

Bluebird's **iBird**

Connecting South African
Doctors

By
Darryl Garth Vine
MBChB FRCSC

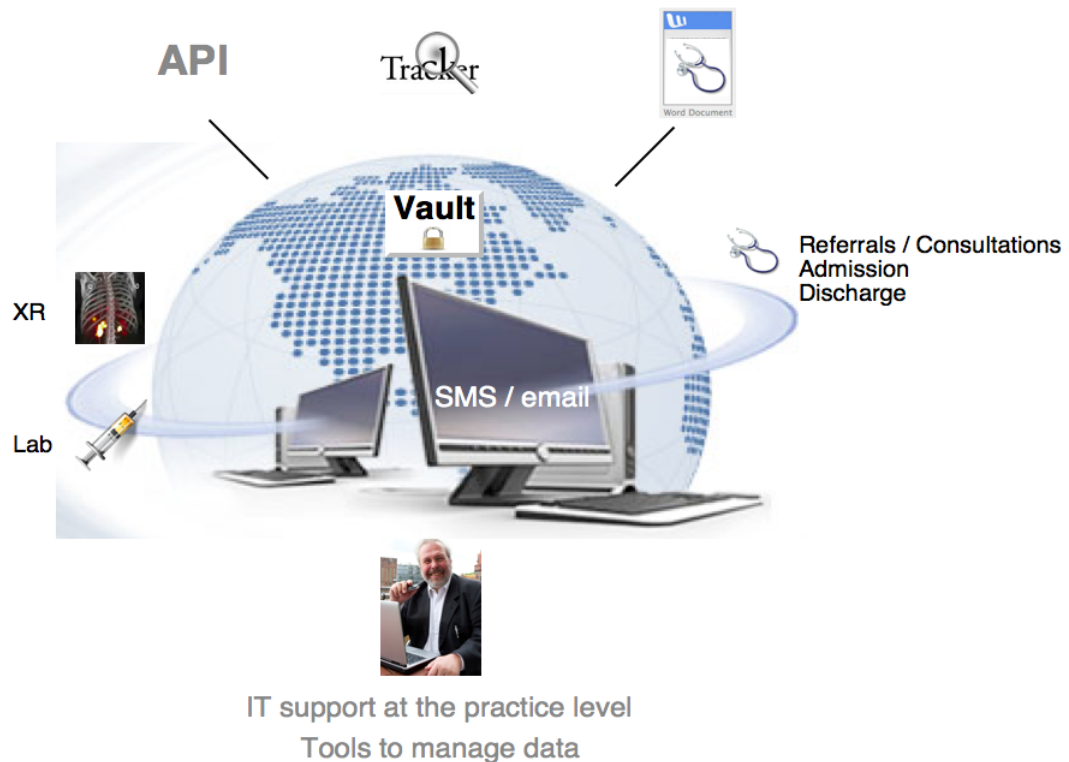


Contents

<u>Page 3</u>	<u>Introduction</u>
<u>Page 6</u>	<u>Installation</u>
<u>Page 9</u>	<u>Incoming</u>
<u>Page 16</u>	<u>Preferences</u>
<u>Page 20</u>	<u>Outgoing</u>
<u>Page 26</u>	<u>Word Processing</u>
<u>Page 28</u>	<u>Additional Files</u>
<u>Page 32</u>	<u>iPhone / iPod / iPad</u>
<u>Page 37</u>	<u>MS Word Plug-in</u>
<u>Page 47</u>	<u>Hospital</u>
<u>Page 52</u>	<u>Recap</u>



Introduction



The image above depicts the Bluebird Hub, a closed system that allows medical doctors in South Africa to communicate confidential patient information to other doctors *involved in the care of that patient*.

This manual describes iBird, one of the simple, yet sophisticated, tools we provide to receive and send confidential patient information via the Bluebird Hub and, to manage that data on the Doctor's PC, iPhone or iPad or the Hospital Ward.

There is also a chapter detailing Bluebird's Word Plug-In, a free add-on to Microsoft Word which allows practices that use Word, the ability to automatically move that document (securely via the Bluebird Hub) to any other doctor registered with the HPCSA and to notify that doctor that the consultative report is waiting.

iBird has been designed to be easy to use. No previous computer experience is assumed. This *ease of use* is supplemented by (optional) tool-tips (see below) as well as this manual. Tool tips are turned on by default (but may be turned off in Preferences) and come up when one “mouses over” objects on the screen.

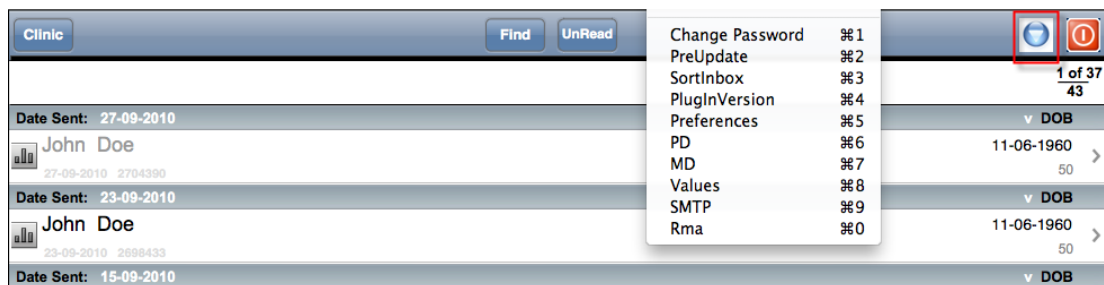
The screenshot shows the 'darrylv Preferences' dialog box with the 'General' tab selected. The dialog has a title bar with 'darrylv Preferences' and a 'Close' button. Below the title bar are four tabs: 'General', 'LetterHead', 'Language', and 'Monitor'. The 'General' tab contains various settings for the user 'darrylv'. Fields include 'UN' (darrylv), 'MDid' (0251208), 'Title' (Dr.), 'FirstName' (Darryl), 'LastName' (Vine), 'Specialty' (Obgyn), 'DefaultNote' (Consult), 'Zoom' (radio buttons for 100, 150, 200, and checkboxes for Yes/No), 'MaxID' (2829312), 'Language' (radio buttons for English and SL), 'OpenSend' (radio buttons for Yes/No), 'OpeningSort' (radio buttons for Yes/No), 'RoomsEmail' (darryl@bluebird.co.za), 'Dr Email' (obgyn@bluebird.co.za), 'Navigate' (radio buttons for Yes/No), 'SendT...' (radio buttons for Yes/No), 'EnableTimer' (radio buttons for Yes/No), 'Timer Interval' (600), 'Enable Clinic' (checkbox), 'URL' (intelms.com), 'ServerNo.' (Access (xserve.bluebird.co.za)), 'BUonExit' (radio buttons for Yes/No), 'DaysFind' (checkbox), 'Ask empty Folder' (radio buttons for Yes/No), 'ShowTooltips' (radio buttons for Yes/No), 'Debug Plug' (False), and 'SMTP enable' (Yes). A tooltip is visible over the 'Navigate' field, stating: 'Your personal email address Where we notify you if reports cannot be delivered'.

Initially, we expect that many doctors will only use iBird for receiving incoming reports (mainly lab results) and for this task iBird is very easy to use and this manual is probably superfluous, however, iBird offers a lot more to enhance your practice, and this manual offers a simple guide to these features.

The image below shows the **Inbox**, which is the page that opens when the iBird application icon (shown as the icon in the middle of the page footer below) is clicked.

At the top of an iBird page is a set of menus used mainly, for editing, but one menu, the *Script Menu* deserves special mention and is shown open in the white pull down box below. This is where one changes one's password, prepares iBird for updating, sorts the inbox (to group reports by date), checks the plug-in version (sometimes required by support) and opens additional files (Preferences, Patient Data, Medical Doctors, Values, SMTP and Medical Aids).

The Value file stores pop-up choices you define for your clinical notes (Discharge Summaries, Referral and Consultation notes), the SMTP file holds reports that are queued before sending to the Bluebird Hub.



iBird has been designed to run on Windows, Apple Mac, the iPhone and the iPad. It requires an Internet connection, preferably permanent, to retrieve data from the Bluebird Hub. When a permanent connection is available, polling the Hub occurs in the background and the user is informed when new reports have arrived.

Ideally one run's iBird on a PC and backs up daily to a mobile device (iPhone or iPad). This means that all your information (all lab reports, all referrals, consultations and discharge summaries) can be in your pocket and iBird is designed so that when running on the mobile device it can be updated with the Bluebird Hub (a little slower than a PC connected to an ADSL, but great when you are away from a PC).

Note: *For those that do not have one of these mobile devices, please back up your iBird as you would any other important data on your PC.*

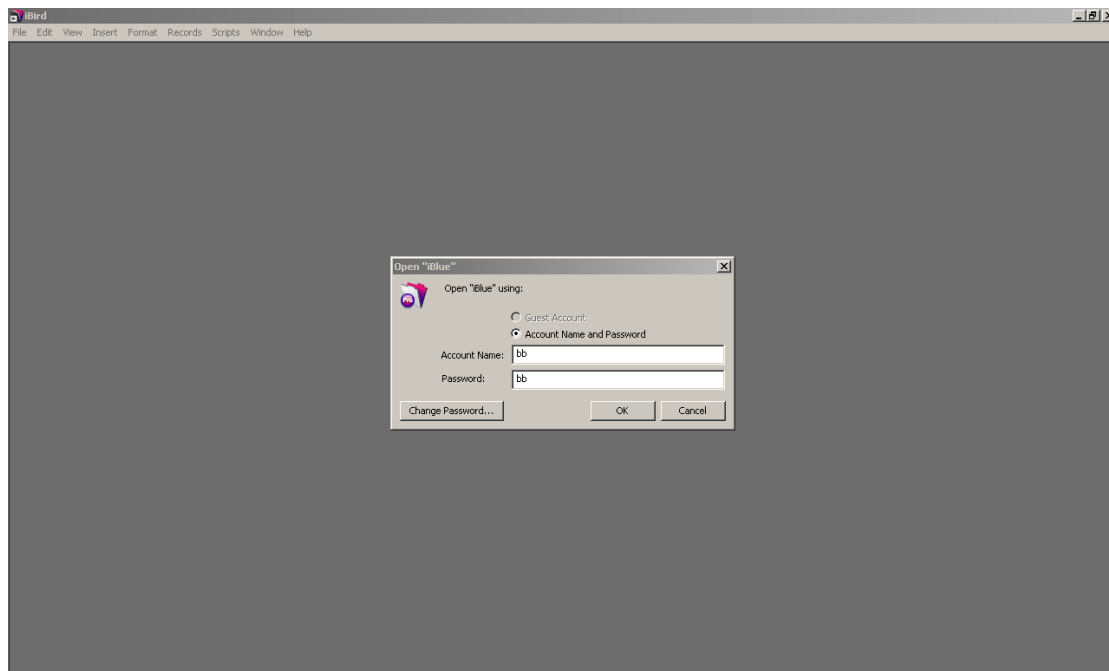
Installation

When the iBird application icon is clicked after a virginal installation, the image below is displayed.

- Enter **bb** as both Account Name and Password to start the activation process then click **OK**.

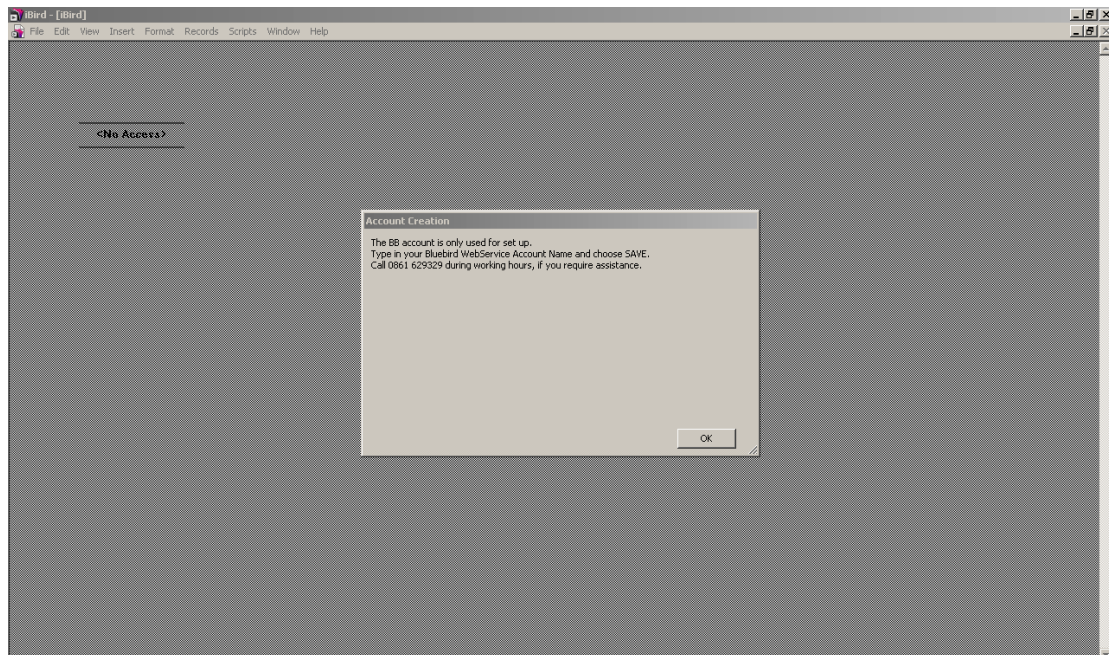
The activation process allows you to set up your software to send and receive confidential information via the Bluebird Hub.

Warning: Please **do not ever** click the “**Change Password**” button shown below, this button is reserved for Bluebird Staff to assist you. Changing you password in this manner will make it impossible to assist you. Please use the script menu (page 9) to change your password (We recommend you change your Bluebird WebService password regularly, and you will then need to change your iBird pw to your new WebService pw).

