K-Console: User Guide

K-MATIC 10/19/2015

K-Mobile User Manual



Contents

Home Tab	1
The Home Tab	1
Form Designer Tab	2
The Form Designer Tab	2
Creating a new form	3
Form Attributes	4
Advanced Form functions	6
Special commands in the list view	
Creating "Inspections" relationships with Assets	7
Silent Sync Tab	8
The Silent Sync tab	8
Retrieving Data via USB Cable	g
Retrieving Data via the Cloud	11
Sending Data	12
Auto-syncing of data to the Database	14
Review Tab	15
The Review Tab	15
Using the Map Screen	15
Overlay Manager	
Reviewing Data from Mobile devices	17
Viewing Attribute Data	
Query on Jobs	18
Importing Data	19
Quick Grid View	20
Quick Map Print	21
Assigning Data to Devices	22
Exporting Data	23
Advanced Export Setup	24
Word Export	24
CSV Template	24
Settings Tab	25
The Settings Tab	25
General Settings	25
Additional Add-ons	26
Server Mode Settings	26
Users Settings	27
Assignment Options	27

Exchange Settings	28
Importing CSV settings	28
General Export Settings	28
Auto Convert Inbox	28
Photo Export settings	28
Cloud Proxy Connection Settings (If required)	29
CSV Export Settings	29
Word DOCX Export	29
AutoDesk export options	
Enterprise Management	26
External Data Source Management	Error! Bookmark not defined.
External 'Import Query' Management	Error! Bookmark not defined.
Automated Export Query	Error! Bookmark not defined.
Auto Assignment Query	Error! Bookmark not defined.
GPS Settings	31
ESRI export options	31
GPS Management	31
Troubleshooting	32
Troubleshooting	Error! Bookmark not defined

Home Tab

The Home Tab

This is the opening screen when the software first loads. By default it will show summaray graphs of all the data collected to date. The Home Tab is for information purposes only.

Demo Company Desktop Console





There are four options to view:-

Location Displays the latest reported location of each Patroller . This view uses the message tracking system that is built into K-Mobile, it is not quite a live position rather the last reported position,

which is reported on an interval determined in the mobile software

Activity Displays the Live data capture progress for the last two days. Data is 'Live' in that it is

reported before it has been synced. The display broken down by user and displayed on a

graphical speedometer

Assets Displays the DeviceID, Current User Name, and Last Connection Time, for each device in the

fleet. It also reports what version of the mobile software is installed on each device, so is

useful for managing larger rollouts

Totals Displays bar chart totals of ALL the data that has been synced back to the office, broken down

by feature type and patroller

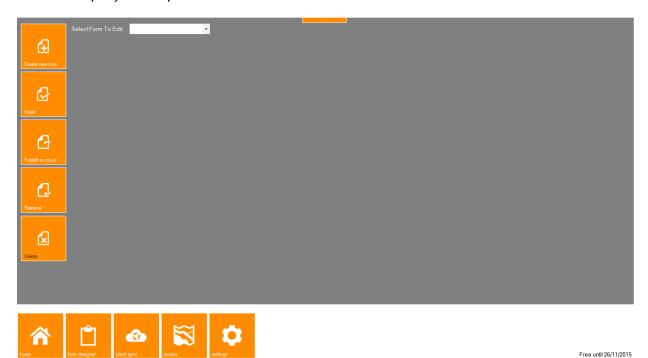
Form Designer Tab

The Form Designer Tab

The Form Designer is used by the System Administrator to setup the forms that are to be used on the mobile devices, This includes setting up Fields / List options / Validity checks and visual display properties of each feature type

Demo Company Desktop Console





Pick from previously created forms or example forms from the dropdown list.

There are five button options: -

Create new form Opens the create new form dialogue

Finish Closes the new form editor dialogue

Publish to cloud Sends the data to the cloud.

Note: This must be done even if not using the cloud server as it will update the Audit file

needed by K-Mobile when syncing forms

Retrieve Retrieves all the forms that are stored on the cloud.

Note: be aware that this will overwrites any forms stored locally if named the same. i.e. if a form is updated but Retrieve is selected instead of Publish to cloud it will retrieve the

older version and overwrite the updates.

Delete This deletes the Form. It will offer the option to remove the Form from the cloud as well

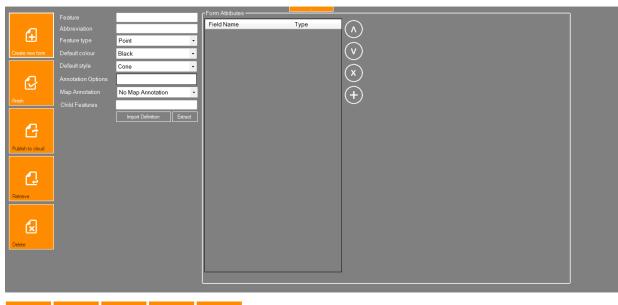
as locally. Note: A "Publish to cloud" will be needed to complete the action.

