Sending Winlink FORMS from the PAT Client

It's great to have PAT as a tool for Winlink on linux systems including the Raspberry Pi. However, it doesn't have all the features that you'll find on a Windows system with the Winlink Express client.

One thing in particular that's nicely built into Winlink Express is the ability to transmit integrated ICS forms. The form templates are built into Winlink Express and they can be filled in on-the-spot and integrated into your outgoing Winlink messages.

While PAT certainly doesn't have direct integration with ICS (or other) form templates, I did an experiment to confirm that you still could absolutely send a properly formatted ICS form from (in my case) a Raspberry Pi using PAT!

Note: if anything that follows is completely inaccurate, please take a moment & publicize the correct information to benefit anyone who might have an interest in this topic. Thank you.

Let's step back briefly and look at the end result of a message sent from Winlink Express with an attached ICS form. What you receive at the other end is a message with a particular subject, particular body layout, and a file attachment (a .XML file).

So, not to over simplify, but it seemed to me that we could replicate all those items using PAT - and it worked! Yes, I know that the steps that follow are not as turn-key or as flexible as what's available in Winlink Express. That's not the point. All I wanted to do was set myself up to be able to send an ICS form using PAT... period.
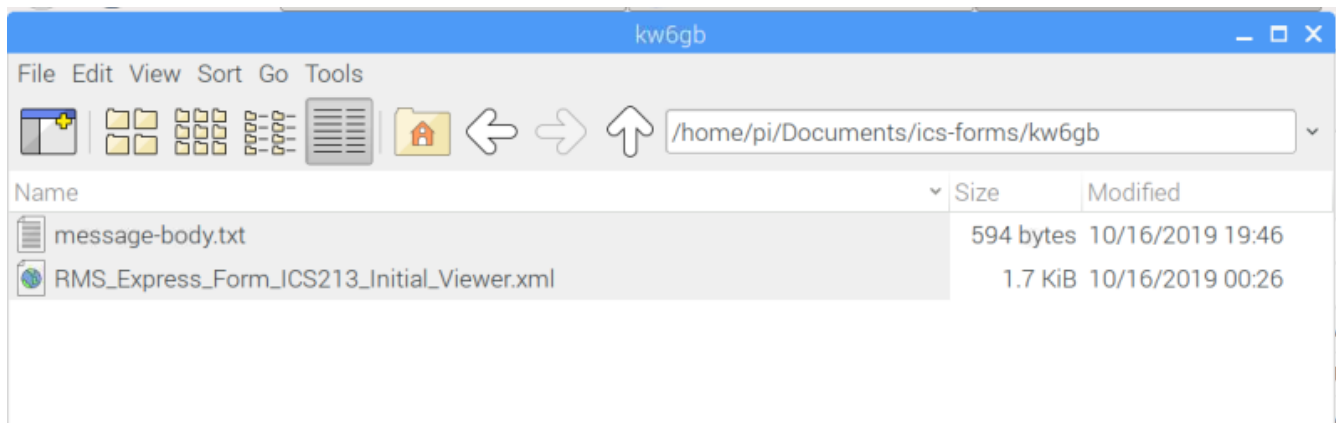
(Yes, a programmer could automate what follows here - I wasn't trying to build a "system", but rather just to show that it could be done)

As the old Steve Martin joke says, "How do you make a million dollars?" - "First step... get a million dollars". So we need a properly formatted Winlink message with an ICS form attached and the easiest way to do that was by sending myself one from Winlink Express.

Please note the body of the message that's received. I simply copied that into a .TXT file and stored it away to use as a template for my outgoing message from PAT. I also noted the exact format of the SUBJECT. Here's what that file looks like:

```
File  Edit  Search  Options  Help
 1|
 2 GENERAL MESSAGE (ICS 213)
 3
 4 1. Incident Name: Winlink Wednesday Check-In
 5 2. To (Name and Position): KW6GB, Net Control
 6 3. From (Name and Position): K4KDR, Participant
 7 4. Subject: Winlink Wednesday Check-In
 8 5. Date: 2019-10-16
 9 6. Time: 00:21
10 7. Message:
11
12 K4KDR, Scott, Montpelier, Hanover, VA (HF ARDOP)
13
14 8. Approved by: Scott,  K4KDR
15    Position/Title: Participant
16
17 Sender:  [K4KDR]
18
19
20 -----------------------------------------------
21
22 Subject:
23
24 //WL2K 213-Winlink Wednesday Check-In
25
26 -----------------------------------------------
27 -----------------------------------------------
```

Ditto the attached XML file. I saved it (keep the same file name!!) to a folder on my Pi to be used as a template. So here is the folder that I'll use for future messages to this recipient:

```
                              kw6gb                            _ □ ✕
File  Edit  View  Sort  Go  Tools

 [icons]       🏠 ⇐ ⇒ ⇧  /home/pi/Documents/ics-forms/kw6gb          ⌄

Name                                              ⌄ Size      Modified
📄 message-body.txt                                 594 bytes  10/16/2019 19:46
🌐 RMS_Express_Form_ICS213_Initial_Viewer.xml        1.7 KiB    10/16/2019 00:26
```

Now comes the part that is easier in Winlink Express. We need to edit both the body of our message (easy enough) as well as the .XML file (not as easy but still just plain text) to contain the info we want to send. What's in the message body should match EXACTLY with what's in the attached XML file, so make liberal use of copy/paste!

There's one special field in the XML file to pay attention to. In my test I was using the ICS-213 form, so the XML file being used was "RMS_Express_Form_ICS213_Initial_Viewer.xml". After saving it to a folder on the Pi, I RIGHT-clicked on the file and selected "Open With Text Editor". In addition to making whatever changes I want to match my message body, note the field marked "<msgseqnum>". I noticed that Winlink Express increments that number with each outgoing form, so we'll want to do the same here. If this is the file you used last, add -1- to the number and call it a deal. If you do a lot of this kind of thing with different forms, keep a list and put the next number in sequence on the form you're editing. Please be careful with your edits - this is not something that was ever intended to be edited manually.

So, while that seems like a lot of work, you can do it quicker than it took to read all the explanation I just typed on the subject. Go into PAT, COMPOSE a new message, paste in the SUBJECT & message BODY, then use the "ADD ATTACHMENT" button to select the XML file that you just edited to match your message body.

If you did everything right, a recipient using Winlink Express will have the ICS-213 (in this example) HTML form pop up when your message is received. Send a test to yourself & check it out!

I hope this proof-of-concept might be useful or interesting to someone. Now I know that if I prepare ahead of time and have templates of the forms I want to use already saved on the Pi, I can send the same type of message from PAT that I can with Winlink Express.

-Scott, K4KDR