoxes can be customized to define where the image and the text appear inside the control area.

- **Custom Border**
  Comboboxes and CheckBoxes now can also have Custom Borders.

- **Hint and Disabled Colors**
  In Textboxes you can now define the color for the Hint Text and the

color for the text when the control is disabled.

- **WordWrap in Images**
  In Images you can now have longer texts by having word wrap applied to the text.

- **Text Ellipsis**
  Let the user know that there is more text than visible on the screen by enabling “Ellipsis” in Labels so if the text does not fit, the “…” are added at the end of the label.

- **Dock Columns in Table Control**
  Have one or more columns on your table control that you want to keep visible when the user scroll horizontally? Now you can dock columns in the table control.

SECURITY

Security is now more important than ever. Several new features have been added to Kalipso to provide even more security to your Apps

NEW ENCRYPTION ACTIONS

New actions have been created to give you access to standard encryption functions that can be used to interchange information with other systems:

- Encrypt Symmetric
- Decrypt Symmetric
- Encrypt Asymmetric
- Decrypt Asymmetric

CERTIFICATE PINNING

When you call a webservice with WebSerivceRun() or HTTPRequest() you can ensure that your App is contacting the correct server by pinning the request to the server certificate.

PROXY SETTINGS

When you call a webservice with WebSerivceRun() or HTTPRequest() you can now also define the Proxy server to use for those requests to comply with your customer security requirements.

SSL SOCKETS

The SocketConnect() action has been enhanced to allow you to establish secure connections to a server using SSL sockets.

When you need extra security, validate the server certificate using Certificate Pinning.

And if the server requires client authentication, you can provide a client certificate to establish an authenticated SSL connection.

MISCOMMUNICATOR

MISCommunicator has also received several security updates.

TLS/SSL connections
Now when you setup your connections to MISCommunicator you can increase security by configuring your connection to

use TLS/SSL to encrypt your data with even more security.

Extra authentication is also available when using TLS/SSL:

- Use client certificates to authentication your applications against MISCommunicator
- Use server certificates to ensure your applications that they are connected to the right MISCommunicator server

Connection Level Permissions
When you create a new connection in MISCommunicator, you can now define what are the functions that can be executed by that connection.
If you just want to access a specific database, then give permission to access that database only, and no permission for local file access or other types of operations.

Connection Level Permissions
Use MISCommunicator to validate a user login with Active Directory on the server where MISCommunicator is installed.

NOTIFICATIONS

PUSH NOTIFICATIONS

Push notifications have also received some new features.

Send Test Messages to iOS devices
You could already send test messages to Android and Windows devices from the Designer, now you can also send test messages to iOS.

Firebase for iOS
Make life easier to your server side developer. If you need to send Push Notifications to Android and iOS devices, you can now configure Kalipso to use Firebase also on iOS. This means your server just needs to talk to Firebase Cloud Messaging service to send messages to both Android and iOS devices.

NFC

NFC ON IOS

You could already use NFC in Kalipso for reading tags in iOS.

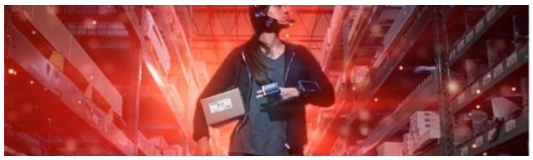
The new Writing capabilities added by Apple to iOS 13 are now available in Kalipso so you can write to NFC tags from an iOS device.

IMAGE PROCESSING

OCR

Have an image with text that you want to recognize? Now you can call OCRExecute() to recognize and extract text from an image file.

BARCODE RECOGNITION



Also need to recognize barcodes on an image? Just call BarcodeRecognize() and have Kalipso recognize one or multiple barcodes in a single image file.

DOCUMENT DETECTION

Do you have a photo from a document? You can now call ExtractDocument() to have Kalipso to try to detect the 4 document corners and extract an image with just that document.

Need to make it gray scale or black and white? ExtractDocument() can also do that for you.

CORTEX SCAN

Kalipso has now integrated the Cortex Image Barcode Scanner.

If you need to scan barcodes with your device Camera, but the Zxing barcode scanner does not have the required performance and reliability, you can now use a professional grade Barcode Scanner in your App.

A set of new actions Cortex…() have been created to have Cortex SDK integrated into Kalipso, allowing you to easily use this SDK in your Apps.

Note: Runtime licenses for use with Kalipso Studio SDK need to be acquired to cortex scan. You can get more information from:

https://www.tachyoniq.com

AUDIO RECORD

New AudioRecord() action can now be used to record Audio captured by the device and save it to a file.