Creating a new form

Press Create new Form in the top left hand corner of the Form Designer screen.

Demo Company Desktop Console







Free until 26/11/2015

On the left hand side of the dialogue, fill in the: -

•	Feature name	The name of the feature, very important as often used as part of the
		export process for file type such as SHPs and MID/MIFs.
•	Abbreviation	What is listed in the Data view in K-Mobile.
•	Feature Type	
	o Point	Single position, either GPS or Pen created.
	o Linear	Multiple positions either GPS or Pen created and joined together.
	Area	Multiple positions, joins last to first to create closed polygon. GPS or Pen
		created.
	None	Feature with no position properties.

	o Area	created.
	o None	Feature with no position properties.
•	Default Colour	Pick the colour of the area/line style/symbol.
•	Default Style	Pick the area/line/symbol style displayed of the feature.
•	Annotation Options	Display up to three fields on the K-Mobile data view screen.
•	Map Annotation	Display on the Map Screen in K-Mobile up to the first three fields.
•	Child Features	Relates one form to another form. Please see Advanced section.
•	Import Definition	Import field definitions from SHP, CSV, MID/MIF, ATPs, JFL and Trimble data dictionary files.
•	Extract	Extracts the fields from the JFL file loaded on the Review Screen, can be used as a shortcut for extracting the fields names of a form, from any supported data format

Form Attributes

Once named, fields can then be added to the feature. These fields can be: -

Text Any character can be added to this field

Numeric Number only
 Date/Time Date/Time
 List Selection list

Photo Image option loaded, camera can be activated from here

Sketch Bitmap sketch can be drawn

Demo Company Desktop Console















Free until 26/11/2015

Mandatory option

Field must be completed before the form can be saved.

Read Only

Information is displayed only and **CAN NOT** be altered by the user in the field. An ideal use of this is when existing data is sent out. For example a species of tree cannot change therefore the field should be set to read only.

Default

The field is completed automatically by K-Mobile depending on the selection made.

• Date and Time stamp in the date field;

Date Collected
 Time Collected
 Date/Time Collected
 Date/Time Collected
 A combination of date and time

Date/Time Updated A combination of date and time of the last time the feature has

been edited

Time Updated
 Date Updated
 The time the feature was last edited
 The date the feature was last edited

Numeric

Length
 Length of the Line or Area feature

Area of the Line or Area feature in metres squared

E Easting value (for display purposes, Eastings are automatically stored)
 N Northing value (for display purposes, Northing are automatically stored)

Laser Height Laser Width
 CALC Simple calculations can be computed in the field
 ACC Accuracy at time of recording (GNSS only)
 Number of Satellites locked at time of recording

HDOP value at time of recording

Repeat last Repeats the last value entered until it is changed. A txt file is created and this

is called up until it is changed.

Text

User
 Username in the settings file will be entered

A combination of accuracy, Satellites and HDOP. Manual recording will state

PEN

Advanced Form functions

Special commands in the list view

There are two extra commands on the list view which allow more flexibility:-

• <Other> Allows free text entry. This might be used on lists where the most obvious

answers are listed but an extra ability to add the unexpected.

• <Add Other> Similar to <Other> but it adds it to the list. Lists are updated when a form is

updated.

Nested features

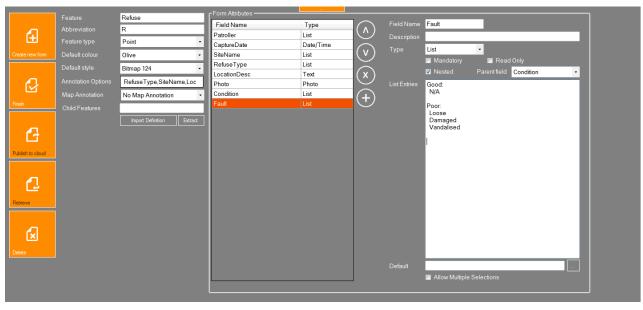
If you have a list field before this feature, a list based on that field's answers can be created. Pick the desired field in the Parent field and it should populate the field with the list options for that field.

Create the answers to each option in the parent field.

Please see example below.

Demo Company Desktop Console













Free until 26/11/2015

Note: If you only have one option that will automatically be selected by the software. In the example above the Good selection in the Condition field can only have N/A as the answer.

