

Getting Started with Outpost

A presentation for the

**Alameda County
Sheriff's Communications Team**

7 January 2009

Jim Oberhofer KN6PE



Topics

1. Introduction to Outpost

- What is Packet Radio?
- Overview
- A Closer Look

2. Getting Started

- Finding Outpost
- Hardware configuration
- Confirm your BBS
- Outpost configuration
- First Message

3. Summary



What is Packet Radio?

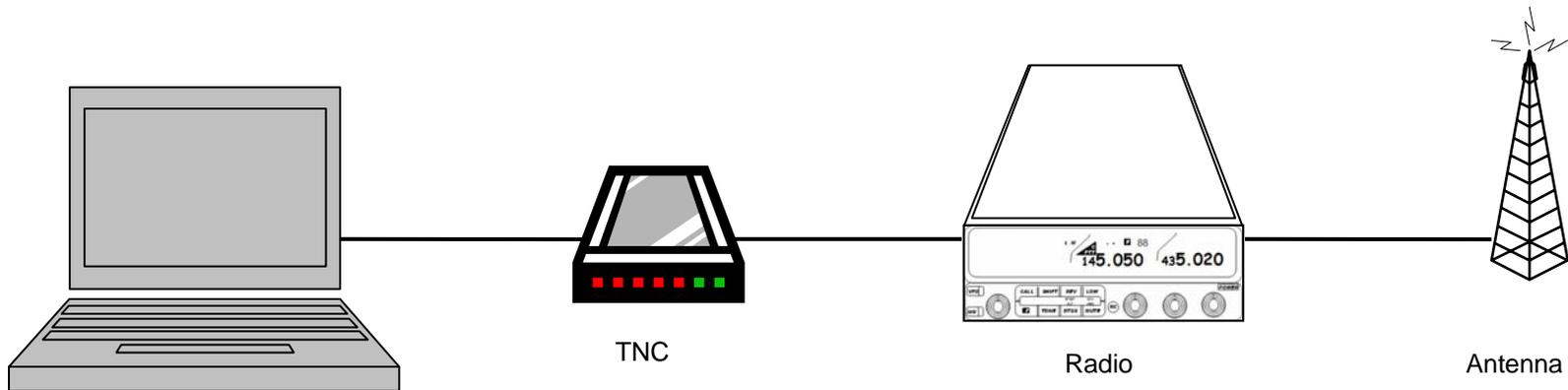
... in a nutshell

- Amateur Packet Radio is one of many digital modes that Hams can use to build wireless computer networks
- Amateur Packet is built on the AX.25 protocol, a mature extension of the industry standard X.25. This protocol comes with transparency, error correction, and automatic control
- Data transfer speeds range from 1200 baud up to 19.6K Baud (frequency dependent; higher speeds = wider bandwidth)
- AX.25 Packet establishes a “private connection” between two stations while sharing a frequency with other stations
- Packet can use Bulletin Board Systems (BBSs) for dropping off and retrieve messages between users



What is Packet Radio?

What are the components?



- **Computer:** runs a “terminal emulation” program
- **TNC:** Terminal Node Controller; similar to a telephone modem; the interface between your radio and your computer; Sound-card TNCs also exist.
- **Radio:** ...and antenna; transmits the digital data sent to the TNC to another packet station