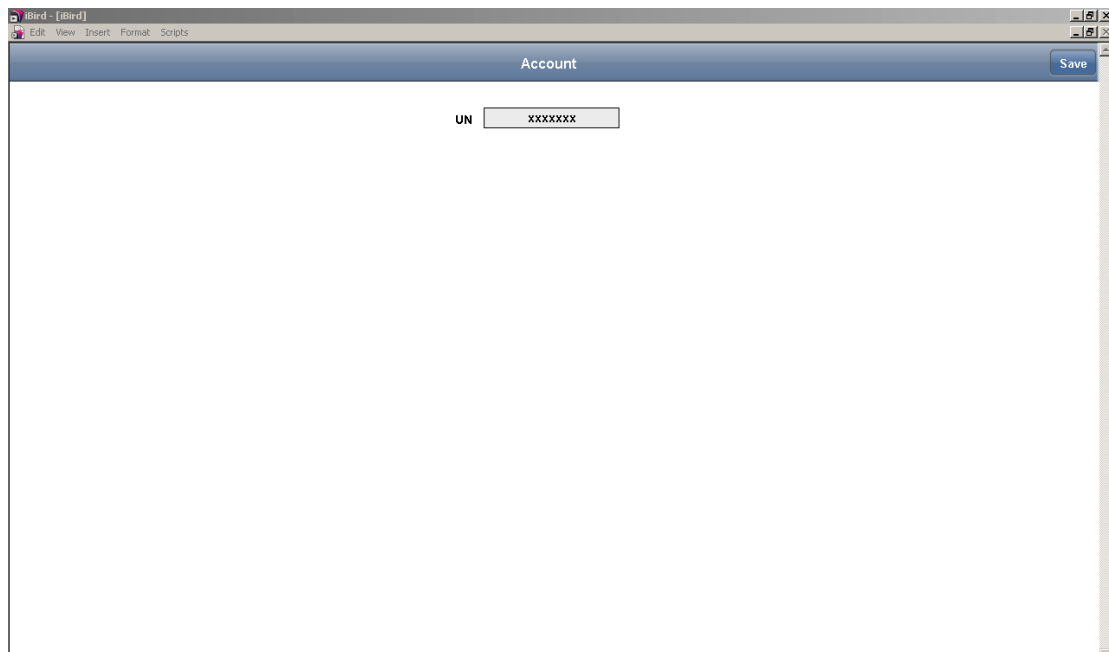


The instruction page below will then come up

- Click OK

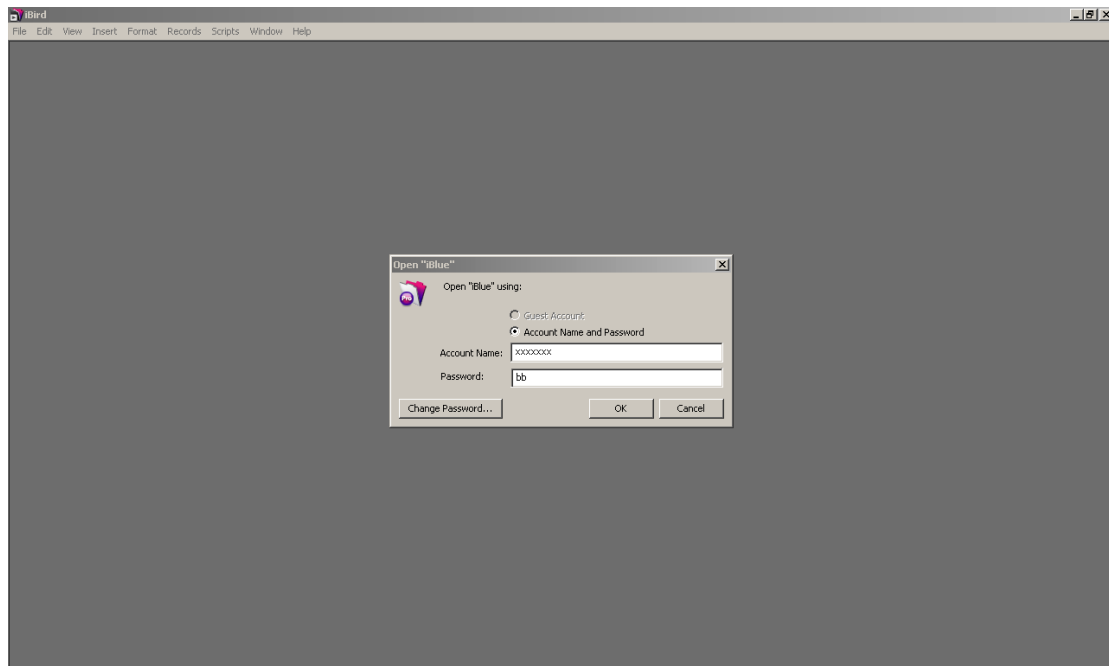


The page below will come up.

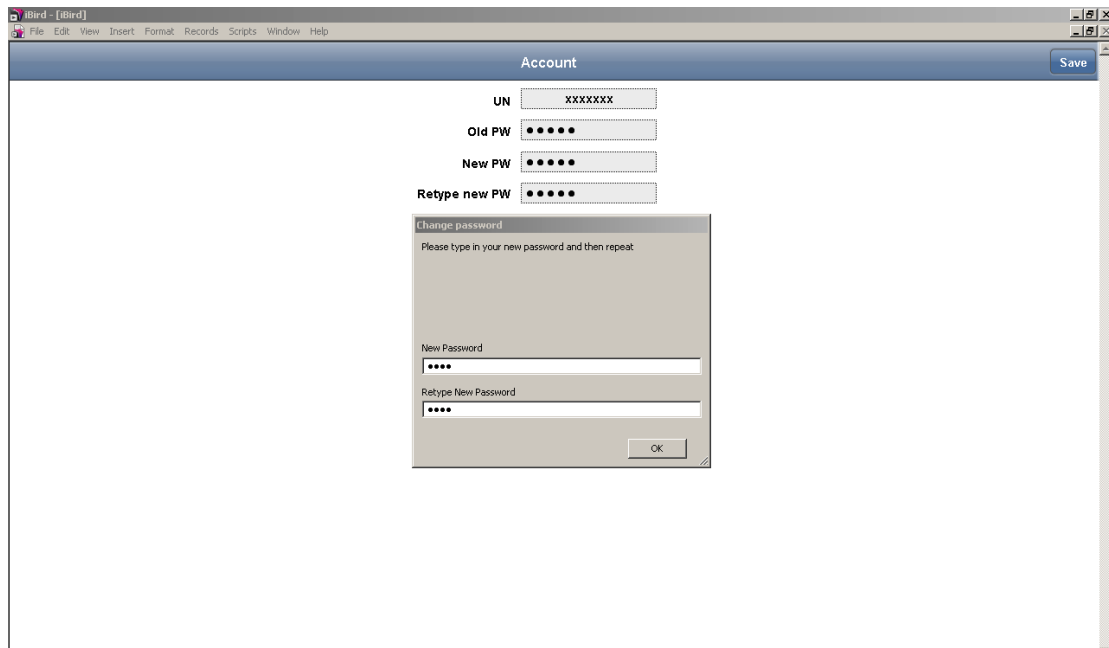


- Type in your Bluebird Web Service **User Name** into the box and click the blue **SAVE** button. iBird will close.

- Open iBird again using the application icon.
- Please use your Bluebird Web Service User Name as the Account Name and bb as the password (see below)



- You will be asked to change your password. Do this in the dialog box shown in the screen-shot below.



- After clicking OK, iBird will close. Activation is complete.
- Please re-open iBird with your new UN and PW. You will be taken to your Inbox (see next chapter).

Incoming

By default, iBird assumes you have a permanent link to the Internet and will poll for new reports in the background and alert you when reports arrive. If you do not have a constant Internet connection, please start by using the script menu (as shown in the pop up below) and changing that Preference (as described on page 16 of the Preferences chapter).

Doctors that only connect intermittently should use the Blue button on the top right hand side of the Inbox (highlighted in red in the image below) to connect to the Bluebird Hub. Sending reports (referral notes, consultations etc needs an internet connection established).

Date Sent:	Name	DOB
27-09-2010 2704390	John Doe	11-06-1960
23-09-2010 2698433	John Doe	11-06-1960
15-09-2010 2685359	John Doe	11-06-1960
15-09-2010 2685654	John Doe	11-06-1960
16-07-2010 2581735	John Doe	11-06-1960
16-07-2010 2582358	John Doe	11-06-1960
05-06-2010 2515594	John Doe	11-06-1960
05-06-2010 2515651	John Doe	11-06-1960
05-06-2010 2515654	John Doe	11-06-1960
04-06-2010 2514847	John Doe	11-06-1960
28-04-2010 2454755	John Doe	11-06-1960

This is the iBird opening screen or Inbox.

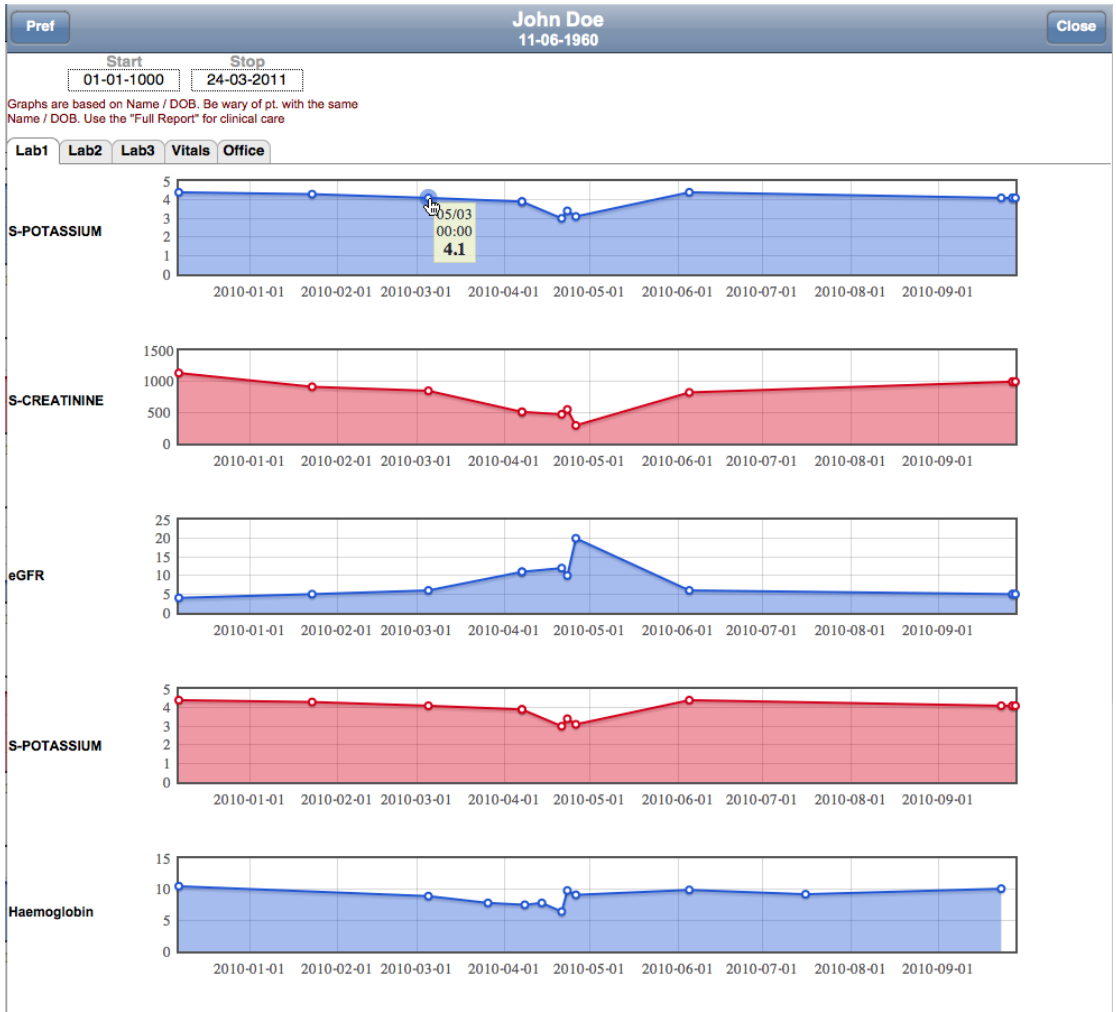
On opening, all incoming reports, not yet read, are listed.

On the left of each line you will see the gray graph icon.

Once you set up the test groups that you wish to monitor (see Preferences chapter page 19), clicking that graph icon will take you to the graphs as shown in the image on the next page.

Note: If you select the option to download reports in the background (recommended), you will see a pop up message telling you new reports have arrived. Click the Unread button (see above) to see the new reports.





Clicking any line on the Inbox will take you to a page allowing you to read the report. If that report is numeric (i.e. not text like histology, radiology, consultation...etc) the following image is displayed.

Prev	Full	Inbox	Find	Next >
Lancet 27-09-2010		John Doe 11-06-1960		1 of 37 43
Test	%	Result	Unit	
S-POTASSIUM		4.1	mmol/L	
S-UREA, serum Pre-dialysis		26.4	mmol/L	
Urea Reduction Ratio		0	%	
S-CREATININE		997	umol/L	
eGFR		5	mL/min	
S-PHOSPHATE inorganic		0.77	mmol/L	
S-ALBUMIN		40	g/L	

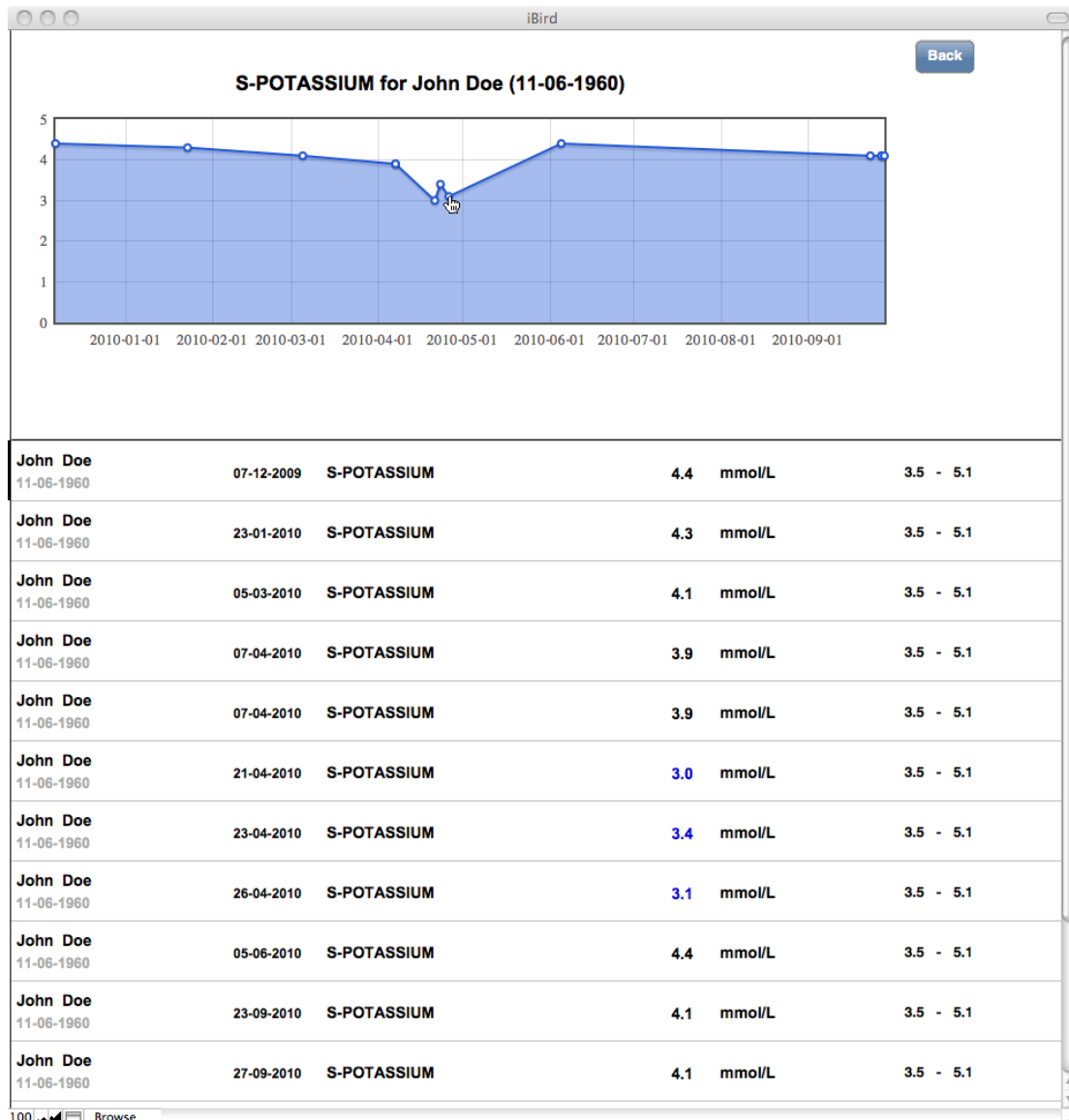
Use the [Prev](#) and [Next](#) buttons (at the top of the page) to move between reports.