Creating "Inspections" relationships with Assets

In K-Console there is an option to connect forms together. The use of these linked forms can improve data capture and data storage. When stored in a database they will be connected by a one-to-many relationship. This can also be called a Parent and Child relationship.

For example an asset may have certain attributes which cannot be changed.

i.e. A wooden bench which was installed in 1985.

This asset can have attributes which can change from year to year and therefore multiple records about the asset can be recorded and stored. The **AssetID** can be stored in Inspection and therefore the one-to-many relationship is maintained.

When creating the Inspection form in the Form Designer, use the *Child Features Field* when creating the Asset form. From the example above the Bench form would have a Child Features Field stating Inspection. This means when the Bench form is completed in K-Mobile the user is asked whether to add an Inspection.

Worked Example:

- Create a Bench form with fields for Installed Date / Bench Style etc these do not change from year to year.
- Set then Child feature of the Bench form, to BenchInspection
- Create a BenchInspection Form with a BenchID field (which has its default set to Bench.TXT)
- Add some other Inspection fields such as InspectionDate and Condition

Transfer forms to a device, Then whenever a Bench feature is added or edited the Patroller is gives the option to 'Add a BenchInspection'. If the Patroller selects to add an inspection, the BenchID field of the inspection form, will be pre-populated with the UniqueID of the Bench.

Page |7

Silent Sync Tab

The Silent Sync tab

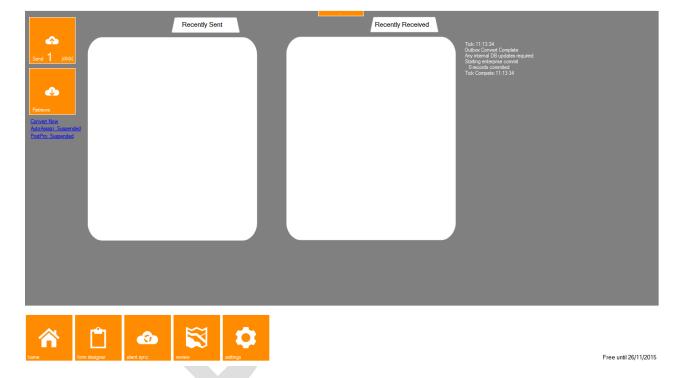
K-Console is setup to retrieve information from the Windows Mobile Device with K-Mobile installed. Once the JFL are sent or retrieved they will appear on the relevant panel. There is a ticker in the top right of the screen which is constantly updating with what the programme is currently undertaking.

There are two options to send or retrieve. Please use the method that the K-Mobile is setup to receive:

- Via Cable
- Via Cloud

Demo Company Desktop Console





Retrieving Data via USB Cable

To use the cable transfer, please make sure Windows Mobile Device Centre is installed. Once the Mobile is connected via USB cable, please make sure that the unit is fully connected.

Every time a new Windows Mobile device is connected it will need to install the drivers each time. For this to happen it is easier if it connected to the internet as Windows Drivers will often have to check online for updates.

This is an example is a Trimble Juno 3 Series connected via Windows Mobile Device Centre. Observe the Connected tick in the bottom left of the screen in the image below.



The data will have been prepared on the K-Mobile device. If it hasn't already been pressed, use the "Sync" button on the K-Mobile Home screen.

It should state "Copied to Outbox" on the device.

Once the device is connected press the Retrieve button on the Silent Sync Tab. If the defaults are still set then it should ask whether you want to retrieve from connected device.





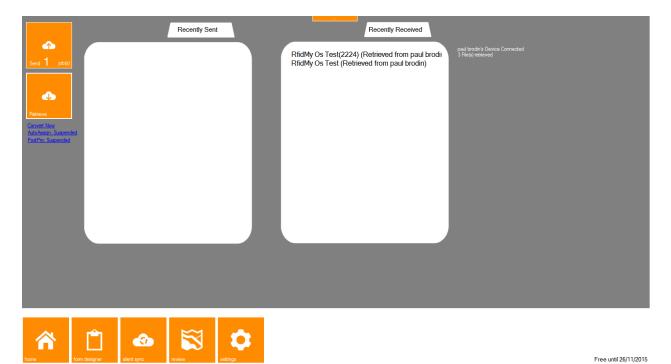
Note: That it will check the Forms on the device and update the forms where necessary in the background. That check can be seen on the right hand side of the screen.

In the Recently Received column below the name of the Job appears with the name of the User next to it in brackets.

Demo Company Desktop Console







To view this data please use the Review screen (page 21)

Retrieving Data via the Cloud

To use the cloud to transfer data an internet connection must be present. It will connect to the cloud and do a check to see if anything is there to download.