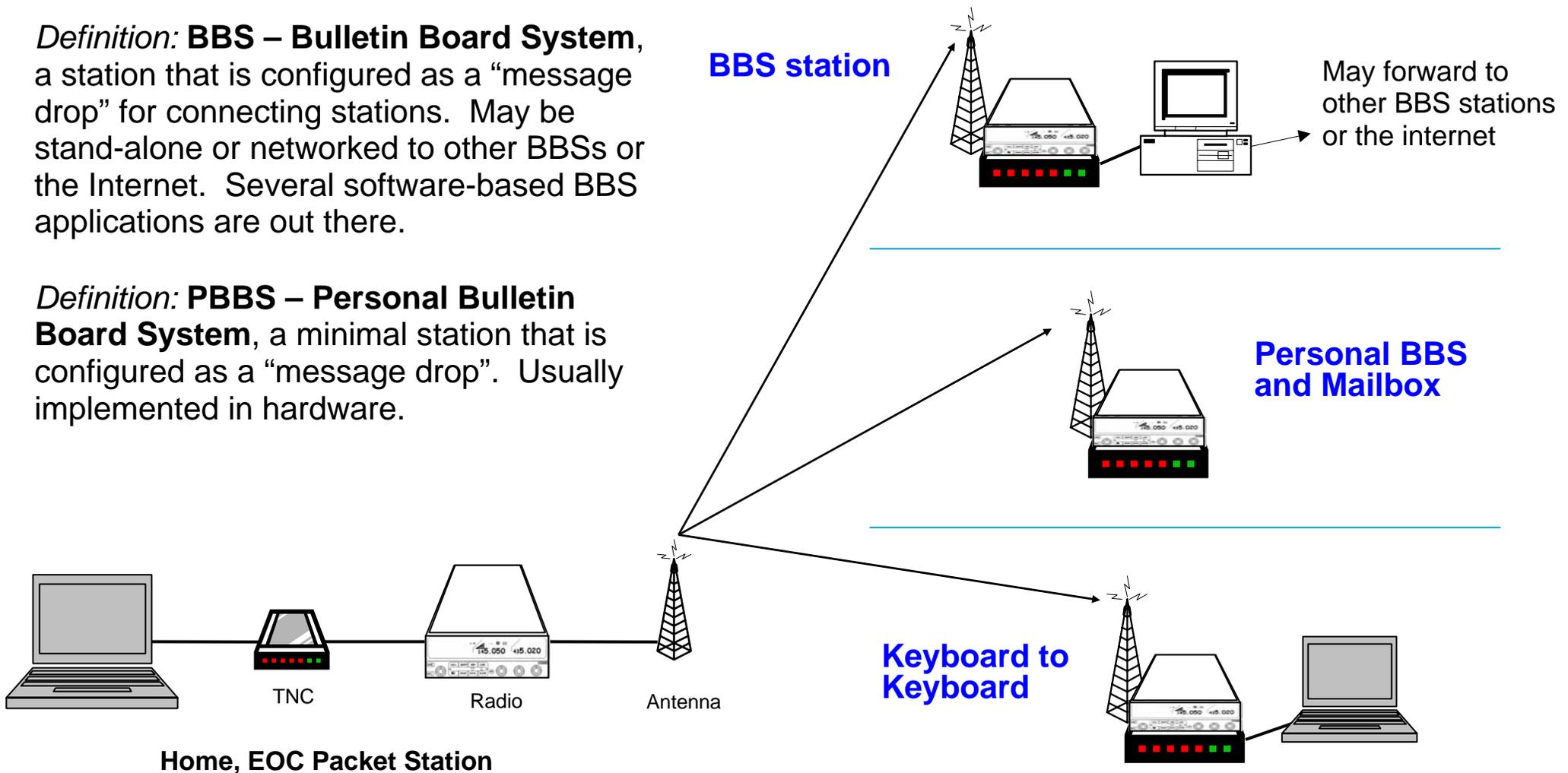


What is Packet Radio?

What can we connect to?

Definition: BBS – Bulletin Board System, a station that is configured as a “message drop” for connecting stations. May be stand-alone or networked to other BBSs or the Internet. Several software-based BBS applications are out there.

Definition: PBBS – Personal Bulletin Board System, a minimal station that is configured as a “message drop”. Usually implemented in hardware.



Overview

Outpost Packet Message Manager

What is Outpost?

- A Windows-based packet messaging client
- Supports ARES, RACES, and other amateur radio emergency response teams and their need to pass digital traffic
- Helps automate the packet message handling environment
- Manages all message-handling between you and your BBS
- Lets you read, delete, create, reply to, or forward messages back to the BBS

Main purpose...

- Enables ARES / RACES teams to support the **response efforts** and **requirements** of our local served agencies by pass digital traffic