In the image above, these buttons are highlighted in red.

Note that the [Prev](#) button is grayed out. This is because we are on the 1st record and there is no previous report.

You will note that results are colour-coded with red denoting a result above the normal range, and blue, one below normal.

In the image above, I have highlighted a test name in red. If one clicks a test name, one is taken to a cumulative table (and graph) showing that test (over time) for this patient. Please see the image on the next page.



Bluebird graphs are interactive (depicted by the hand on the graph above). Click on a graph and then hover over any of the points. A tool tip appears which gives information about that particular test.

Warning

If you use multiple labs, be aware that different labs might use *different normal ranges*. Clinical care should be based on the full report (use the **Full** button to access the report as it was sent by your lab)

Clicking the blue **Full** button (at the top of any Inbox page) allows you to access the report as your chosen lab, radiologist or specialist sent it. Besides being the medico-legal document on which clinical decisions should be made, this page also offers various tools (as described later). (Use the **Back** button, highlighted in red in the image, to return to the previous layout in your iBird)

iBird

Back **Inbox** **Find** **Next >**

John Doe
27-09-2010

1 of 37
43

Dial **SMS** ☐ N ☐ AbN

27 **Report** **Notes** **NewV**

**** LANCET LABORATORIES ****
Practice Number : 5201055

TSHEPO-THEMBA LABORATORY
Tshepo-Themba Hospital
No 1 Roodeport Road
Dobsonville
1865

Report For: DR DARRYL VINE (DIEP)
KIMBERLEY ROAD
1862 DIEPKLOOF EXT DIEPKLOOF

Copies To:

Patient : JOHN DOE ID Num 7016115773086
Age/Sex/DOB 50 / M / 19600611
Pat Ref : P O BOX 1100 MedAid DISCOV 173261390
Memb MR J DOE
Lab Ref : 542110692 Tel (H) **074 5125713** (W) 011 772300

Service Date 22/09/10 0700 Registered 22/09/10 Report Date 27/09/10 1100 Order Site NKANZA TSHEPO-T

Tests :
ADDITIONAL INFO

***** BIOCHEMISTRY ***** **PAGE : 1**

Test	Result	Units	Reference
S-POTASSIUM	4.1	mmol/L	3.5 - 5.1
S-UREA, serum Pre-dialysi	26.4	mmol/L	*H 2.5 - 6.6
Urea Reduction Ratio	0	%	L 65 - 69
(N Engl J Med 329:1001, September 30, 1993)			
> S-CREATININE	997	umol/L	*H 80 - 115
> eGFR	5	mL/min	>60

Interpretation according to US Kidney Disease Outcomes Quality Initiative:

- < 15 : End Stage Kidney Disease (Stage 5 CKD)
- 15 - 29 : Severe renal impairment (Stage 4 CKD)
- 30 - 59 : Moderate Chronic Kidney Disease (Stage 3 CKD)
- >=60 : No evidence of renal dysfunction. Repeat annually.

Test	Result	Units	Reference
S-PHOSPHATE inorganic	0.77	mmol/L	L 0.87 - 1.45
S-ALBUMIN	40	g/L	35 - 50

100% Browse

Tools to manage incoming reports.

1. **SMS** (internet connection required)
Often a cell number is given on an incoming lab report. Simply use your mouse to select that number on the full report (see image on the previous page) and click in the white phone number box below the SMS button (this box has been highlighted in red). The phone number will be copied from the report into the white box (you can also type it if you prefer). Now decide if you wish to tell the patient that the report was normal (N) or ask them to contact your rooms regarding the result (AbN). Next click the SMS button. The SMS is logged on the notes page – see below.
2. **Dial** (Windows and iPhone only).
On the iPhone, the dial button will dial the number in the white box. This will also work on a Windows computer that has been set up with dialing enabled.

The screenshot shows the iBird interface with the 'Dial' tab selected. At the top, there are navigation buttons: '< Prev', 'Back', 'Inbox', 'Find', and 'Next >'. Below these, the patient's name 'John Doe' and the date '27-09-2010' are displayed. The 'Dial' tab is active, showing a text box for entering a phone number. The text box contains '27' and has a red border. To the right of the text box are radio buttons for 'N' and 'AbN'. Below the text box, there are radio buttons for 'day', 'wk', 'month', and 'year', with a red border around the 'day' and 'month' options. To the right of the text box is a 'Recall' button, also highlighted in red. Below the text box, there is a section for 'Lancet Labs' with the number '572110692' and 'BR:C 73404256876'. At the bottom, there are buttons for 'Notes', 'Log', 'c.c.', 'Tag', and 'Tag'.

3. **Recall**
On the top right of the Full report page, click the **Notes** tab (see image above). On the top left of this page (highlighted in red above) you will see that you are able to enter a number, elect day, week, month or year and iBird will calculate the recall date based on the current date. If you now click the **Recall** button (highlighted in red above) an email is sent to your receptionist (set up her email address in preferences) and an automated second email will be sent to both your reception and yourself a day before the recall date. Like the SMS this is logged on the **Log** tab.
4. **Tagging**
Clicking the **Tag** button tags the report so that you are quickly able to find it later (think of a bookmark) with the **FindTagged** script step. Un-tag with the button to the left of the Tag button

5. C.C.

This button takes the incoming report and makes it a clinical note in your clinical file (see Outgoing Chapter). Here you are able to forward that note to any doctor registered with the HPCSA in exactly the same way as you send referral notes or consultations.

6. Notes

Record any notes you might normally scribble on the paper report.

7. Log

This tab logs actions such as SMS sent, Recall Date...etc

Preferences

iBird allows you to customize your application.

From the Inbox, use the **Script** pull down menu and select **Preferences**.

The screen shot below shows the default tab, **General Preferences**.

If you hover over the labels on the left, tool tips appear which explain the options. Only the important options are documented here.

The first 7 fields are self explanatory, but must be completed before you are able to send reports (see Outgoing Chapter).

If you have a large screen you might want to choose a default **Zoom**. You might not want that zoom to apply to the Inbox because it is helpful to see as many records in the list as possible.

The **MaxID** field allows you to decide, on 1st use, if you want to download all your reports (recommended) or only those from a particular date (decide on a date and ask support what number corresponds to that date). 0 is the default option, because, even an iPhone can hold all the reports you will receive in a lifetime and it is really useful to be able to carry all those reports with you!

Please email support@bluebird.co.za if you need more information than the tool tips supply.

The screenshot shows the 'darrylv Preferences' dialog box with the 'General' tab selected. The dialog has a title bar with 'darrylv Preferences' and a 'Close' button. Below the title bar are four tabs: 'General', 'LetterHead', 'Language', and 'Monitor'. The 'General' tab is active, showing a list of fields for user information and application settings. Fields include UN (darrylv), MDId (0251208), Title (Dr.), FirstName (Darryl), LastName (Vine), Specialty (Obgyn), DefaultNote (Consult), Zoom (radio buttons for 100, 150, 200, and Yes/No), MaxID (2829312), Language (radio buttons for English and SL), OpenSend (radio buttons for Yes/No), OpeningSort (radio buttons for Yes/No), RoomsEmail (darryl@bluebird.co.za), Dr Email (obgyn@bluebird.co.za), Navigate (radio buttons for Yes/No), SendTimer (radio buttons for Yes/No), EnableTimer (radio buttons for Yes/No), Timer Interval (600), Enable Clinic (radio buttons for Yes/No), URL (intelms.com), ServerNo. (Access (xserve.bluebird.co.za)), BUonExit (radio buttons for Yes/No), DaysFind (radio buttons for Yes/No), Ask empty Folder (radio buttons for Yes/No), ShowTooltips (radio buttons for Yes/No), Debug Plug (False), and SMTP enable (Yes). A tooltip is visible over the 'Navigate' field, stating: 'Your personal email address Where we notify you if reports cannot be delivered'.

darrylv Preferences Close

General LetterHead Language Monitor

UN darrylv

MDId 0251208

Title Dr.

FirstName Darryl

LastName Vine

Specialty Obgyn

DefaultNote Consult

Zoom ☐ 100 ☐ 150 ☐ 200 ☐ Yes ☐ No In

MaxID 2829312

Language ☒ English ☐ SL

OpenSend ☐ Yes ☐ No

OpeningSort ☐ Yes ☐ No

RoomsEmail darryl@bluebird.co.za

Dr Email obgyn@bluebird.co.za

Navigate ☐ Yes ☐ No

SendTimer ☐ Yes ☐ No

EnableTimer ☐ Yes ☐ No

Timer Interval 600

Enable Clinic ☐ Yes ☐ No

URL intelms.com https://zeus.intelms.com/SOAP/?wsdl

ServerNo. Access (xserve.bluebird.co.za)

BUonExit ☐ Yes ☒ No

DaysFind ☐ Yes ☐ No

Ask empty Folder ☐ Yes ☐ No

ShowTooltips ☒ Yes ☐ No

Debug Plug False SMTP enable Yes

The screen shot below shows the **Letter Head** Preferences tab.
This tab allows you to decide whether you wish to print a letterhead (select **No** if you use preprinted stationary).
If you choose **Yes**, please fill in the information you would like to appear on your letterhead.

The screenshot shows a dialog box titled "darrylv Preferences" with a "Close" button in the top right corner. Below the title bar are four tabs: "General", "LetterHead", "Language", and "Monitor". The "LetterHead" tab is selected. Inside the tab, there is a "Print" section with two radio buttons: "Yes" (which is selected) and "No". Below this, the dialog is divided into three text input areas. The "Left" area contains the address "16 Apostle Rd", "Llandudno", and "7806". The "Right" area contains "Office: 021 7903641", "Emergency: 082 7843353". The "Center" area contains "Dr Darryl Vine", "Obstetrician & Gynaecologist", and "MBChB FRCSC".

The left block is used for your address, the right for phone numbers and the center for your name, degree etc.

The image below shows the **Language** Tab.

This is the Tab that is used to insert the labels in your notes.

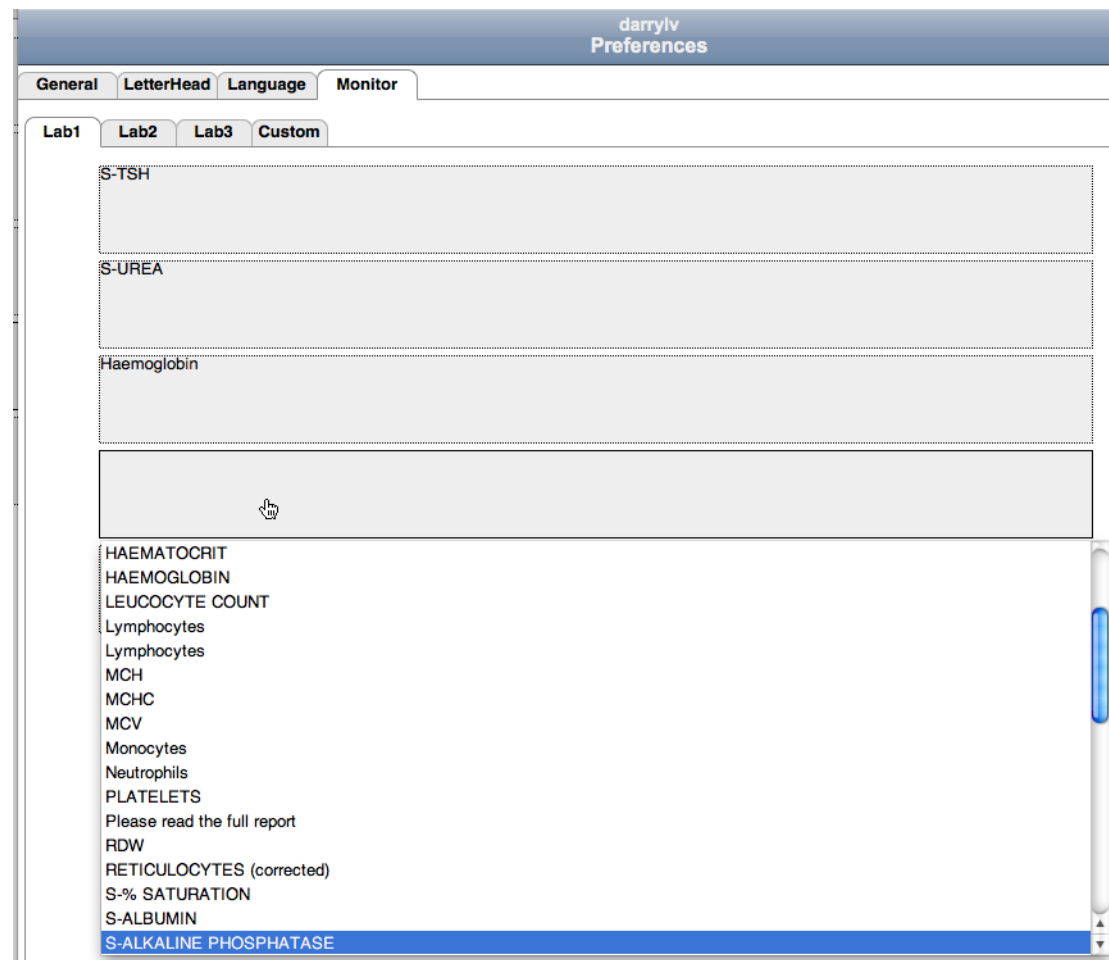
You are able to insert a second language (SL).

If you choose SL as the default under General Preferences, your SL language will be the label used for your clinical notes (Discharge Summaries, Referrals, Consults).

Afrikaans has been inserted by default, but you are able to override and use any language you choose.