Demo Company Desktop Console



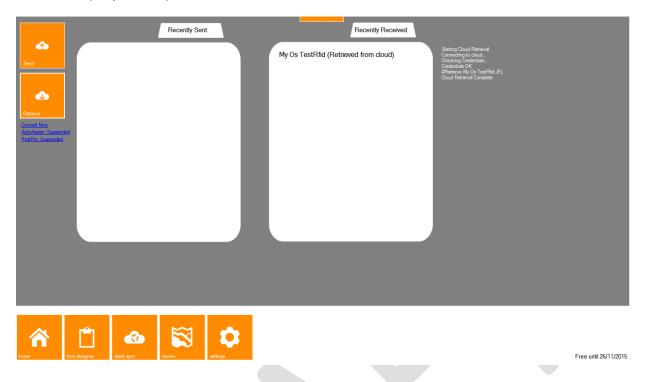


Downloaded data will be displayed via the method used, "cloud", and also by what the user called the file on the device.

First the data will appear on the ticker on the right hand side of the screen, then once the Job name has been synced to the database, it will appear on the Recently Received panel.

Page |11





To view this data please use the Review screen (page 21)

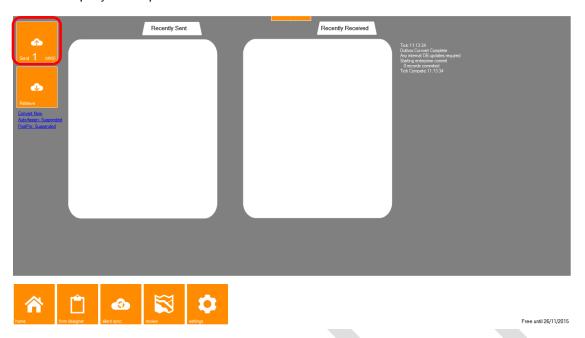
Sending Data

To send data out to a User please use the Assign button on the Review Screen.

Once this step has taken place there should be a number on the **Send** button in relation to the number of jobs waiting to be sent.

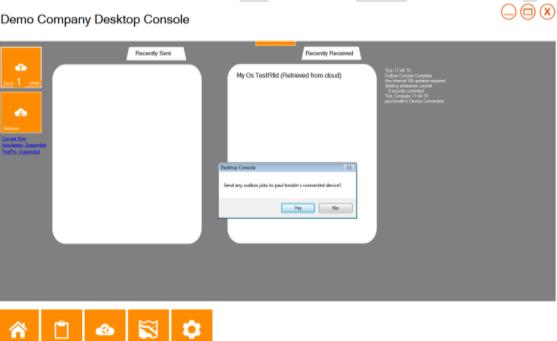
In the example below it is one. *Support Tip: Double click on the text to update the database to see if there is a job waiting*





It will first see if there is a unit connected and ask whether you wish to send it to that device.

Demo Company Desktop Console



Second option is to send to the cloud for Wireless download.

Free until 26/11/2015





Auto-syncing of data to the Database

If an external data source has been created, once the data has been downloaded on the next cycle it will commit the data to the database.

To stop the programme freezing there are limits to how much can be committed at one time, so if it doesn't appear to commit all the records the first time, the next cycle will commit the data. To change the cycle times please use the Settings page.

Support Tip: To run the next cycle; double click on the text in the top right hand corner.

For more information on setting up database synchronisation please see the Appendix 2 - External Data Source Appendix

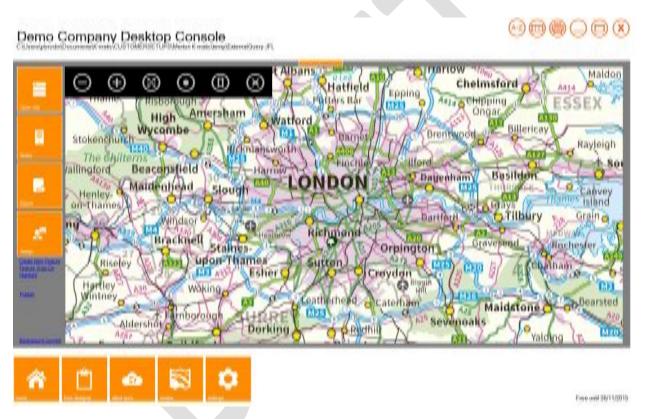
Review Tab

The Review Tab

This screen is used for many functions. Opening, Importing, Querying, Exporting, Assigning and Background Map conversion all happen here.

Using the Map Screen

There is a scale indicator in the top left of the screen. Just like in the K-Mobile software there are hidden controls when it is clicked.