Overview

Outpost Packet Message Manager

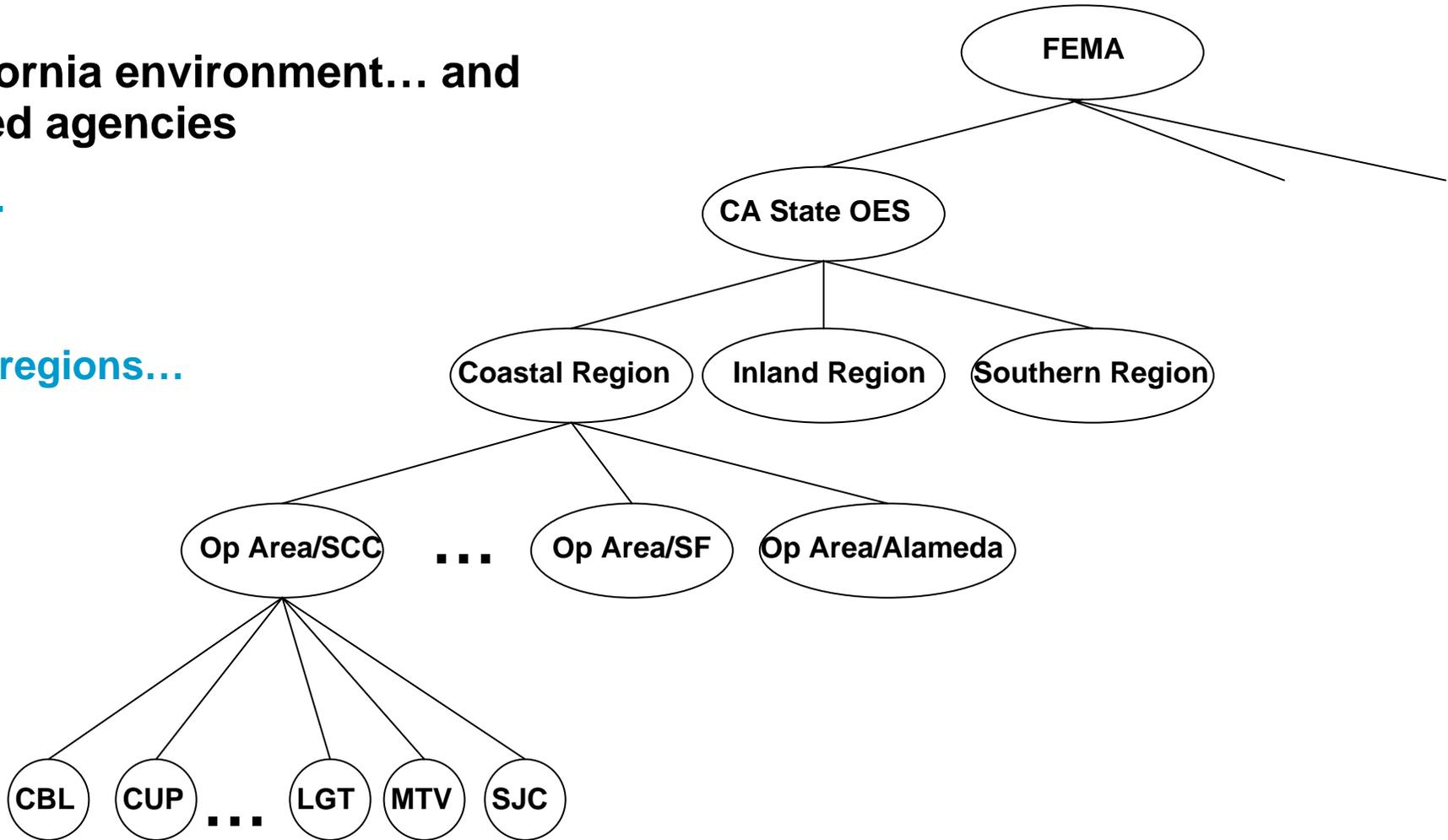
The California environment... and our served agencies

State OES...

Three state regions...

Counties...

Local Level towns and cities



Overview

Outpost Packet Message Manager

Why use Outpost?

- **Leverages the existing packet hardware, network, & BBS infrastructure**
 - Compatible with many existing BBSs and TNC PBBSs
 - Uses your existing TNC and packet radio equipment
 - Only a packet client (end-user) change is required
- **Hides the complexity of the packet operating environment**
 - Similar look and feel to contemporary email programs
 - Shorter learning curve for packet operations
 - Allows users to... *“focus on the message, not the medium”*
- **Implements most local emergency management policies for digital communications**
- **Still under active development based on user requests and on-going alignment with the Outpost mission**



Overview

Outpost Packet Message Manager

General Outpost Features

- **Managing Messages**

- Supports the three primary message types: Private, NTS, and Bulletins
- Text Formatting in a free-form message window
- NTS Message Maker with automated ARL message support
- On-line report builder using report templates
- Supports Urgent message, Delivery and Read Receipts

- **Send/Receive Sessions**

- Supports Serial, AGWPE, and Telnet interfacing with over 20 of PBBS and BBSs
- Automatically controls the sequence for initializing the selected interface, connecting to, and sending messages to and retrieving messages from the BBS

- **Configurations and Setups**

- BBS, TNC, and Interfaces – manages a list of BBSs & Interfaces
- Message Retrieval – choose the message types to be retrieved
- Send/Receive automation – 3 ways for automatically initiating S/R sessions