English		SL
Dear	1	Beste
Your recent tests were normal	2	U laaste toetse was normaal
Your test results are back please call my rooms	3	U toetsuitslae is terug, skakel asseblief my spreekkamer
From:	4	Van:
To:	5	Na:
c.c.	6	c.c.
Date:	7	Datum:
Patient:	8	Pasiënt:
DOB:	9	DOB:
Complaint:	10	Klagte:
History:	11	Geskiedenis:
Examination:	12	Ondersoek:
Assessment:	13	Assessering:
Plan:	14	Hantering:
Name:	15	Naam:
Folder:	16	Lêer:
Time:	17	Tyd:
Allergies:	18	Allergie:
PMHx:	19	Mediese Geskiedenis:
PSHx:	20	Operasies:
Current Medication:	21	Huidige Medikasie:
Note:	22	Note:
ProblemList:	23	Probleem Lys:

The image below shows the **Monitor** Tab.
This is the Tab that is used to insert the names of the Lab tests you want to graph as a group.



In the screen shot above you will note that there are 3 **Lab** tabs and a **Custom** Tab.
The **Custom** Tab is reserved for future use.

Each **Lab** Tab allows you to choose 5 tests that you wish to graph as a group. These are the 15 graphs you access from the graph icon on the **Inbox** layout.

Because you might use more than one lab and even one lab might call the same test different names (e.g. English and Afrikaans) and because the labs do not yet standardize the codes for those tests, Bluebird offers the ability to enter more than one name in each field for the same test (e.g. S-Urea and Urea). Just be sure that each test is entered on a new line (in the same field or gray box above).

Wait until you have some tests downloaded and then you will see that the fields above have drop-down lists based on the names of those downloaded tests (important so you call the test the same name as your Lab). You can hold down the **Control** key on Windows, or the **Command** key on an Apple Mac, to select multiple names for the same test (i.e. from different Labs or if you get tests in different languages). Once you have made your selection use the **Enter** key to enter that selection.

Outgoing

Speaking as a medical specialist, one of the things we do badly is let primary doctors know timeously what happened to their patients. Ideally, **Discharge Summaries** and **Consultation Notes** should reach the GP before that practitioner is called upon to render treatment. Similarly, specialists deserve a legible **Referral Note**, clearly stating the reason for the referral.

In an attempt to assist this process Bluebird offers, without charge, 2 tools to facilitate this process: 1) Our Word plug-in which allows information in MSWord to be moved to any doctor registered with the HPCSA and 2) iBird's Clinical Notes.

The screenshot displays the iBird Clinical Notes interface. At the top, there are buttons for 'Inbox' and 'List', and a 'Send' button. Below these, patient information is shown: 'Folder: doe 001', 'Name: Mr John Doe', 'DOB: 11-06-1960', 'Date: 13-10-2010', and 'Time: 18:02'. A 'Detail' button is visible. The main section is titled 'Refer / Consult' and includes tabs for 'Discharge' and 'Specialty'. Under 'Refer / Consult', there are radio buttons for 'Referral', 'Consult' (selected), 'Discharge', and 'Measure'. The 'Reason for Admission' is 'Cough'. Other fields include 'Date Admission: 01-02-2000', 'Date Discharge: 01-05-2000', 'Key Findings: reflux', 'Procedures IP: Gastroscopy', 'SI IP Results: CXR - N', 'SI IP Pending: Nil', 'Patient Education: Done', 'Discharge Diagnoses: Reflux', 'Discharge Condition: Stable', 'Discharge Medications: Ulsanic 10 mg BD', 'Discharge Destination: Home', 'Discharge Plan: FU in 6/52', 'Anticipated Problems: Nil', and 'Outstanding Issues: Nil'.

Use the blue **Clinic** button on the Inbox layout to access the list layout of clinical notes. Click any record on that list to see the screen shown above.

On the screenshot on the previous page, I have highlighted a number of features in red.

- **New**
This button allows one to make a new clinical note.
- **Send**
This button allows one to send that note to any doctor (registered with the HPCSA) via Bluebird and to notify that recipient doctor (by both SMS and email) that that note is waiting on the Bluebird Hub, all without any cost to either the sending or receiving doctor. Importantly, once sent, the onus is on the receiving doctor to read the note and the sending doctor's responsibility for delivery has been met. The last point is important because it is well shown that > 50% of the time that clinical documents fail to reach the primary doctor timeously, the problem is the delivery rather than the generation of that document ([Canadian Fam. Physician 2002](#)). Of course, Bluebird also provides tools to facilitate the generation of clinical documents.
Note: 1) Once sent (or printed) clinical notes become medico-legal documents and can no longer be altered. 2) Sending requires an Internet connection (outgoing reports are queued in the SMTP file).
- **Graph**
The graph button, like the one on the Inbox layout, allows one to instantly create a group of graphs. This time the graphs are based on clinical data documented by the user (pulse, BP, RR etc) in clinical notes for that patient.
On either side of the graph button one finds the previous and Next buttons < and >. These buttons allow you to navigate back and forth in your clinical notes without going back to the [Clinical List View](#).
- **To**
This button allows one to route the note to any doctor/s registered with the HPCSA and is described in more detail below.
- **Detail**
This button allows one to add more granular information to that clinical note and is described in more detail below.
- **Pop up menu**
One of the main reasons behind Bluebird's success over the last 15 years has been our portfolio of tools that allow doctors to generate medico-legal documents *effortlessly and rapidly*. Choosing from a pop up list or clicking on a radio button is faster than writing, typing or even dictating. Of course you want your own choices in the pop up lists. To do this use the script menu and choose [Values](#). You will see the screen below. More detail is given in the Additional Files Chapter.

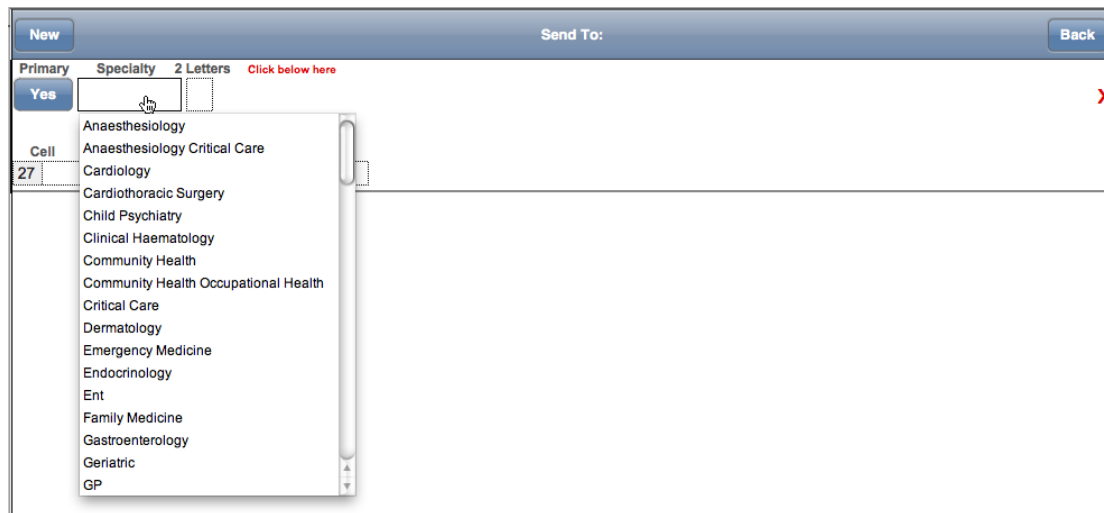
Find	RfCon	Discharge	New	Close	Values must be separated by carriage returns to be seen as separate items in the value list (and that also means that you cannot use carriage returns within one item in the list)	
ReasonAdmission	KeyFindingsIP	Procedures	Investigations	Education of Patient	Discharge Dx	Discharge Condition
Elective c/s	38 wks with low lying placenta	LSCS	Hb 9.5	Breastfeeding classes	Well post LCSC	Well
Chest pain						



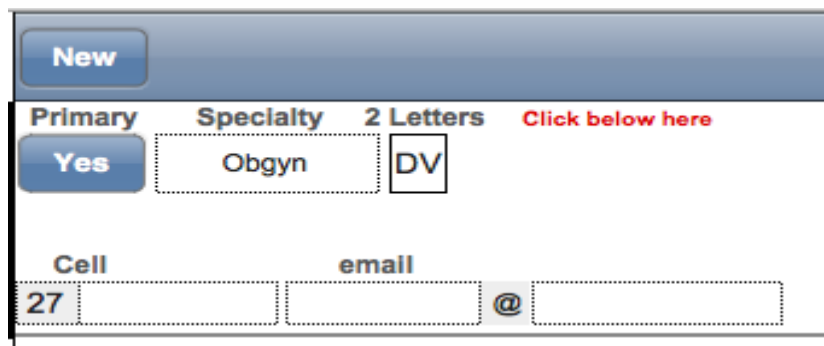
Clicking the **To** button brings up the screen below which allows one to route the note to any doctor/s registered with the HPCSA.

One tags the primary doctor (the first one chosen by default) with the Blue button on the left below the word primary. Additional doctors become c.c. doctors.

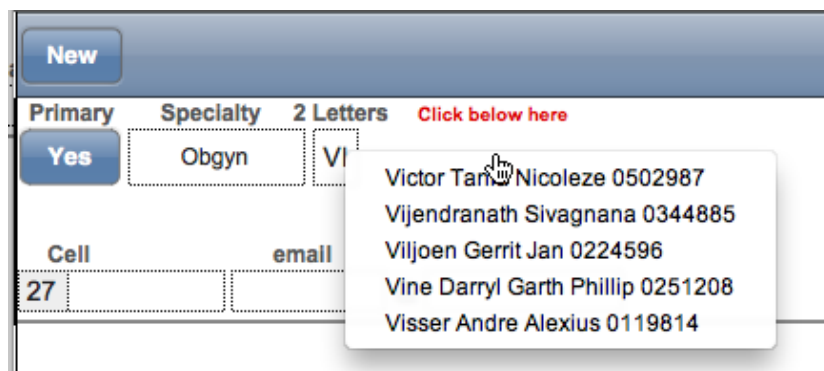
First, choose a specialty from the pop up menu.



Next type the first 2 letters of the recipients surname into the box under the heading **2 letters**. (There are about 40 000 potential recipients, so the first 2 processes are designed to limit the final pop up menu).



Next click below the heading **Click below here** and select the recipient.



For Bluebird to notify your recipient that you have sent him a note which is waiting for him / her on the Bluebird Web Service (and thus end your responsibility) we need the recipient doctor's current email and mobile number. We cannot accept notes without that information (because, without it, we cannot ensure that the recipient is notified).



To add more recipients use the **New** button on the top left of the page. If you wish to remove that recipient, use the **Red Cross** on the right of the page.

Once done, click the **Done** button on the top right of the page to return to your clinical note.

Please note that besides Discharge Summaries there are 2 other Tabs on the clinical note. **Refer / Consult** allows one to quickly generate referral and consultation letters and the **Specialty** Tab allows future add-ons for all types of Specialty notes (cardiology, neurology, OBGYN etc, etc.). Your IBird has been designed to be *extendible*. Two of the early extensions will be the **Rx** and **SI** forms which will allow you to generate prescriptions and requisitions (just like Bluebird's EMR).

If you use the patient data (PD) file, described in the **Additional Files Chapter**, you can enter the folder number for that patient and, previously documented clinical data, such as allergies, will automatically be added to your note.

Inbox List < > Send New

Folder: doe 001 Date: 13-10-2010
Name: Mr John Doe Time: 18:02
DOB: 11-06-1960

To: Darryl Garth Phillip Vine Obgyn Detail Rx SI

Refer / Consult Discharge Specialty
☐ Referral ☒ Consult ☐ Discharge ☐ Measure
Note Vitals Custom OfficeT

Complaint:

History:

Examination:

Assessment:

Plan:

The clinical forms have been designed to be simple and by default show only the core data needed for either a referral note or consultation letter. We anticipate that some doctors will:

- Want to sent more detail
- Keep summary information on that patient to facilitate rapid creation of future clinical documents

This is the function of the **Detail** button, seen in the top middle of the picture above. Clicking that button takes one to the screen on the next page.

The note detail page, shown below, allows one to add demographic, insurance and core clinical data (Allergies, PMHx, PSHx, Rx....) to your note. Further, if you had chosen a folder number for that patient, that summary will be added to your PD file for this patient when you click the **Back** button on the top right. This means that future clinical notes for that patient will be pre-populated with this information, an important time saver.

Clicking the **Back** button returns you to the clinical note.

Mr John DoeBack

This page allows you to add information to your note.
If you selected a folder number (when creating this note) this page will update your PD file.

Demographics Insurance Clinical

Folder: doe001

Title	Mr
FirstName	John
LastName	Doe
DOB	11-06-1960
Age	50
Address	16 Tulip Dr.
Gender	<input checked="" type="radio"/> M <input type="radio"/> F <input type="radio"/>
IDNumber	123456677
CellCountry	
Dial	Cell
email	
	@
domain	

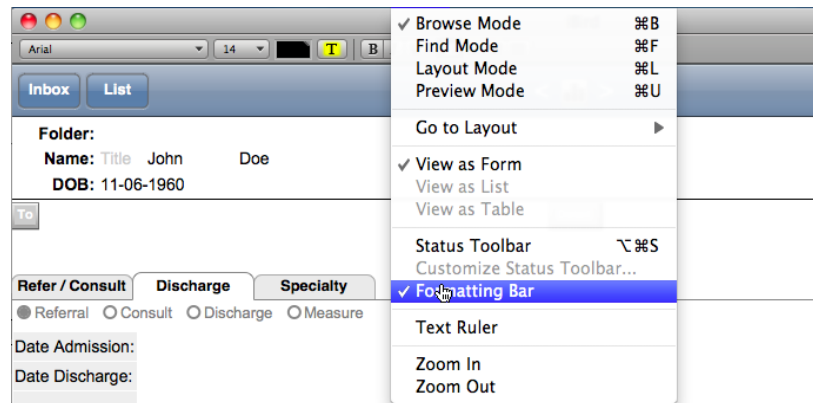
IBird includes a word processor (see next page)

Word Processing

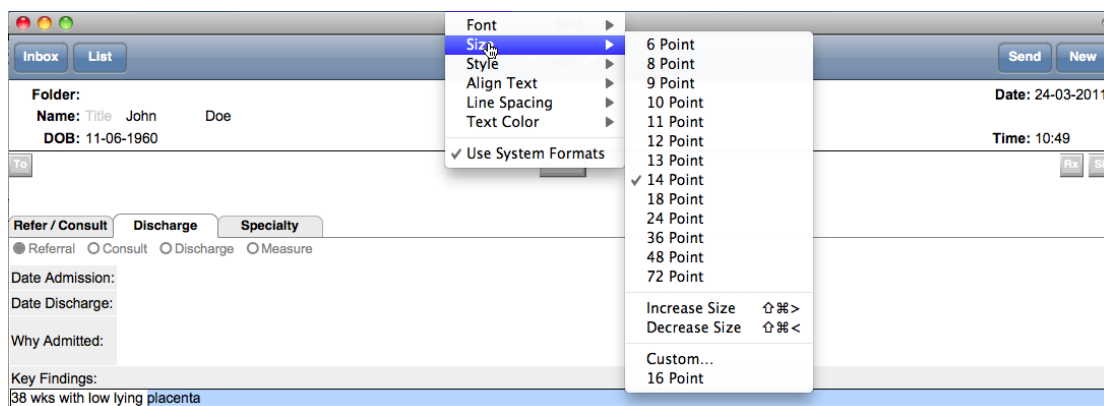
iBird includes a full word processing package (you do not need to purchase another word processor such as MSWord licenses).