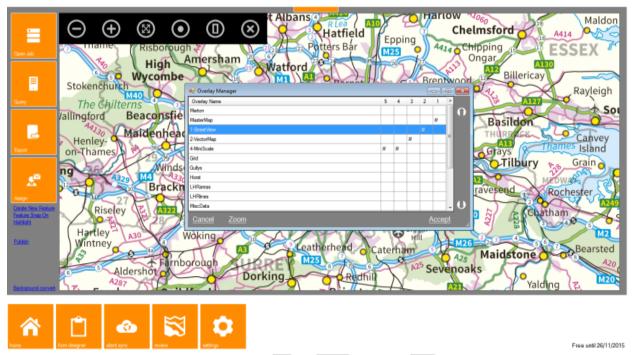
In order from left to right:

- Zoom Out
- Zoom In
- Zoom Extents
- Centre on Map on Location
- Overlay Manager
- Closes Toolbar

Overlay Manager







Loads the folders set in the Mapping folder in the Settings section. (Page 36)

Layers can be displayed by the screens zoom level. They are displayed in a hierarchical way with the top of the Overlay Manager being the highest layer.

Reviewing Data from Mobile devices

Use the Open Job dialogue to open data received from devices.

There are six viewing options

- Recently Received Jobs
- All Received Jobs
- Finished Jobs
- All Exported Jobs
- Non Exported Jobs
- All Jobs

Note: If you have just received data there might be a short delay before that file appears in the list, please be patient and wait for the database list to be updated.

* Support Tip: If you cannot see any data please check that the K-DB database can be accessed as all Jobs are listed there.*

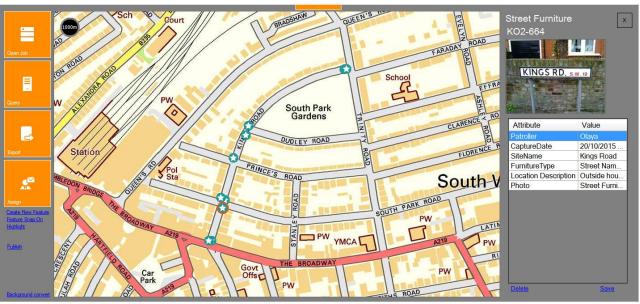
Viewing Attribute Data

Once data has been loaded within K-Console, it should zoom into view. If background map data has been setup via the Overlay Manager it should appear in the background.

Attributes can be viewed by selecting the point icon or starting point of line or area feature. The attributes will appear on the right hand side of the screen.

Demo Company Desktop Console C\Users\pbrodin\Documents\K-matic\CUSTOMERSETUPS\Merton K-matic\temp\ExternalQuery.JF















Free until 26/11/2015

Query on Jobs

There is an ability to select individual features, recorded across multiple jobs. A timeframe can also be easily selected. None of this requires any extra database setup as it is querying the data in the K-DB database.

Worked example:

The feature type selected is Room Works

The date range is 12th to 15th October.







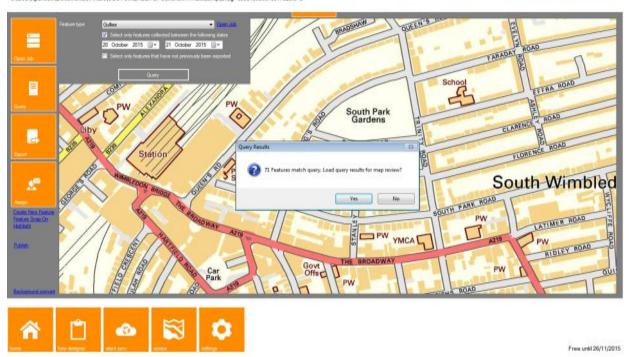


Free until 26/11/2015

When the query is run, it returns the number of results and asks whether to load them. By clicking Yes the data will appear in the Map view.

Demo Company Desktop Console CVJsarslobrodin/DocumentsIK-matic/CUSTOMERSETUPSVMenton K-matic/temp/Draa^635815686075047528.JFI





Importing Data

Data can be imported by dragging and dropping a data file onto the Review data screen. If the file format is recognised the data will be imported automatically.

Data formats that are automatically recognised are:-

- SHP
- JFL
- MID/MIF
- CSV

The data should be loaded onto the screen and displayed.

Quick Grid View

In the top right hand corner of the screen there is a grid icon. If you click on this then you can bring up a grid view of the data on the map screen. This is very useful as you can easily check the data has imported as expected. It also gives the opportunity for any data without a location to be displayed.