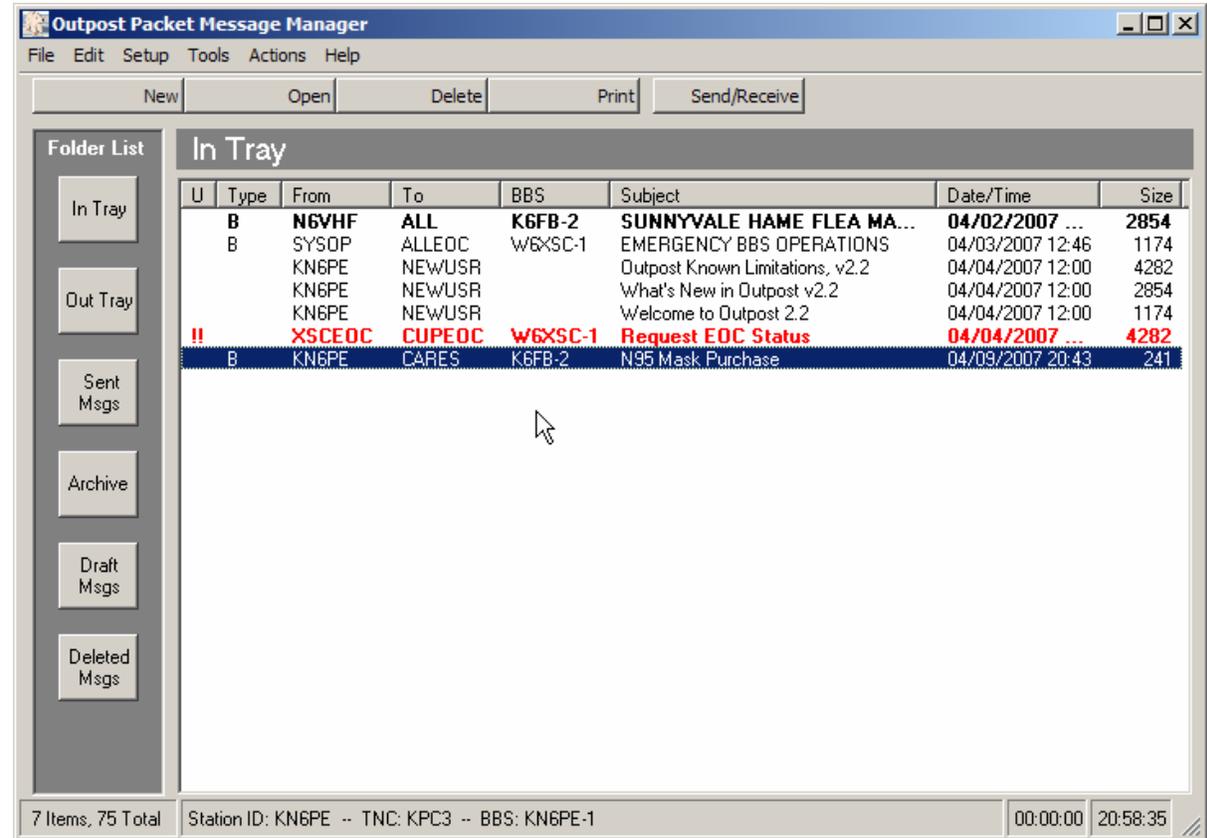


A closer look

Outpost Packet Message Manager

Managing Messages

- Familiar email-app look and feel
- Separate folders for message storage
- Clear message identification (unread=**BOLD**, urgent=**Red**)
- Follows a typical message workflow
- Manages BBS and interfaces
- Various settings to control how Outpost behaves



The screenshot shows the Outpost Packet Message Manager application window. The title bar reads "Outpost Packet Message Manager". The menu bar includes "File", "Edit", "Setup", "Tools", "Actions", and "Help". Below the menu bar are buttons for "New", "Open", "Delete", "Print", and "Send/Receive".

