Agenda

• Terminology
• Integrated Installer Contents
• Outpost Features
• PackItForms Features
• Version Numbers
• Reporting an Issues
Terminology

• Outpost Packet Message Manager
  • GUI-based interface for managing packet communications
  • Makes using packet as simple as using e-mail

• PacFORMS
  • HTML-based forms for use with Outpost
  • Since 2007, simplified forms-based data entry, reduced network bandwidth

• PackItForms
  • Next generation HTML-based forms for use with Outpost
  • Started in Los Altos; expanded to all county forms
Terminology (2)

• API – Application Programming Interface
  • A method for two programs to communicate with each other without either having to know the internal implementation details of the other
  • Makes it easier to connect to, integrate with additional applications

• Outpost “Add-On”
  • Program that extends Outpost to handle enhanced/specialized message types
  • Communicates with Outpost via the Outpost API
  • Examples: Outpost Alt-911, PackItForms
Terminology (3)

• SCCo Integrated Packet Installer
  • In the past: Outpost with SCCo settings, PacFORMS
  • This release: Outpost with SCCo settings, PackItForms, PacFORMS
  • Future: May incorporate additional “add-on” applications
Integrated Packet Installer Contents

• Latest Outpost
• PackItForms
  • All new forms processing engine
  • 9 next generation forms
  • New offline operating mode
• PacFORMS
  • Fix for double-quotes problem
Outpost:  JNOS MD5 Authentication for Telnet

• TNC uses AX.25 (packet) protocol
  • Only call sign is used to connect to BBS
  • All transmissions are in clear text; easily intercepted by someone listening

• If TCP/IP network is available, Outpost can use Telnet protocol
  • Same BBS commands as TNC/Radio, but network speed is usually faster
  • Telnet logins require passwords
    • login: w6xrl4
    • Password:

• Telnet uses clear text, including the password
  • Exposing passwords might give bad actor a clue about other passwords you use
  • Can be snooped locally, but county WiFi backbone uses encryption
Outpost: JNOS MD5 Authentication for Telnet (2)

• MD5 Authentication is now automatic in Outpost
  • No security for message data; but helps avoid snooping on passwords
  • Not encryption; does not “obscure meaning” [47 CFR § 97.113(a)(4)]
  • Server (JNOS) and client (Outpost) have a shared secret: user’s password
  • Server (JNOS) sends a “challenge” along with password prompt
    • login: w6xr14
    • Password [5cbe627b]:
  • Client (Outpost) calculates and sends response (not password) in clear text
  • Server (JNOS) determines if response is correct; if so, user is connected
  • A new challenge is calculated at each login
Outpost: Base64 Encode/Decode

• Initial encode/decode implementation
  • Action > Encode Base64

• Outpost will
  • Encode before sending to, decode after receiving from BBS
  • Displays sent or received message to user as plain text
  • Note: Approximately 33% increase in message size!

• Current Usage
  • Preserve non-printable and other characters that would not
    normally be useable in a packet system
  • Prevent unintended “newlines” inserted by BBS
  • Add-ons can request encoding/decoding via API

• Future:
  • Part of workflow to handle more complex message types
Outpost: Support for SCS Tracker DSP TNC

- SCS TNCs behave differently than TNCs that use the TAPR standard (Kantronics, Timewave, MFJ, ...)
  - They are also about 1.5x as expensive!
- Outpost can now support the SCS Tracker / DSP TNC
- Helps ensure Outpost is usable no matter what TNC is in use
Outpost: Improvements/Expansion of API

- Speed improvements (submit) and greatly expanded functionality
- New Edit before sending workflow:
  - Submit to Outpost > Re-open form > Edit > Re-Submit to Outpost > Send
Outpost: New Subject Line Format

• Implements new Subject Line format:
  • `<MsgNbr>_<H>_<Subject>`
  • where `<H>` is the handling order: I, P, R (Immediate, Priority, Routine)

• Red font and “!!” Urgent marker if Handling Order = Immediate
  • Previously, red emphasis was based on Severity field

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<td>-----</td>
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<tr>
<td>If</td>
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<tr>
<td>n6mef@...</td>
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</tbody>
</table>
Outpost: Force Bulletin Retrieve for Send Only

- Force one-time bulletin retrieve now works in Send Only mode
- Fantastic if you have a two-PC setup (one is Send Only, one is Receive Only)
- Now it’s easy to download notices/bulletins to the Send Only PC
Outpost: Profile Saving

• Profiles
  • Used to save a complete Outpost configuration
  • Existing: Prompt to save when changing Profiles or Exiting Outpost
  • New: Save right away (Setup > Profiles ... > Save)

• New: Warning when exiting or switching if Profile save = Never
Outpost: Open Enhanced Message Types