INTERNET OF THINGS

NEW WAYS TO MANAGE

The Internet of Things (IoT) is considered one of the most profound transitions in technology today, creating unprecedented opportunities for businesses.

New GPIO actions have been added to Android and Win10 clients to allow you to interact with the device GPIO ports.

BLUETOOTH LOW ENERGY AND BEACONS

BLUETOOTH LOW ENERGY

Kalipso now has new actions to allow you to interact with Bluetooth Low Energy devices. Scan for BLE devices, send and receive data to those devices.

EDDYSTONE & IBEACON

New actions are now also available to use Bluetooth Low Energy Beacons. If you need to work with Eddystone or iBeacon devices, then you can use the new actions provided.

Detect when you enter the proximity of a beacon and when you leave and take action.

IPV6

Kalipso communication actions now have support for IPV6 protocol.

PRINT PDF

Now you can use Kalipso Print action to print PDF files to the same graphical printers you already used to print Reports.

Just use the Print() action and select a PDF file instead of a Report to print it.

VOICE OFFLINE

If you download the language pack on your Android device, you can now tell Kalipso to “Prefer Offline Recognition” when using the Native ASR.

GPS

GPS AS A SENSOR

If you need device regular location updates, now instead of using GPSGetCoordinates() action, you can use SensorEnable() to activate a Location sensor that regularly calls an Event to provide new coordinates.

ANDROID EXTERNAL APKs

EVEN MORE INTEGRATION

Now you can have an external JAVA library compiled as a JAR file or simply an Android APK, and invoke functions directly from Kalipso. If you need to have control or specific hardware or other type of SDKs from Kalipso, you can now create your own library for Android, compile an APK, put it in “Files To Send” folder of your Kalipso project and then just invoke functions from your library.

BarcodeConnect can now also be linked to an external library that implements a JAVA interface provided with Kalipso and have the same Barcode…() actions you already use, work with other Barcode scanners.

A new set of generic RFID actions have been created to achieve the same goal. You can now link RFIDConnect to an external library that implements a JAVA interface provided with Kalipso use the other RFID…() actions.

With this new JAVA connectivity, now you have the ability to make your own

connections to specific hardware and use it in your Kalipso projects.

SERVICES

EXECUTE ACTIONSSET AS A SERVICE

If you have an ActionSet that you want to keep running for a few minutes, even if the user moves away from your App, you can now run an ActionSet as a service using StartService in immediate mode. This will keep it running if the user taps the Home button for example, allowing it to finish what it was doing.

EXECUTE A PERIODIC SERVICE

Periodic services allow you to invoke code within a time period even when the App is not active. Useful if you need to check regularly for updates on a server and notify the user if needed.

EXECUTE A DELAYED SERVICE

Need to make something execute within some time, even if the user exited your App. Just use StartService in Delay mode.

RESOURCES

IMAGE RESOURCES

Project images are now resources that can be easily reused and easily changed.

Need to access an image resource dynamically? You no longer need to put it in “Files To Send” folder and duplicate storage usage, just use the new Resource() function.

FONT RESOURCES

You can now create Font resources in your project. Then you can directly use them in the controls properties, making it easier to use your own fonts in your projects.

COLOR RESOURCES

You can also create Color resources in your project. These colors will then be available in the Color Picker for easy access. Then if you change the resource color it will automatically take effect in all associated controls.

RAW RESOURCES

If you also have other types of files that you want to use as a Resource in your project, you can now add them as a Raw Resource. Use the Resource() function to access it from anywhere in your App.

MIS COMMUNICATOR

REVISED UI

Beside security updates made to MIS Communicator, UI is now cleaner and improved.

The Log window can now be maximized to make it easier to analyze.

Log messages have been improved with execution time for SQL statements to allow you to make a better analyzes of where your App is taking longer when accessing online databases.

PROJECT BACKUPS

NEW BACKUP SYSTEM

A new backup system have been added to Kalipso:

- **Automatic Backups**
  Automatic Backups are now saved into a folder named “Automatic Backups”. These new backups are made using a local GIT repository taking full advantage of storage space optimizations.
  The automatic backup now contains a full backup of your project state, that includes all resources, styles and Files To Send Folder.

- **User Backups**
  User Backups are now saved into a folder “User Backups” folder, and in this case the ZIP format is used, allowing you to easily access its contents.

ACTIONS

NEW ACTIONS

Other new actions that have been added to Kalipso:

- **Vibrate**
  A new Vibrate() action has been added so you can have yet another way of providing feedback to the user
  Returns a multi-language text from a linked project.