Formatting can be accessed in 3 ways:

1. Select the **View** menu from the pull down menu at the top of the page and click **Formatting Bar** (see below). A formatting bar (the line with the yellow T) is now available to quickly edit text.

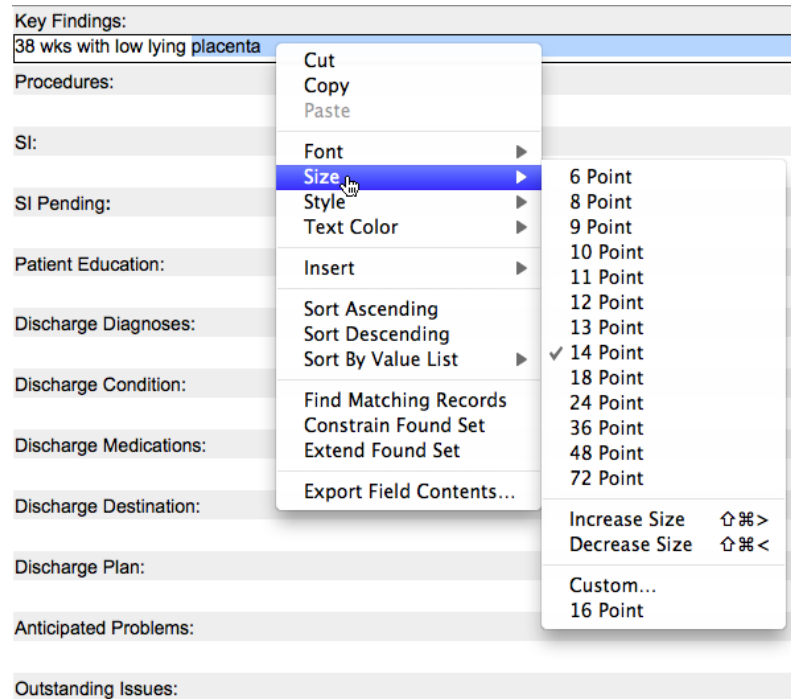


2. Highlight the text to be formatted and select the **Format** menu from the pull down menu at the top of the page (see below)



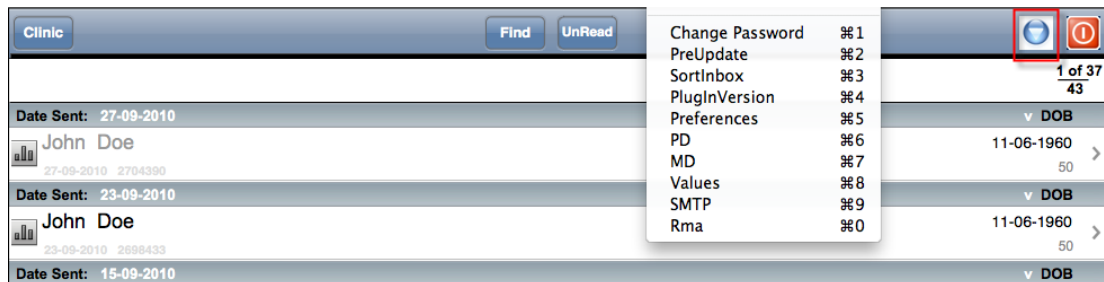
Continued on the next page

3. Highlight the text to be formatted and right click (or click with cntr held down on the Mac). Formatting choices will be offered (see screen shot below)



Additional Files

The Script menu, shown below from the Inbox, allows you access to additional files. Preferences have already been dealt with in detail. This chapter gives information about the Patient Data (PD), Doctors (MD), Values, SMTP and Medical Aid (Rma) ancillary iBird files.



The Patient Data file allows you to allocate a unique identifier to a patient (in the format VIN 001 where the letters are the first 3 letters of the surname and the number the sequential number of patients whose surname begins with those 3 letters. Typing that folder number in your clinical notes can access any information you record in this file.

A screenshot of the Patient Data form. The form has tabs for 'Demographics', 'Insurance', and 'Clinical'. The 'Demographics' tab is active. The form contains fields for 'Title', 'FirstName', 'LastName', 'FolderPrefix', 'FolderSuffix', 'Folder', 'DOB', 'Age', 'Address', 'Gender', 'IDNumber', 'CellCountry', and 'email'. A red box highlights the 'GP' field, which contains the text '2 Letters' and 'Click in the box'.

Ideally each patient should be allocated to a GP. The box highlighted in red above allows you to select a GP from the MD file and have that GP's details assigned as the primary doctor when you create a clinical note.

The Medical Doctor file lists all the doctors registered with the HPCSA. Whenever you use the **To** button in your clinical notes, information from this file auto-populates that record. Also, when you add cell numbers and email addresses to that record, it will auto-update the MD file.

Note: While we will try and keep your MD file updated, you can look up any doctor's HPCSA number on this website <http://iregister.hpcsa.co.za/> (In fact, later versions of iBird have a tab on the layout above called **HPCSA** which is a window into the HPCSA website). Note: The URL for the HPCSA website can be changed in the Preferences file.

The Medical Aid file lists the medical aids in South Africa.
Doctors to whom you refer a patient might appreciate you including their insurance information.
Updated information is supplied by subscribing to the Medprax service
<http://www.medprax.co.za/>

Find		Med Aid	271 of 1172 1172	Close
STATUS	PSEU COMP75 QEDI 129P	COMPCARE MOSMED PMB CHRONIC	>	
STATUS	PSEU COMP76 QEDI 129P	COMPCARE STATUS STATMED PMB CHRONIC	>	
STATUS	PSEU COMP77 QEDI 129P	COMPCARE MANAGEMED LOW PMB CHRONIC	>	
WORKMANS COMP	PSEU WCA101 QEDI 704P	COMPSOL WCA COMPSOL ACUTE	>	
CHP	PSEU CHP001 QEDI	CO-ORD HEALTHCARE FLEXIBLE HEALTH 11	>	
CHP	PSEU CHP002 QEDI	CO-ORD HEALTHCARE FLEXIBLE HEALTH 1	>	
DE CAAN	PSEU COUN01 QEDI	COUNCIL MED TRUST COUNCIL MED TRUST	>	
DISCOVERY	PSEU CSIR03 QEDI 125P	CSIR MEDICAL SCHEME ESSENTIAL ACUTE	>	
DISCOVERY	PSEU CSIR05 QEDI 125P	CSIR MEDICAL SCHEME SURGICO	>	
DISCOVERY	PSEU CSI03C QEDI 125P	CSIR MEDICAL SCHEME ESSENTIAL CHRONIC	>	
DISCOVERY	PSEU CSIR06 QEDI 125P	CSIR MEDICAL SCHEME ESSENTIAL PMB CHRONIC	>	

The Values file allows you to customize the pop-up menus in your clinical notes.

Each record adds a new value to the pop-up list.

Note: This file extends to the right of your screen and you will need to scroll right to enter all the choices.

Make a new record with the **New** button.

The page below shows Discharge Summary choices; use the **RfCon** (ReferralConsult) button to move to the ReferralConsult layout and vice versa.

Find	RfCon	Discharge	New	Close	Values must be separated by carriage returns to be seen as separate items in the value list (and that also means that you cannot use carriage returns within one item in the list)	
ReasonAdmission	KeyFindingsIP	Procedures	Investigations	Education of Patient	Discharge Dx	Discharge Condition
Elective c/s	38 wks with low lying placenta	LSCS	Hb 9.5	Breastfeeding classes	Well post LCSC	Well
Chest pain						

iPhone / iPod / iPad

You iBird has been designed to run on mobile devices such as the iPhone, iPod Touch and iPad. To accomplish this you will need iTunes on your computer and you will need to purchase the database engine **FMGo** from the **iTunes App Store** at a cost of approx:

- \$20 for the iPhone / iPod
- \$30 for the iPad

Be sure to update both your iTunes and mobile device with the latest updates *before* installing FMGo

Why bother with these devices?

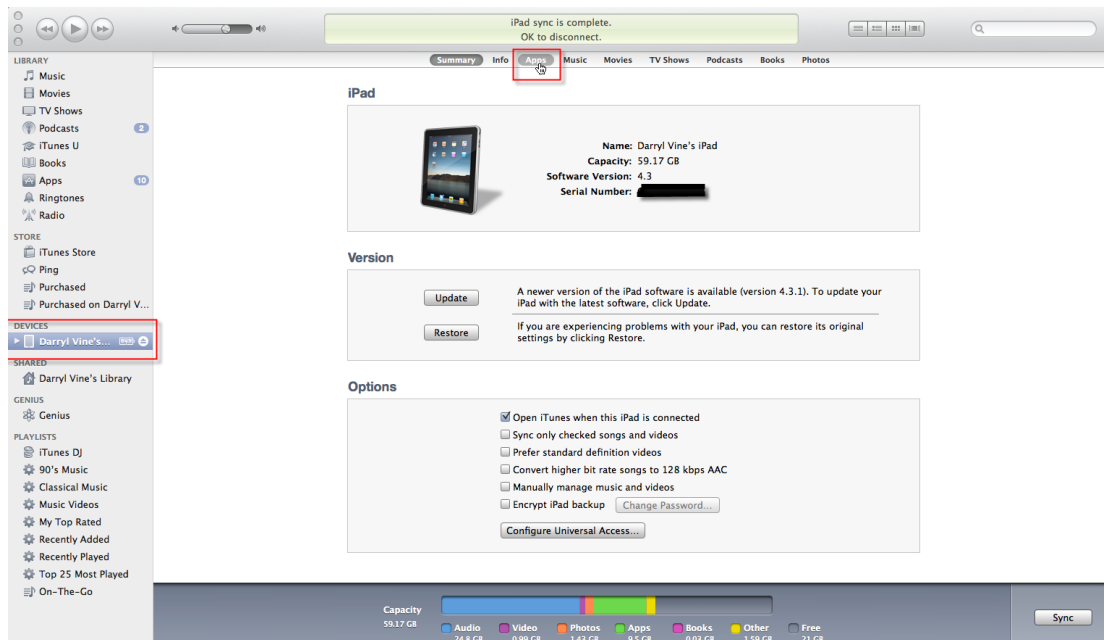
- As a back up of your PC iBird
- Carry huge amounts of patient data with you e.g. those that have been Bluebird subscribers over the last 10 years now can carry 10 years worth of lab and radiology reports in their pocket!
- Mobile access is not dependent on an Internet connection. This is why you buy FMGo. The data lives on your phone (although it can be updated via the Bluebird Hub). This not only makes it much quicker (read decreased frustration), but if you cannot access the Internet, you can still read reports.

Please see the next page for instructions on moving your iBird files to your mobile device.



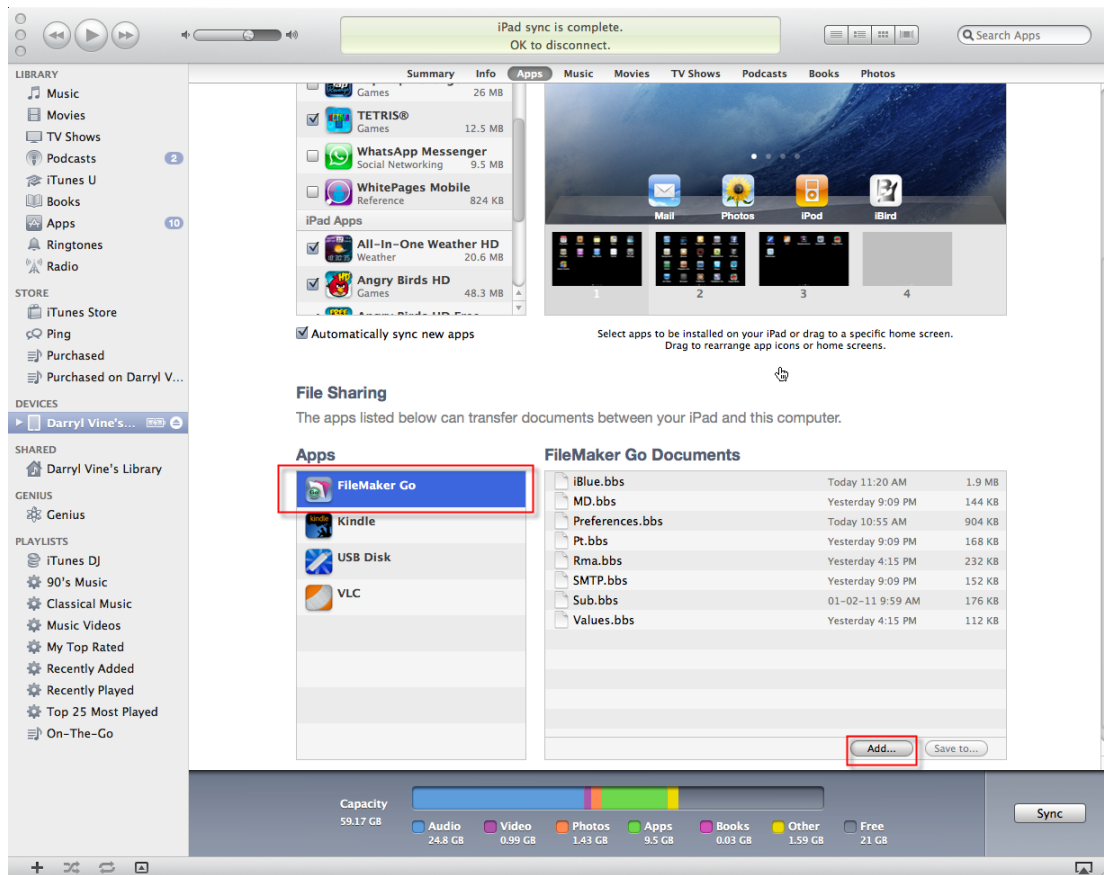
How to move iBird files to your mobile device

1. Connect your device to your computer
2. In iTunes, select the device from the menu on the left (highlighted in red below)
3. Click the **Apps** button, also highlighted in red below



Continued overleaf

4. Click on Filemaker Go (highlighted in red below)
5. Click the Add button



Continued overleaf

Using the pop-up box that appears, navigate to the directory that holds your iBird files