• Enhanced message types:
  • PacFORMS
  • New: PackItForms
• Forms open directly in browser window
  • No extra text window to close
• Override with:
  • Action > Open enhanced msg ...
PackItForms

• Next generation of forms for packet radio transmission
  • Keith Amidon, KJ6PUO
  • Peter Amidon, KJ6PUN
  • John Kristian, W6JMK

• Consistent with
  • Agency forms + Radio Routing Slip
  • New PDF forms

• Includes same routing fields
  • Same position
  • Same required fields
Outpost Forms Menu

- For backward compatibility both PackItForms and PacFORMS are included.
- Shown: Installer with Hospital and RACES Mutual Aid forms.
- PackItForms (highlighted here in red).
- PacFORMS (highlighted here in purple).
- Public installer does not contain (shown shaded):
  - Medical/Healthcare forms
  - RACES Mutual Aid forms
Required Field Indication

• Required fields are shown with red highlighting
  • Disappears when valid data is entered into each field
  • Easy to tell what fields need to be filled in

• As long as at least one required field is not filled:
  • Submit buttons are disabled
  • Button bar at top is grey
Reset Form Button

- Resets form to default values
- Use to “start over” without losing message number and other default values, such as date
Show PDF

• Opens another browser tab
• Displays PDF version of form
  • Can be opened and printed
Ready to Submit Indication

• Button bar at top turns green when all required fields contain valid data
• Submit buttons enabled
  • Submit to Outpost
  • Submit via Email
Show/Hide Data Message

- **Show Data Message**
  - Changes to “Hide Data Message” when pressed
  - Displays the text message that will be submitted to Outpost or E-mail
  - Could also be used to copy to some other application

- **Hide Data Message**
  - Removes the overlay text window
Submit to Outpost

• Sends form data to Outpost
• Purple confirmation banner
  • Message successfully submitted
• Outpost displays text message window
• Ready for To: address
Submit via E-mail

- Purple confirmation banner
  - Includes warning to delete message from Outpost to avoid sending a duplicate

- Launches default e-mail app as defined in MS Windows

- Subject and body are filled in

- Be sure to set Plain Text mode!
Updating a Previously Submitted Form

• Outpost & PackItForms supports reopening, editing, and resubmitting updating a previously submitted form
Action > Open Enhanced Msg ...

• Outpost automatically detects and opens “Enhanced” (PackItForms, PacFORMS) messages in their appropriate client

• Manually control from Main Outpost Window or Individual Message Window
Update vs. Complete Report

- Some forms have a “Report Type” option
  - Municipal Status, Shelter Status, Medical Facility Status, Allied Health Status
Update vs. Complete Report (2)

- These forms are very long, with many fields, some of which may contain text that lasts for months.
Update vs. Complete Report (3)

• Message Author:
  • Unable to update WebEOC directly (Internet outage at your site)
  • Will send update via packet radio
  • But can’t see the WebEOC screen, so doesn’t know what’s already been entered into the dozens of fields on the form

• Q1: If a blank field is sent, what should the message recipient do?
  • Skip that field? (leave any information that may be in that field alone)
  • Set that field to blank? (delete any information that may currently be in that field)

• Q2: If the message author wants to clear a field, or append to a field, how does he/she convey that to the message recipient?
Update vs. Complete Report (4)

- Use “Show PDF” button
- View the Instructions on the last page

<table>
<thead>
<tr>
<th>Report Type</th>
<th>Required</th>
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<tr>
<td></td>
<td><strong>Update</strong>: Normal mode. Recipient should only replace fields in WebEOC that are entered here. Other fields should retain their current values. To tell the recipient to clear a text field in WebEOC, write “{CLEAR}” in the field. To append to existing data in a WebEOC text field, write “{APPEND}”, followed by the text to be appended.</td>
</tr>
<tr>
<td></td>
<td><strong>Complete</strong>: <em>Use with caution.</em> An empty field here tells the recipient to clear the field in WebEOC. Use this to replace all fields in WebEOC with the data provided here, or to report on current status of all WebEOC fields.</td>
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- “Complete” report can be used to send info about current state of all fields to the person that would usually submit info
Standalone Mode

• Create or read PackItForms without Outpost

• Scenario
  • Need to send forms via packet
  • You don’t have your packet computer (or don’t want to leave it)
  • A PC is available. But you don’t have Windows admin rights

• Solution
  • Run PackItForms installer (no admin rights)
  • Run `C:\PackItForms\Outpost\SCCo\browse.cmd`
Version Numbers

• Outpost
  • Help > About Outpost
  • Version #.#.# c##

• PackItForms (new)
  • “PIF: #.#” version at top/right of form

• PacFORMS (legacy)
  • “PR-#.#-#.#” at bottom/right of form
Reporting an Issue

• Follow instructions found here:

• It’s best to ZIP all of the requested info into a single file
Thank You!