On the left is a "Folder List" with buttons for "In Tray", "Out Tray", "Sent Msgs", "Archive", "Draft Msgs", and "Deleted Msgs". The "In Tray" folder is selected, and its contents are displayed in a table:

U	Type	From	To	BBS	Subject	Date/Time	Size
B		NGVHF	ALL	K6FB-2	SUNNYVALE HAME FLEA MA...	04/02/2007 ...	2854
B		SYSOP	ALLEOC	W6XSC-1	EMERGENCY BBS OPERATIONS	04/03/2007 12:46	1174
		KN6PE	NEWUSR		Outpost Known Limitations, v2.2	04/04/2007 12:00	4282
		KN6PE	NEWUSR		What's New in Outpost v2.2	04/04/2007 12:00	2854
		KN6PE	NEWUSR		Welcome to Outpost 2.2	04/04/2007 12:00	1174
!!		XSCFOC	CUPEOC	W6XSC-1	Request EOC Status	04/04/2007 ...	4282
B		KN6PE	CARES	K6FB-2	N95 Mask Purchase	04/09/2007 20:43	241

At the bottom of the window, the status bar shows "7 Items, 75 Total", "Station ID: KN6PE -- TNC: KPC3 -- BBS: KN6PE-1", and a timer showing "00:00:00" and "20:58:35".

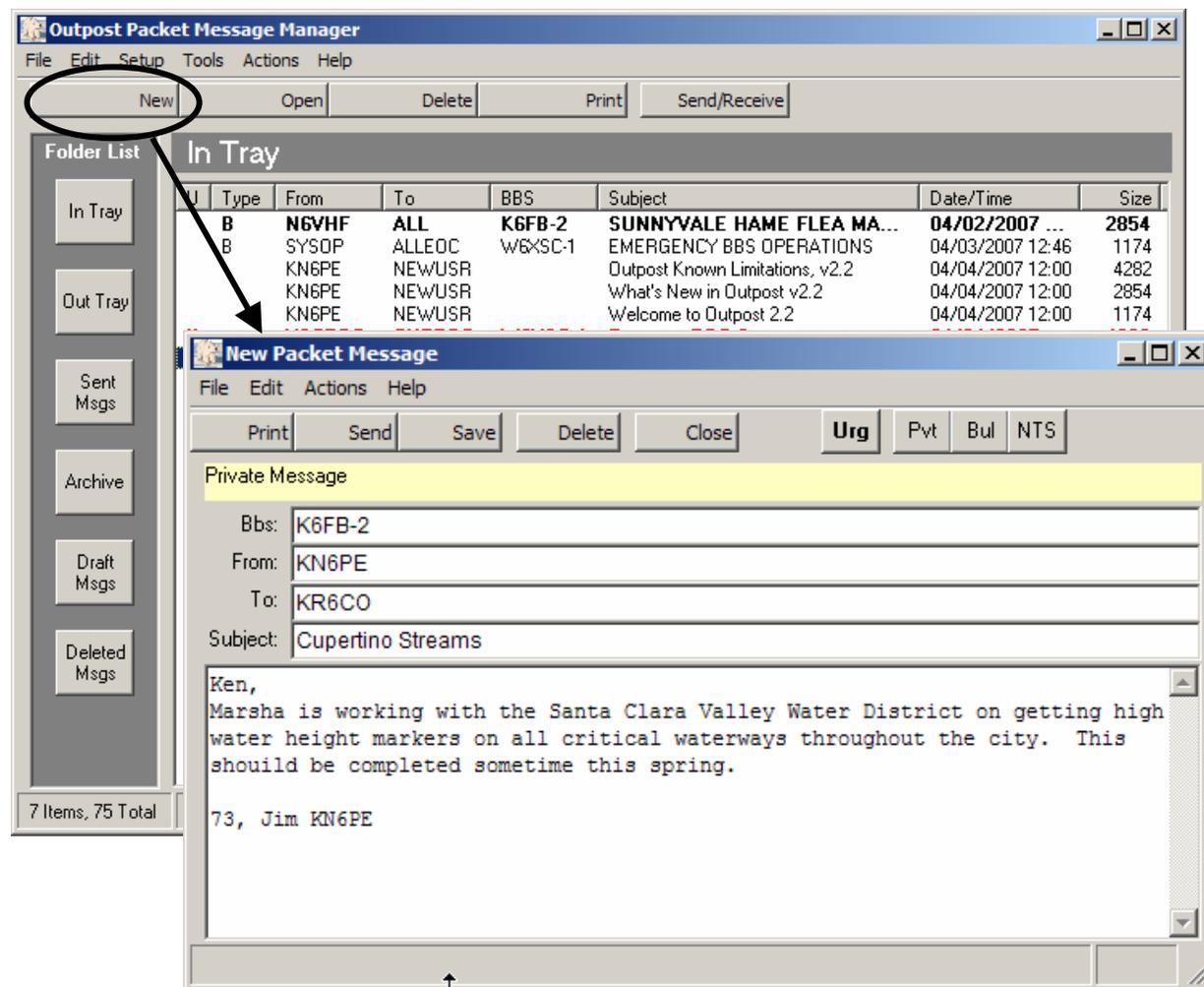


A closer look

Outpost Packet Message Manager

Creating Messages

- Familiar email-app look & feel
- Supports Private, Bulletin, and NTS message types
- Freeform message formatting before sending
- Set messages to **Urgent**
- Delivery and read receipts
- Different ways for originating messages
 - NTS Message Maker
 - Online Reports