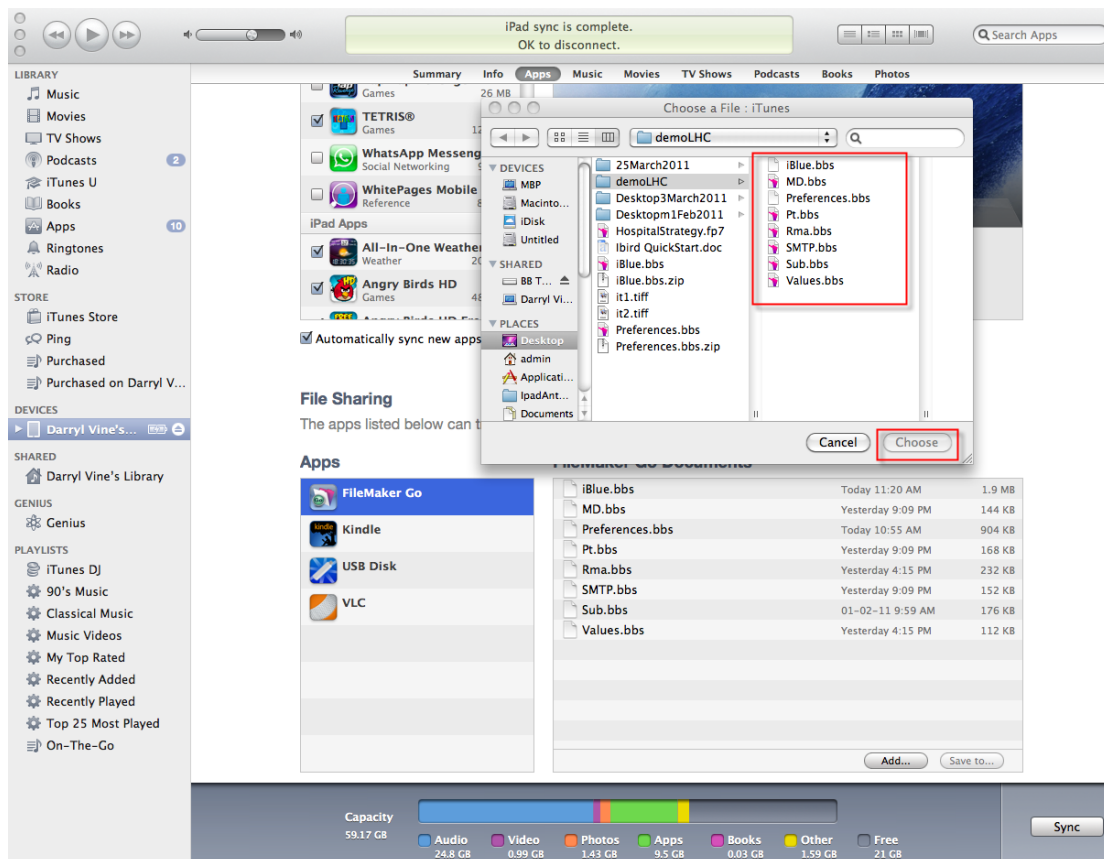
Windows C:\Program Files\iBird

Apple Mac Macintosh HD/Applications/iBird

On the Mac, the path above depends on what you have called your hard drive

6. Select the following 8 files (highlighted in red below)

- iBlue.bbs
- MD.bbs
- Preferences.bbs
- Pt.bbs
- Rma.bbs
- SMTP.bbs
- Sub.bbs
- Values.bbs



7. Click the Choose button

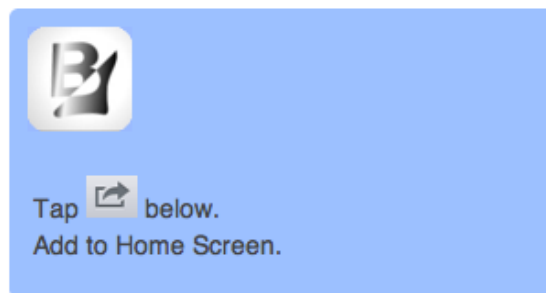
Your iBird files will now be on your mobile device.

Adding the Bluebird icon to the Home Screen of your mobile device.

When opening iBird on a mobile device, it is very useful to have a shortcut to the iBlue.bbs file on the Home Screen of your mobile device (the alternative is to click on Filemaker Go and then select the iBlue.bbs file)

Creating a shortcut is easy to accomplish.

1. Open the Safari browser on your mobile device
2. Go to
 - a. intelms.com/a for the iPhone and iPod
 - b. intelms.com/b for the iPhone and iPod
3. Follow the instructions on the browser screen (see below)



Plug-in for MS Word

Many practices create documents in Microsoft Word. Many specialists dictate consultations, which are then transcribed, into MS Word. Those documents are then printed and delivered to the referring doctor.

There are problems:

- Reliable and auditable document **delivery**.
- **Cost** of printing (printer cartridges, manpower), envelopes, sorting and delivery.
- **Cost** of keeping an easily accessible copy (paper or electronic – paper means printing, filing and storage, electronic means storage and a system that allows easy retrieval of that electronic document)

To solve these problems, I instructed Bluebird's software engineers to develop an add on (plug-in) for MS Word that would enable reports typed in Word to be automatically moved via the Bluebird Hub, to the specified doctor. Furthermore, that doctor would be notified that a report, written by Doctor X (for patient Y) was waiting on the Hub for them to read.

The result was Bluebird's Word plug-in, a free add on to Word which empowers any Bluebird enabled practice with an Internet connection to effortlessly:

- Digitally sign the document
- Securely route the document via the Bluebird Hub to the referring doctor
- Keep an encrypted copy in the Bluebird vault
- Notify the recipient doctor (by email and SMS) that the report is waiting (which moves the onus for delivery from the sender to the recipient)

By making this solution easy, free and reliable, I am hoping to appeal not only to specialists sending consultation reports, but also GPs sending referral notes. If Bluebird is able to facilitate the delivery of both referral and consultation notes, I believe we will improve healthcare which is my primary motivation in making the software *and* the delivery service free.

The Bluebird Word Plug-in consists of 2 parts:

- Sending engine
- Templates (Referral, Consultation, Discharge Summary.....)

Minimum System Requirements for Bluebird's Word Plug-in

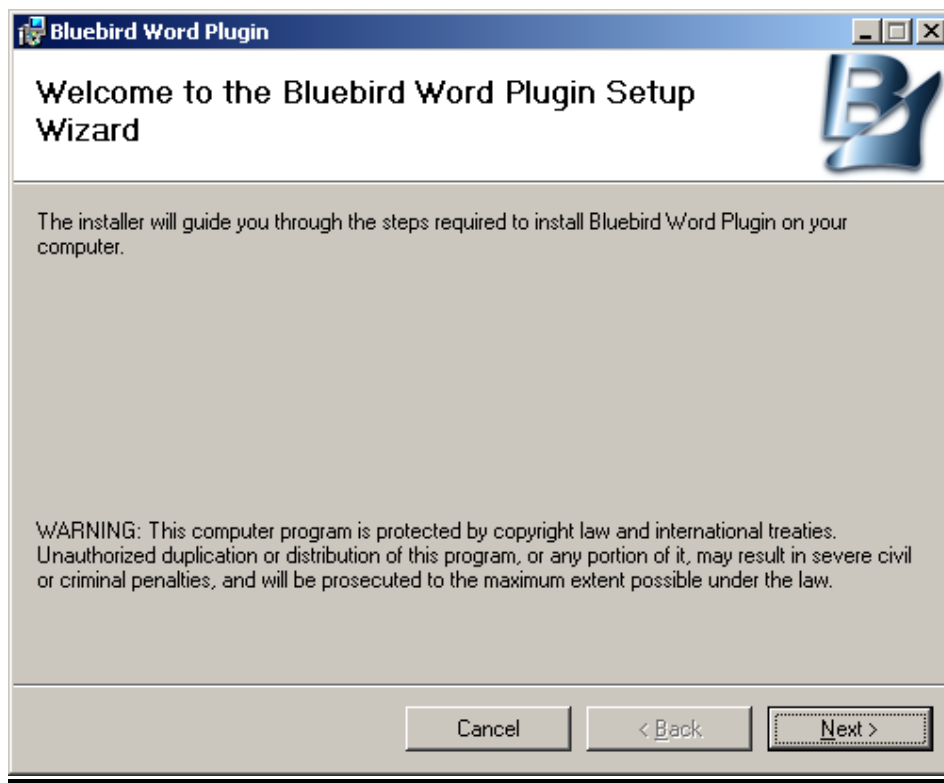
- Permanent **Internet** connection
- **Windows** Vista or better (**Note**: Windows XP with *service pack 3* and the *.Net Framework* installed will also work, but these installations are not supported by Bluebird)
- Microsoft **Word** 2007 or better

If you are not a registered Bluebird user, apply here:

Bluebird.co.za/d

Once you complete the on-line application, you will receive an email with a download link to the Bluebird Word Plug-In (existing users have that email, if you can't find it, simply fill in the form again and a new one will be emailed to you).

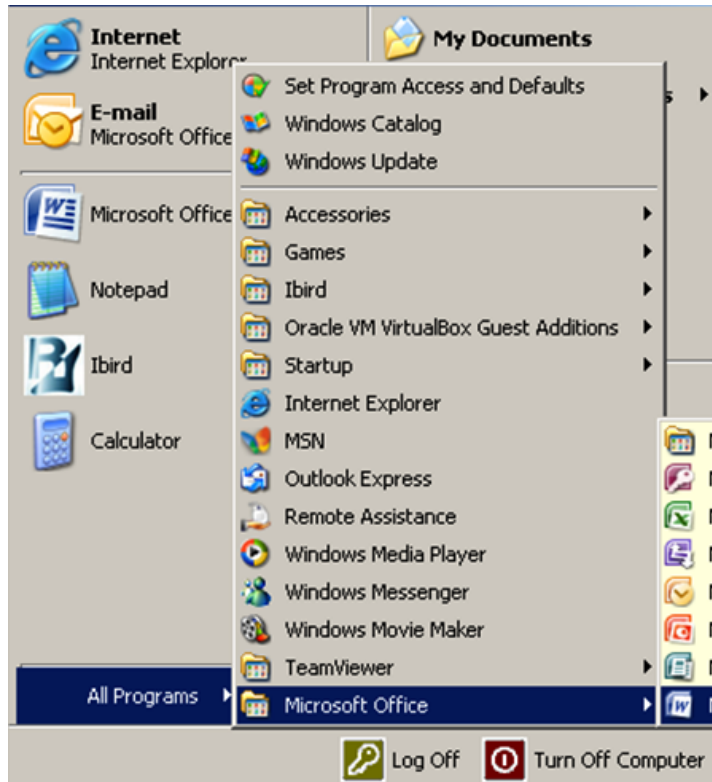
Double clicking the installer brings up the install wizard as shown below.



Set up

After installing the Bluebird MS Word plug-in, your plug-in needs to be customized.

Open Microsoft Word (click the “Start” menu, select “All Programs”, select “Microsoft Office”, select Microsoft Word).



Continued overleaf

Once Word is open click the “Bluebird Send” tab (red ring below), then click “Configuration” (red ring below).



Enter your details:

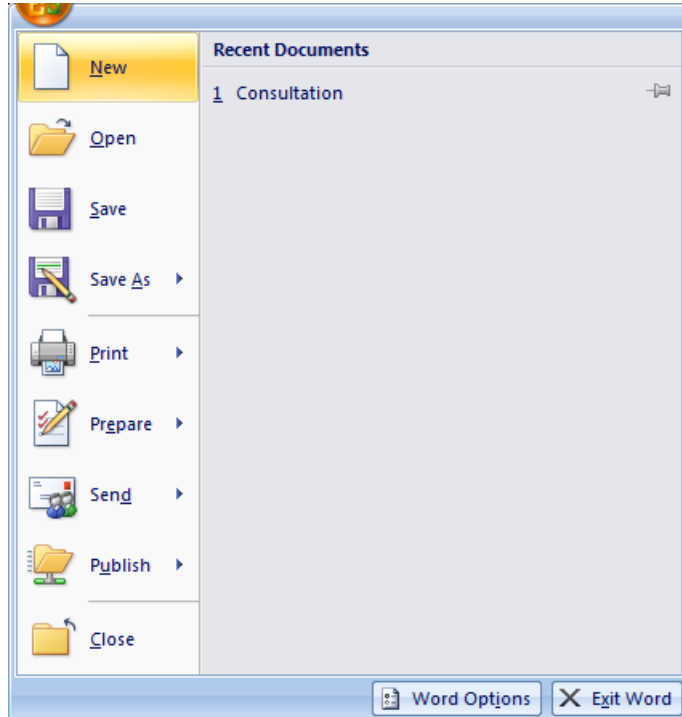
A screenshot of the 'Bluebird Word Send Configuration' dialog box. The title bar reads 'ConfigForm'. The main title is 'Bluebird Word Send Configuration'. The form contains the following fields: 'First Name' with the value 'Jacques', 'Last Name' with the value 'Kotze', 'HPCSA Number' with the value '0251208', 'Practice Number' with the value '0251208', 'Email' with the value 'bluebirdmng@gmail.com', and 'Cell' with the value '27793586051'. There is an example text '(Example: 27821231234)' next to the cell field. Red asterisks are placed to the right of the First Name, Last Name, HPCSA Number, Practice Number, and Email fields. At the bottom are 'Save' and 'Cancel' buttons.

Congratulations, you are ready to use Bluebird’s Word Plug-in!

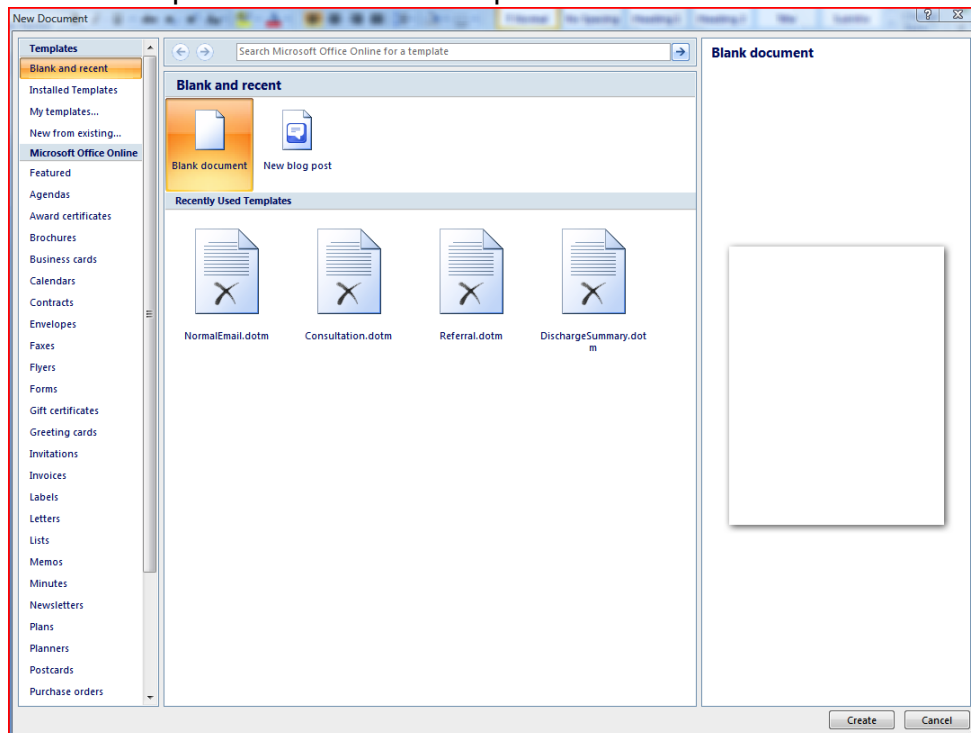
Using Bluebird's Word Plug-In

Open Microsoft Word

Select "New" in the Microsoft Word menu in the top left corner of the Word window.