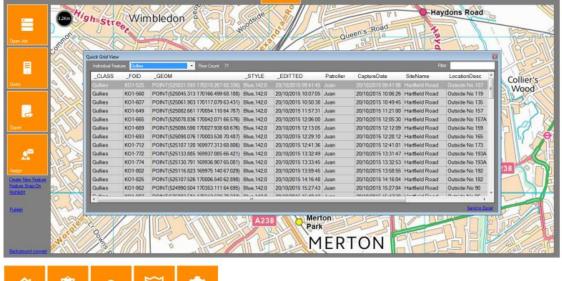




- The Individual Feature dropdown list allows the selection of different features.
- · Row Count is a simple count of the features loaded.
- Filter by Attribute
- Send to Excel This creates a CSV output which will open in the default spreadsheet programme







Free until 26/11/2015

Quick Map Print

In the top right hand corner of the screen there is a Print Icon.

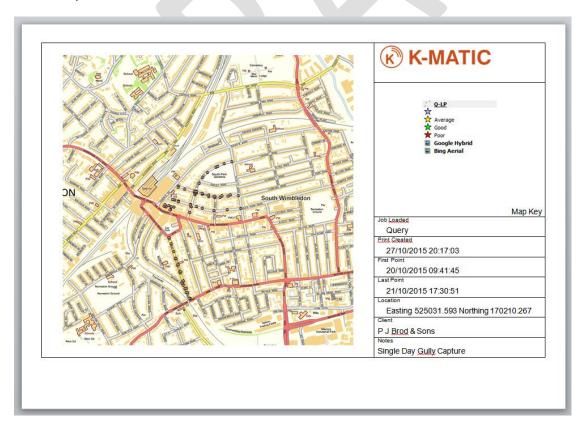






This is linked to a simple Word Document output. It will display a map and a set of basic attributes.

See Example below



Assigning Data to Devices

To send specific data to a specific user then the Assign button on the Review screen is used.

This assumes that the User has been created. *Note: To create user please refer to User Management section in the Settings Tab.*

• Job name By Default this will be given as the same date as the computer it was created on.

• Description Description of the job will appear when the user opens the data in K-Mobile, so it

can contain a simple instruction to the end user.

Recipient User will the job be assigned too

Set As Route This is for a specific setup using an InspectionRoute field. Please contact Support

for full setup details.

Location Is there a specific location for the Job set

Specific Features Set a limit of which features can be sent to users

Include Features Four options No Features, All loaded, On-screen, Within Assignment Area

Demo Company Desktop Console Ctd Sersiphrodin/Documents/K-matic/CUSTOMFRSFTUPS/Medon K-matic/Templ/Query JFI







Free until 26/11/2015

To select recipients, click OK at the bottom of the Users list before Assign can be pressed.

Exporting Data

There are many ways to export data in K-Console. The simplest method is to set an Export Format that is available.

These can be selected from the "Save as type" dropdown once the Export button has been pressed.

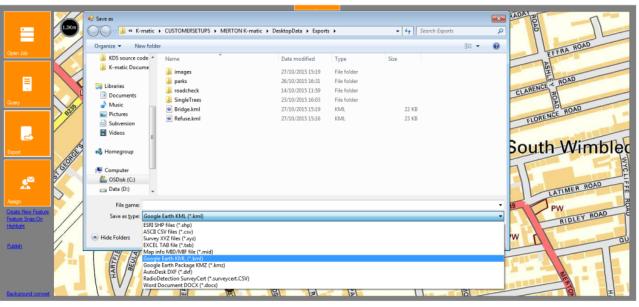
Currently they are:-

- SHP
- DXF
- KML (Please ensure 'Additional Co-ordinate System management' is installed)
- KMZ
- CSV
- TAB
- MID
- XYZ

Note: That there Word Documents.Docx also available but they will require extra set ups. Also database synchronisation is covered elsewhere on Page 43

Demo Company Desktop Console















Free until 26/11/2015

Advanced Export Setup

Some Export types need a few extra steps before they will work. A extra folder needs to be setup called Templates, in the Forms folder in the DesktopData folder.

Word Export

To produce a Word Document from K-Console a "Featurename.docx" needs to be created. This will be recalled by the software when the Word file type is selected.

In the Word document a field attribute can be recalled by using curly brackets.

Worked Example

Sample Number	{SampleNumber}	{Site Reference}					
Sample Description	{Sample Description}						
Sample Location {Sample Location}, {Chainage}							
Co-Ordinates	N(X) {X}	E(Y) {Y}	L(Z) {Height}				

An image can be displayed by using the command Image and fieldname.

{Image: Photo 1:8:}

Support Tip: - The number is the size of the image that will appear in the document. It is advised to test the size options before finalising the template.

CSV Template

A Templated CSV document can be created by placing a CSV in the Templates folder that matches the feature name. The first line of the document is the output fieldname and the second row is the feature name from K-Console.