- **Get File Information**
  With the new GetFileInformation() action you can get File Size, Creation and Modification times.

- **Share File**
  Use the ShareFile() action to share your files with other Apps on the device.

- **Set Trace State**
  The new SetTraceState() action allows you to control the Simulator Trace Window state to make it easier to debug just the code you are working on.

- **Wait For Threads**
  Are you using threads in your projects and a hard time handling thread termination before closing your forms, now you can just call WaitForThreads() before closing your form to ensure you don’t leave any pending code executing in your forms when you close them.

- **Check Internet**
  If you need to know if your App has Internet access, you can now call CheckInternet().
  This new action will also let you know if your current internet connection is metered, so you can avoid making large data downloads if your user is going to pay for traffic.

- **Wake Lock**
  Use the WakeLock() action to keep your device awake while you are finishing some important process for the user.

- **Invoke Form ActionSet**
  Execute Local ActionSets on other forms that you have open, so to avoid duplicating your code.

FUNCTIONS

NEW FUNCTIONS

New functions have been added to Kalipso:

- **PMLText**
  Returns a multi-language text from a linked project.

- **PVAR**
  Returns a Global Variable from a linked project.

- **Resource**
  Returns project Resources for dynamic use.

- **LanguageKalipsoToISO**
  Converts a Kalipso Language code to ISO Language Code.

- **LanguageISOToKalipso**
  Converts an ISO Language code to Kalipso Language Code.
  Useful to use with the result of GetLocaleInformation() to know what Kalipso Language to apply with SetLanguage()

OTHERS

SOME OTHER IMPROVEMENTS

- **Colors in Hexadecimal**
  When specifying colors you had to specify RGB in decimal format. Now you can also use hexadecimal by prefixing with **#.**

- **SetValue for linked projects variables**
  SetValue() Action has been extended to allow you to set the value from a Global Variable in a linked project.

- **Additional Language information**
  GetLocaleInformation() action has been created to allow you to get information from the device settings related to the user language**.**

- **Custom URI schemes**
  Your App can be associated with an URI scheme so it is started when that scheme is used in the OS.
  For example, a link with “myApp://…” can now start your App when the user taps that link**.**

- **Debug Linked Project Variables**
  The Simulator Variables Window now has access to the global variables from linked projects.

- **Linked Projects Device Size**
  Now when you link to another project the Device defined on the linked project can have a different screen size, and Kalipso will make the necessary adjustments automatically.

- **Pick Multiple Files**
  The file picker called with SelectFile() action can now be used to pick multiple files.

- **Rename Tables and Fields**
  Ever had a typo on a table or column name, or simply decided to change it after using it in your project? Now you can rename the table or column and

Kalipso will updated the associated actions and controls to the new names. (Does not include SQLAdvanced)

- **Easier File Download with HTTPRequest**
  A new option is now available in HTTPRequest() action to allow you to save the response directly to a file.

- **Synchronize**
  New options are available when sending data to the server with the Synchronize() action. You can now define the order and apply a filter on the data to be sent to the server.

- **Improvements to KClient test mode**
  Have you been testing a lot of projects with KClient and need to delete some old projects? Now you can just Tap&Hold the project in KClient and delete it.

- **Customize Android Manifest**
  You can now add additional information to Android Manifest File if you need to make further configurations on Android.

- **Android dynamic Form Resize**
  Now, on Android forms are automatically resized even after they are open. You can now use advanced Android features like Side By Side with your Kalipso Apps.

- **Configure content of zero valued cells**
  If you have Table Controls with zeros that you just want to make empty or show other text, you can now do it in the column properties.

- **More Copy Paste**
  You can now use COPY/PASTE for your tables, database and communication profiles.

- **No Barcode Errors on Simulator**
  You can now configure your project not to generate errors on the Simulator when executing Barcode actions. Simulator does not have Barcode so it will normally generate errors, making it harder to handle debugging projects that use Barcode actions. This new option solves this problem.

CONTENTS

ENVIRONMENT 1
STYLE 2
FORMS 3
CONTROLS 3
SECURITY 5
NOTIFICATIONS 6
NFC 6
IMAGE PROCESSING 6
CORTEX SCAN 7
AUDIO RECORD 7
INTERNET OF THINGS 7
BLUETOOTH LOW ENERGY AND BEACONS 7
IPV6 8
PRINT PDF 8
VOICE OFFLINE 8
GPS 8
ANDROID EXTERNAL APKS 8
SERVICES 9
RESOURCES 9
MIS COMMUNICATOR 9
PROJECT BACKUPS 10
ACTIONS 10
FUNCTIONS 11
OTHERS 11

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