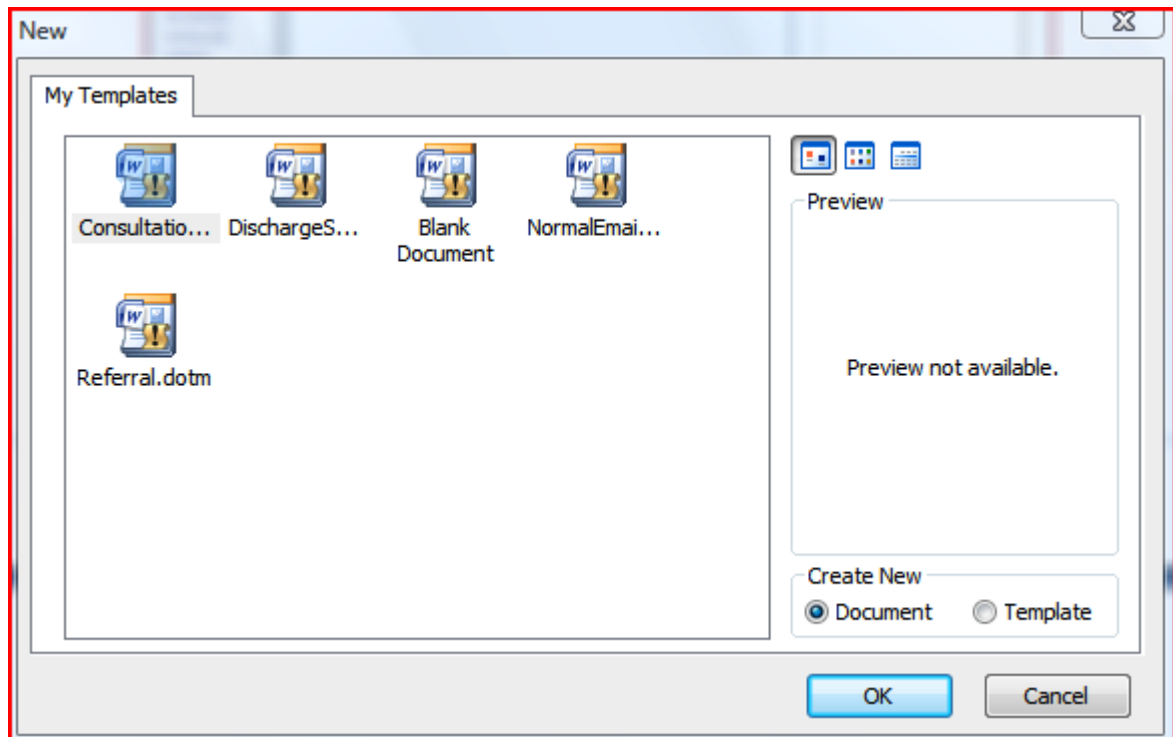


You will be presented with these options:



Choose “My Templates”

You will be presented with the following window



Choose the note type you wish to create (typically Consultation, Referral or Discharge Summary).

The next page will walk you through a Consultation Report.

Consultation Template

Bluebird Consultation

Recipients*

Recipients*	HCPSA Number*	Email Address*	Cell Number*
<small>Note: Cellular numbers must be entered in international format, without a leading plus sign. For example: 27821231234</small>			
Recipient*	HCPSA number	Email address	Cellular phone number
Recipient	HCPSA number	Email address	Cellular phone number
Recipient	HCPSA number	Email address	Cellular phone number

Patient Information and Routing*

First Name*	Click here to enter text.	Last Name	Click here to enter text.
Date of Birth*	Click here to enter a date. (yyyy/mm/dd)		
Gender*	Choose an item.		
ID Number*	Click here to enter text.		

Consultation

Click here to enter text.	Date: Enter a date. (yyyy/mm/dd)	Time: Enter a time. (hh:mm)
Problem	Click here to enter text.	
History of the problem	Click here to enter text.	
Allergies	Click here to enter text.	
Medication		
Current	Click here to enter text.	
Past	Click here to enter text.	

Patient History

Medical History	Click here to enter text.
Surgical History	Click here to enter text.

Page 1 of 2

Fields marked with an * (see below) are required.

Patient Information and Routing*	
First Name*	Click here to enter text.
Date of Birth*	Click here to enter a date.
Gender*	Choose an item.
ID Number*	Click here to enter text.

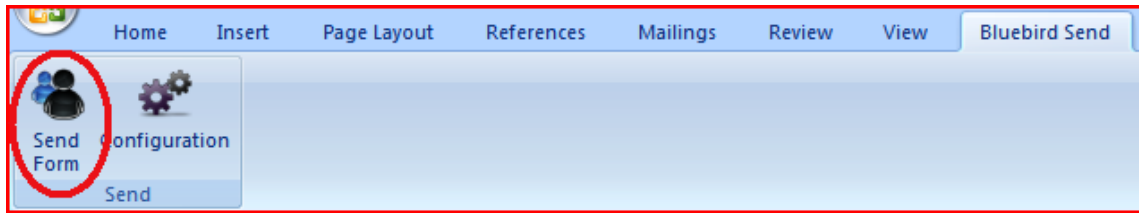
The document cannot be sent if any of these fields are empty e.g. if you try to send the document with an empty HCPSA field you will see the image below:

Invalid Recipient

Please enter the HCPSA number of the recipient

OK

Once the document is complete, send it by clicking the “Send Form” button (located in the “Bluebird Send “ tab in the Word menu).



If you did not complete the set up process (described earlier) you will be taken to the configuration screen and given another opportunity to customize your plug-in.

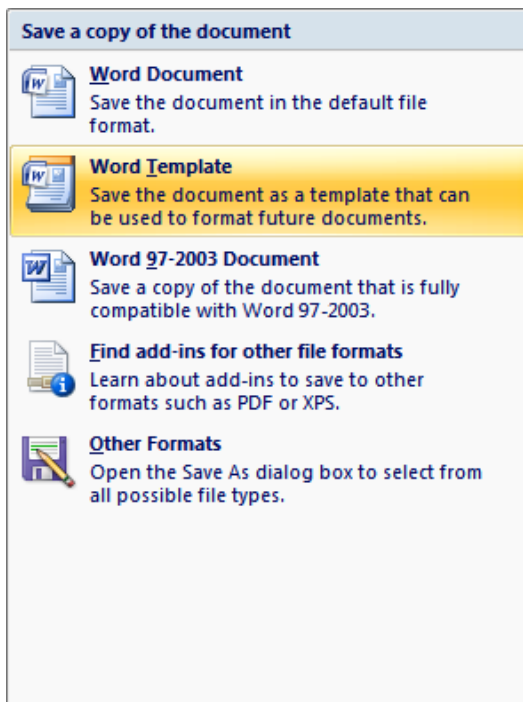
Adding a new template

If there is demand, Bluebird will design new templates for various specialists (think Cardiology, Nephrology.... Surgical Procedures.....).

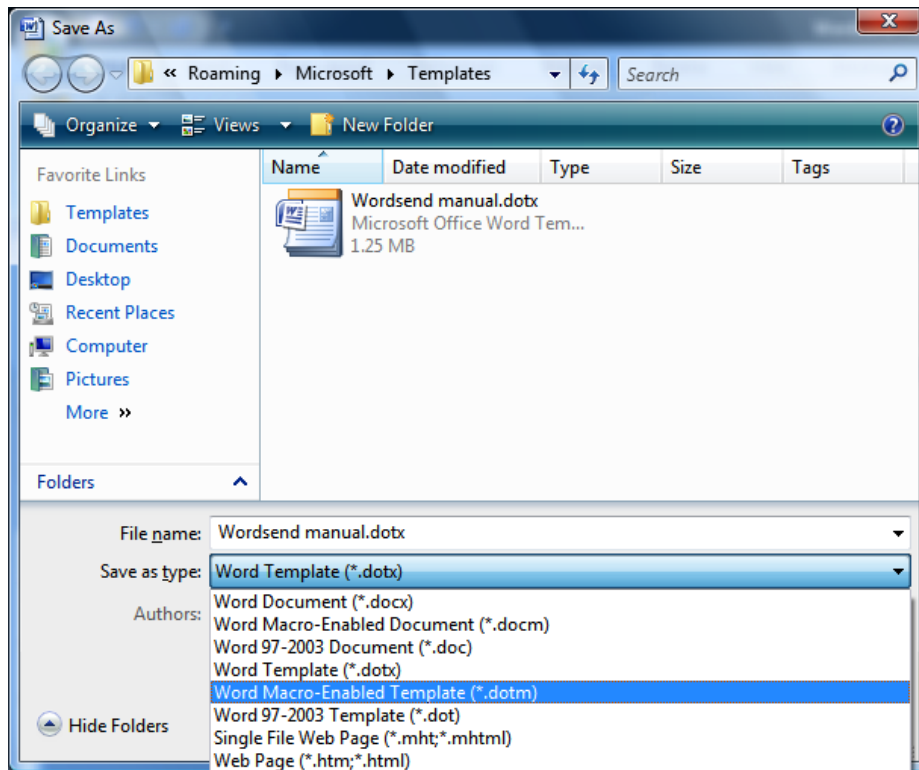
To add a (Bluebird supplied) new Template, just double click that template.

This will open the new template in Microsoft Word.

Click the Word Menu and select “Save As” then select “Word Template”



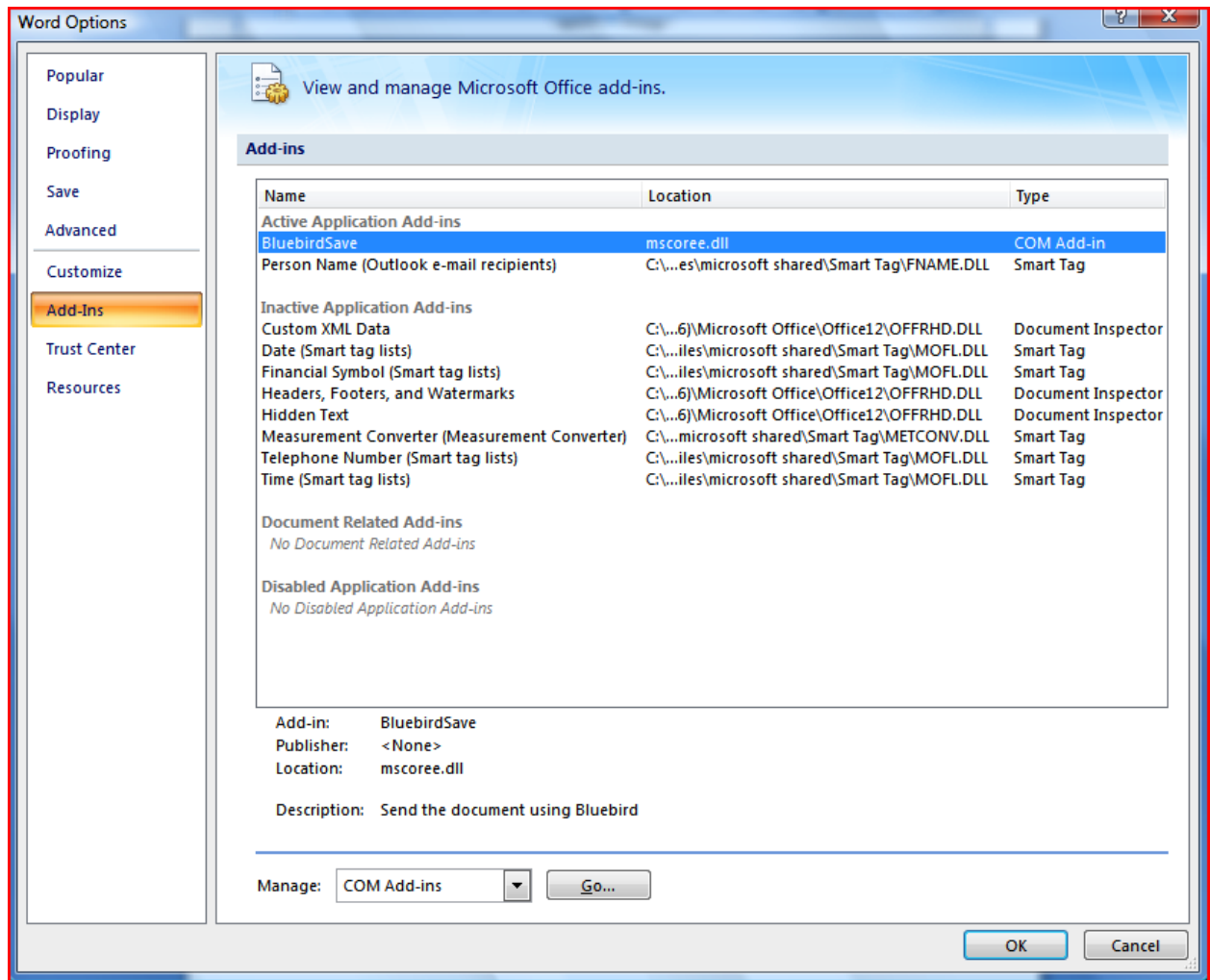
In the following window click the drop down list next to “Save as type” and select “Word Macro-Enabled Template”



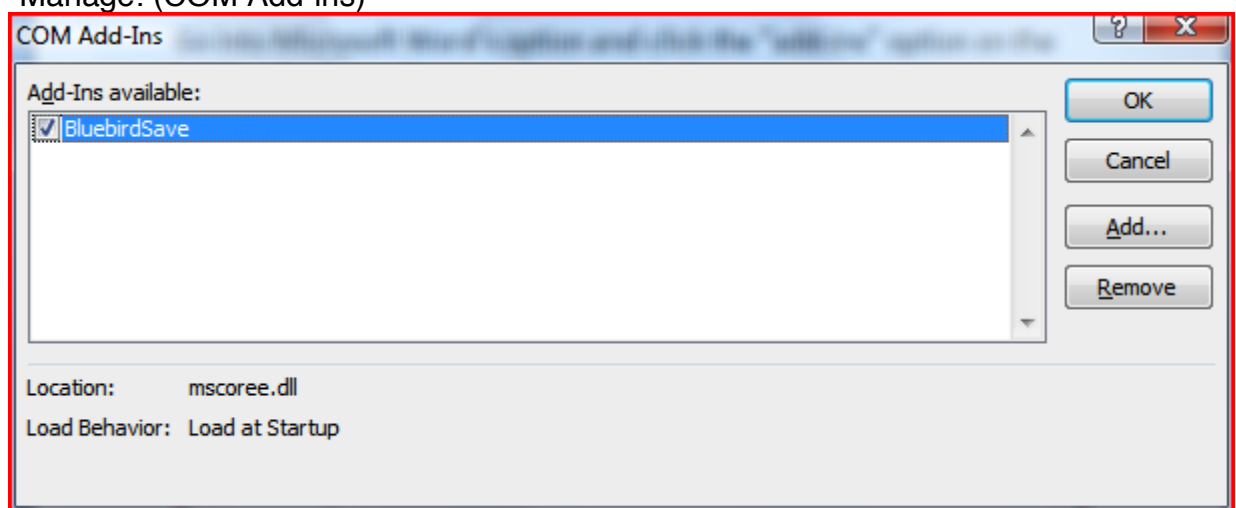
Enter the Bluebird name for the template. Click “Save”.
In future, open this template as previously described for the default templates.