Worked Example:

HUB ID	Route	GangName	WorkPoint	Туре	SurfaceType	Rings	Photo	Notes	East	North
HUB	Route	GangName	WorkPoint	Туре	SurfaceType	Rings	Photo	Notes	х	Υ

Settings Tab

The Settings Tab

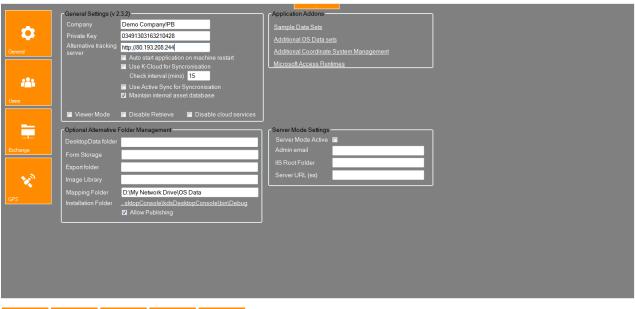
This section contains all of the setup information and settings for K-Console. It is broken down into four sections down the left hand side of the screen.

- General
- Users
- Exchange
- GPS

General Settings

Demo Company Desktop Console















Free until 26/11/2015

You should have been provided with a Company Name and Private Key. This must be entered as given as it is linked to the account in the cloud, where the data is stored during transfer.

Please be aware that the data is only stored in the cloud temporarily, while it is taken from the device and confirmed that it has been downloaded to the K-Console correctly. We **DO NOT** keep a copy of any of your data.

If you have not received your Company Name or Private Key please email support@korecgroup.com

Alternatively you can use Demo Company as the Company Name and 0000 as the private key.

Note: If you use this Demo Company name please be aware the data will be available to everyone so this is not a secure option. As the name suggests this is recommended for demo/ testing only.

The options are:-

Auto start application on machine restart When Windows starts, so will K-Console

Use K-Cloud for Synchronisation
 Send data to the cloud (internet connect required)

Check interval (mins)
 How often to check for new data

Use Active Sync for Synchronisation Use the USB cable connection to send data

Maintain internal asset database
 Maintains an internal record of everthing. (Recommended)

Viewer Mode
 Only viewing of data can happen no send/retrieve

Disable Retrieve
 Disables the Retrieve via Cable option
 Disable cloud services
 Disables the cloud send/retrieve option

Folder Options

By default the data will be stored in the K-Matic folder in the My Documents. For a full explanation of the different folders please refer to *Chapter One – Installation and Setup*.

If any of the data is stored in an alternative location such as a shared drive then this is where it needs to be entered for the software to be able to locate it.

It can be typed in as a mapped drive letter i.e. F:\ or as a sever location \\LIV-FS\K-Matic

The installation folder is a link to where the exe is stored.

By default the install location is in App Data\Local\Apps within the My Documents area of the User.

Additional Add-ons

There are links to Sample datasets, additional background maps for UK and Ireland and Additional coordinate system management for exporting KML data. There is also a free download link for Microsoft Access Runtimes if Microsoft Access isn't installed.

Server Mode Settings

This section is for a specific setup using an IIS server, so that data can be pushed to a locally hosted website. If you are interested in this please contact your local salesman.

Enterprise Management

This is where the links to the databases are setup. There are four options:-

- External 'Data Source' Management
- External 'Import Query' Management
- Automated Export Query
- Auto Assignment Query

Please see Enterprise External Database Setup Appendix for details on configuring these options

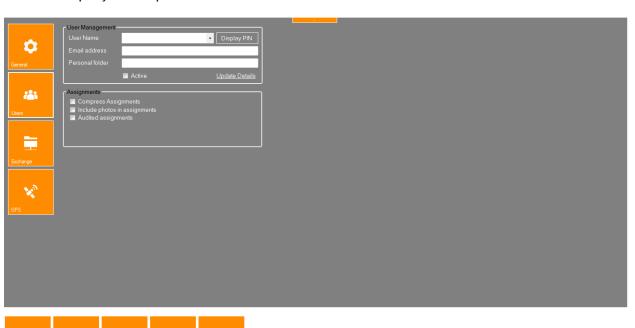
Users Settings

As many users as necessary with separate access PINs can be added. K-Mobile uses an algorithm to create a PIN code from the number and letters in the username and Company Name. Therefore if the user has forgotten their PIN it can always be retrieved from the K-Console. The user **cannot** change PIN codes.

Type in the User Name then press Display PIN. Make a note of this for users of K-Mobile

To save this user to the list press the **Update Details** link.