Troubleshooting

If the “word send “ tab is not displayed on the ribbon menu:
Go into Microsoft Word’s option and click the “add-ins” option on the left hand side, as shown in the image on the following page.



Ensure that the “BluebirdSave” plug-in is displayed under “Active Application Add-ins”. If it is displayed under “Inactive Add-ins”, click the Go button next to “Manage: (COM Add-ins)”



Tick the “BluebirdSave” option and click OK.
Close and re-open Word and “Bluebird Send” should be in your ribbon menu.

Hospital

Intelligent Medical Solutions (Pty) Ltd, the company behind Bluebird, supplies a range of products for doctors in hospitals ranging from billing solutions to PACS systems. In the context of this manual, Bluebird's lab solution for hospital wards (particularly ICUs) is documented below.

It is incredibly easy to use.

Note: Ideally, this solution is installed on a wall-mounted touch-screen (so that doctors do not need to interact with a keyboard or mouse). This solution is designed for Windows, Apple Mac, iPods, iPhones and iPads.

The screen below shows a list of patients in a fantasy ICU.
The list is refreshed by tapping the **Refresh** button.

Patient List ICU			
Refresh			Inbox
Abdullah Andrew 11324699	27-05-1947 Age: 63	click here on discharge	▶
Bailer Ivan 11322912	04-10-1935 Age: 75	click here on discharge	▶
Canton Ferdinand 11324601	27-11-1934 Age: 76	click here on discharge	▶
Delore David 11321933	13-04-1991 Age: 19	click here on discharge	▶
Doe John 11348122	06-06-1962 Age: 48	click here on discharge	▶
Hail Rachel V 1111134	01-05-1967 Age: 43	click here on discharge	▶
Hussan Joan 11321332	18-04-1939 Age: 71	click here on discharge	▶
Jones Lloyd 11322624	28-11-1941 Age: 69	click here on discharge	▶
Lawton Richard 11348929	04-02-1952 Age: 59	click here on discharge	▶
McDonald Gareth D 11321921	27-12-1955 Age: 55	click here on discharge	▶
McQuire Paul 1132192	27-12-1955 Age: 55	click here on discharge	▶
Ress Thembeke 11321892	23-09-1953 Age: 57	click here on discharge	▶
Smuts Brendan 11322830	28-03-1990 Age: 21	click here on discharge	▶
Vine Colleen L 11322993	23-09-1938 Age: 72	click here on discharge	▶
Wales Sean 11322331	11-02-1966 Age: 45	click here on discharge	▶
Wellington Cyril 11323238	20-07-1932 Age: 78	click here on discharge	▶

Tapping any patient takes the doctor to a list of lab reports for that patient while in ICU.

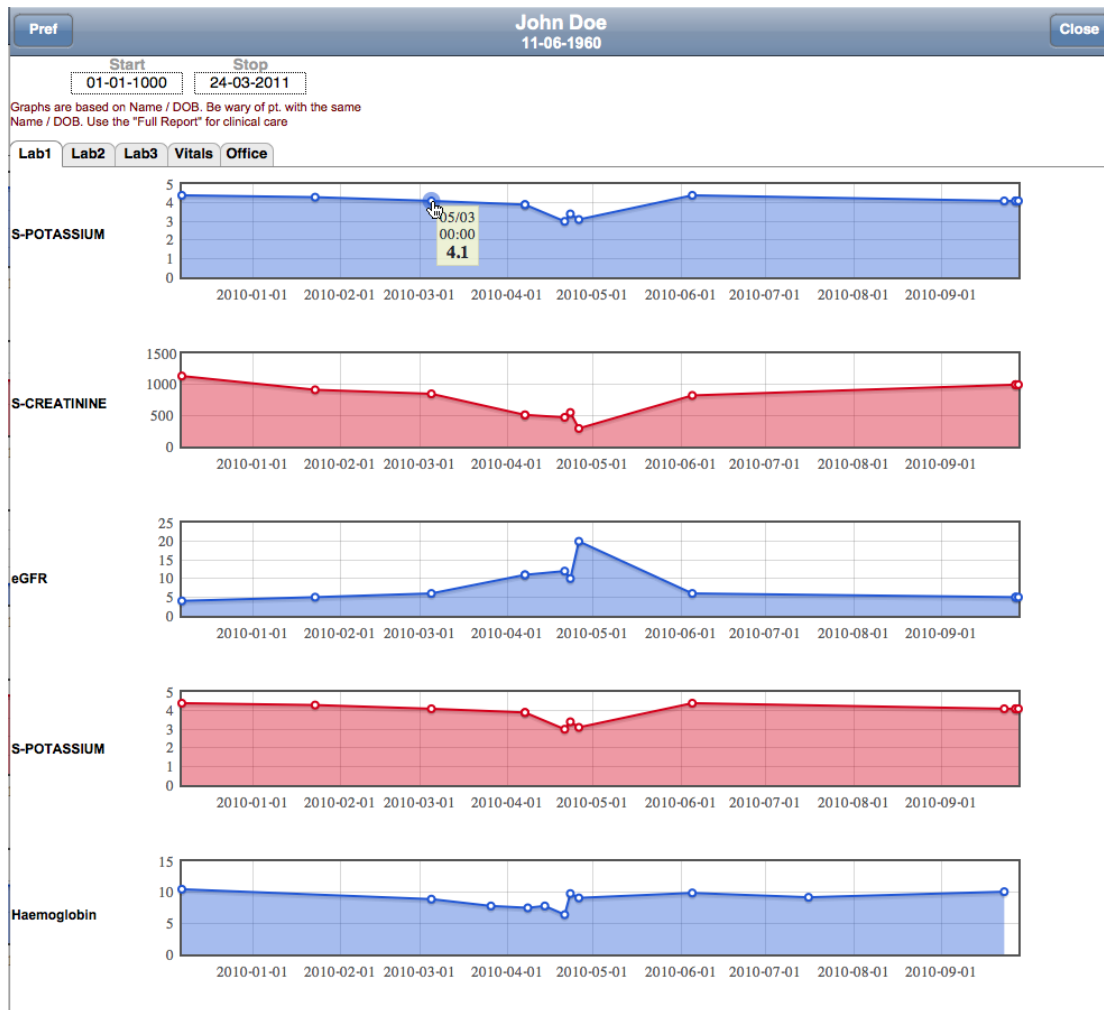
The screenshot shows the iBird Clinic interface. At the top, there is a 'Clinic' button, 'Find', and 'UnRead' buttons. A menu is open, listing various settings: Change Password (#1), PreUpdate (#2), SortInbox (#3), PluginVersion (#4), Preferences (#5), PD (#6), MD (#7), Values (#8), SMTP (#9), and Rma (#0). The main area displays a list of patients, each with a graph icon, name, date sent, and ID. The list is filtered by 'DOB' (Date of Birth) and shows 1 of 37 results. The patient list includes John Doe with various dates and IDs, and a 'DOB' column showing 11-06-1960 and a value of 50.

The **Clinic** button takes one back to a refreshed list of patients in that ward (see previous page).

Tapping the graph icon (grey block on left) brings up a graphic battery of tests as depicted in the image on the following page.

The 15 graphs (generated on the fly) can be customized for that wards requirements. For example, blood gases might be important for an ICU.

Tapping the result line produces a colour-coded view of results on that particular lab report (as shown in the bottom image on the following page).



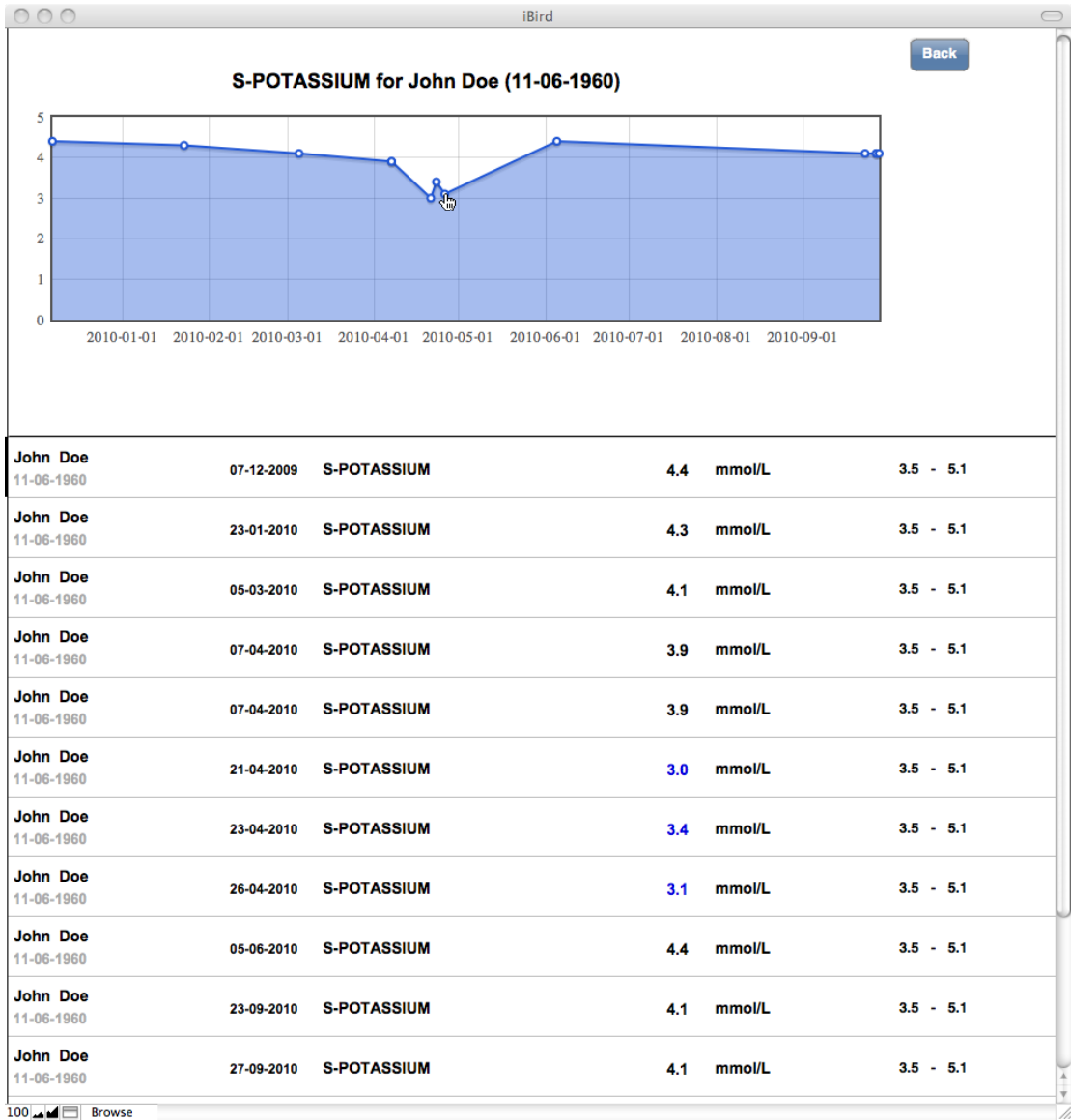
Note that:

- Touching an individual value brings up a tool tip indicating the date, time and result.
- If vitals are recorded on the system, graphs for those vitals are also constructed.

<div>< Prev</div>		<div>Full</div>		<div>Inbox</div>		<div>Find</div>		<div>Next ></div>	
Lancet 27-09-2010				John Doe 11-06-1960				1 of 37 43	
Test		%		Result		Unit			
S-POTASSIUM				4.1		mmol/L			
S-UREA, serum Pre-dialysis				26.4		mmol/L			
Urea Reduction Ratio				0		%			
S-CREATININE				997		umol/L			
eGFR				5		mL/min			
S-PHOSPHATE inorganic				0.77		mmol/L			
S-ALBUMIN				40		g/L			

Tapping the test name (potassium is highlighted above) brings up a cumulative table and graph for that particular test (for that patient) - see following page.

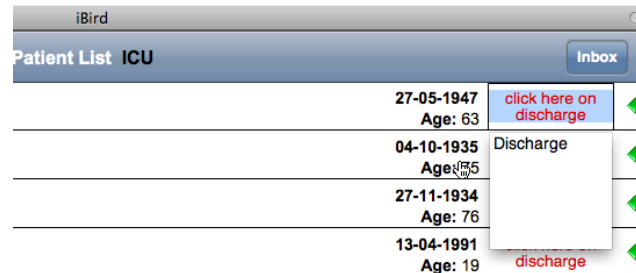




PTO

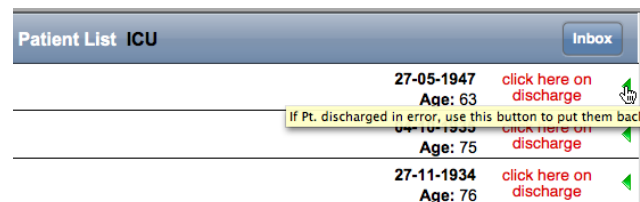


To remove patients from the Ward list, simply tap on the red field labeled [Click here on discharge](#). Choose either [Discharge](#), or, if set up, the wards for your hospital will be in the list (and if you then go to that ward, this patient will be seen in that wards list).



iBird		Inbox
Patient List ICU		
27-05-1947 Age: 63	click here on discharge	▶
04-10-1935 Age: 55	Discharge	▶
27-11-1934 Age: 76		▶
13-04-1991 Age: 19	discharge	▶

As described earlier in the manual, tool tips are available to explain how to use this solution (see below).



iBird		Inbox
Patient List ICU		
27-05-1947 Age: 63	click here on discharge	▶
If Pt. discharged in error, use this button to put them back		
04-10-1935 Age: 75	click here on discharge	▶
27-11-1934 Age: 76	click here on discharge	▶

The green arrow, when clicked, will again label a discharged patient as being back in the ward. It is useful if you have discharged a patient in error.

Note: If you have used the [Refresh](#) button and the patient is no longer on the list there is a hidden function to find all the patients discharged over the last 7 days – simply Tap on the words [Patient List](#) at the top of the page.

Recap

iBird is a free tool distributed by Intelligent Medical Solutions (Pty) Ltd to facilitate communication between medical doctors in South Africa.

We charge large medical organizations such as pathologists, radiologists and hospital groups a nominal amount to move their data, for example we charge the labs less than 1% of the average medical aid rate to send a report. As an organization we believe that:

- Keeping our charges so low makes our business sustainable (borne out over the last 15 years)
- By making available the means to create and move Referral and Consultation notes, at no cost, between South African practitioners we are doing a great deal of good towards the practice of ethical medicine and practicing ethically is, I still believe, the goal of most doctors.

I hope you enjoy your iBird,

Sincerely,

Darryl Vine