Demo Company Desktop Console



Select the **Active** tick box to make this user the one who will receive the next data you send out to the cloud or Active Sync

It is possible to create separate areas for each user using the Personal Folder section. Email addresses can also be added.

Assignment Options

For complex assignments with large number of features then compression is available to reduce the download time in the field.

By default, no images are sent out to reduce the size of the packages sent.

 \square

Free until 26/11/2015

Exchange Settings

Importing CSV settings

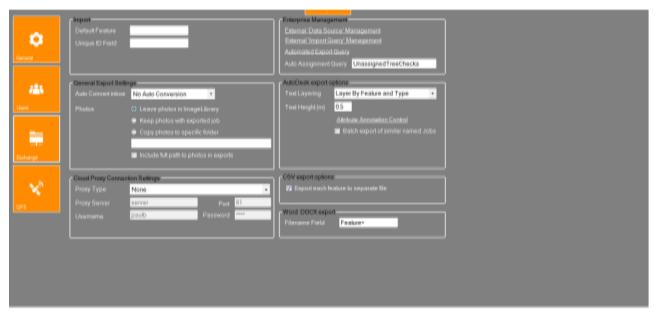
If the import is always going to be the same feature, i.e. Gully, then you will force the program to only create Gully features when importing any CSV data file.

When importing data from a CSV file into K-Console, the file might have headings for each individual field. In K-Console there must be a unique identifier for each point

For example:- PointNumber or uKey

Demo Company Desktop Console















Free until 26/11/2015

General Export Settings

Auto Convert Inbox

A general setting can be put in place which will look for any new data that has been downloaded and automatically export the data to the Export folder without any buttons being pressed.

Options are: - CSV, TAB, MID/MIF, SHP or No Auto Conversion

Photo Export settings

These are the options as to where the photos will be stored once they are downloaded, and also when the export takes place. Only one option can be selected.

- In the K-matic folder there is an ImageLibary folder, photos are stored here by default.
- Once exported, photos are moved to export folder
- Once exported, photos are moved to a set folder that isn't the export folder.
- The field which stores the photo name can also include the full path. Please note that this will only be location at the time of export. It will **NOT** automatically update if the photos are moved afterwards.

Cloud Proxy Connection Settings (If required)

Some large IT networks are run through Proxy servers; K-Console can handle this. Enter the settings required for the proxy server. An IT department should be able to provide you with all the necessary details if this step is required.

CSV Export Settings

By default a CSV export will be combined into one file. To separate the export into CSV by feature type please tick this box.

Word DOCX Export

By default the Word Document will be named after the feature ID, i.e. Demo-123, however if there is a fieldname which makes more sense this can be entered here.



AutoDesk export options

The method of Text layering can be chosen from three different options.

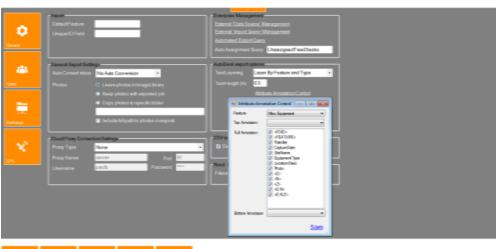
- Layer By Feature.
- Simple Layer By Annotation Type.
- Layer by Feature and Type.

For exporting to DXF, a set height in metres can be set for the text.

Attribute Annotation Control allows you to specify how each feature is exported to DXF.

Demo Company Desktop Console







Feerund 25/11/2015

This example shows the Misc Equipment feature type and what is going to be exported to DXF.

Page |30

GPS Settings

Demo Company Desktop Console





ESRI export options

A SHP file will need a PRJ file to be assigned to it for it to be located when it is imported into a GIS such as ESRI ArcGIS or QGIS. For ease of use it can be assigned here or in the GIS software on import.

GPS Management

If the KML format is selected for export then Pathfinder Tools will need to be installed. This will **NOT** be installed by default.

If this is not installed then it will create data that is at 0,0.

Please use the Additional Co-ordinate System Management to install.

Troubleshooting

Not syncing data from the cloud

Please check the Company Name and Pin Code is the same as provided by Korec. Try sending to the cloud if the retrieve option fails.

Error message OLE12 database error

This message may appear if Microsoft Access is not installed. K-Console needs the drivers to be able to write to the internal database which keeps track of everything that happens within K-Console. The link below is the Distributable driver for Access. This is also available via the link on the settings screen, Microsoft Access Runtimes.

http://www.microsoft.com/en-gb/download/details.aspx?id=10910

In the settings screen, **Internal Database not available** may appear if K-Console doesn't detect the correct drivers.

If you encounter any errors not listed please contact support@korecgroup.com

Page |32