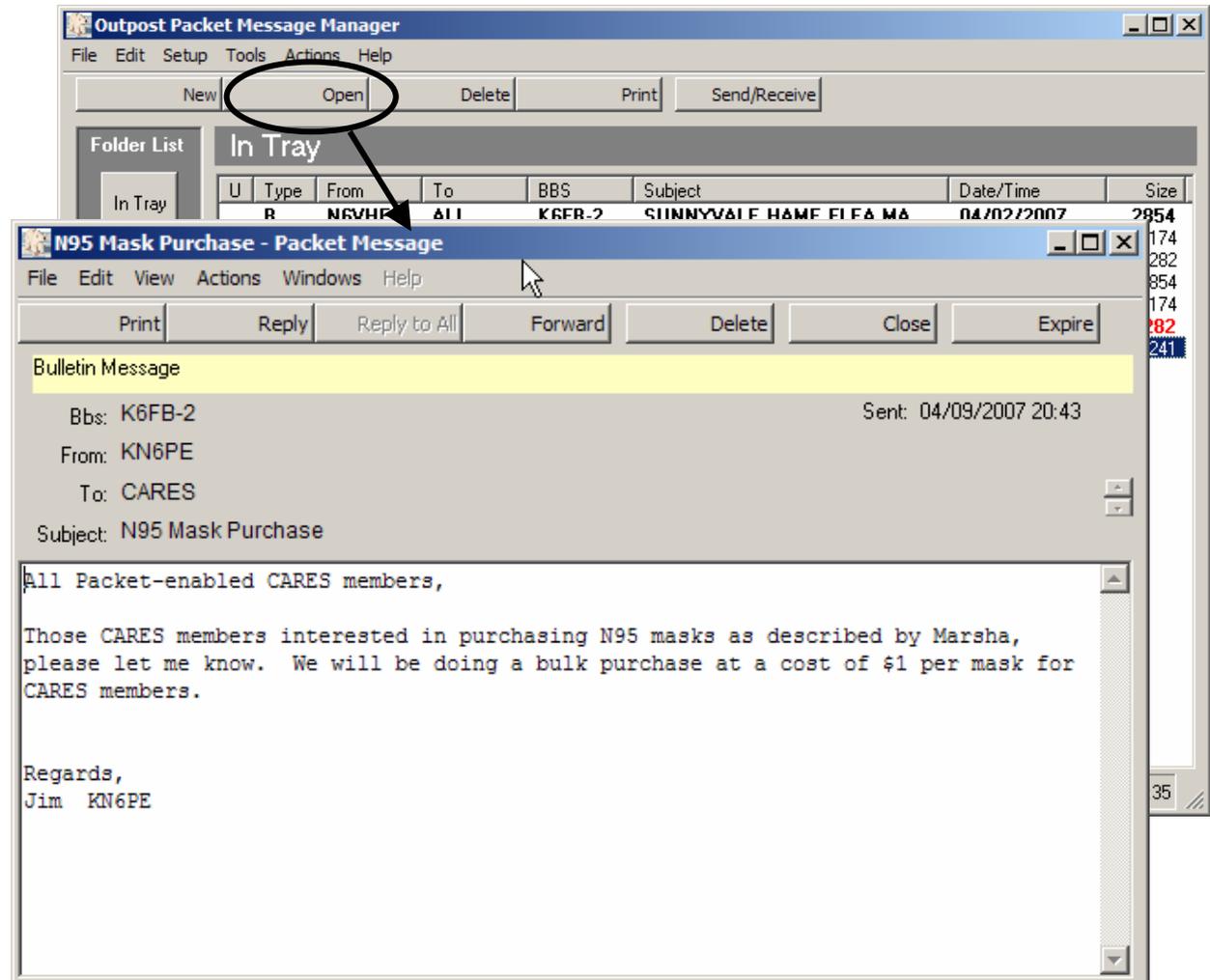


A closer look

Outpost Packet Message Manager

Viewing Messages

- Supports viewing, printing, deleting or saving a message to a local file
- Reply and Forward message formatting

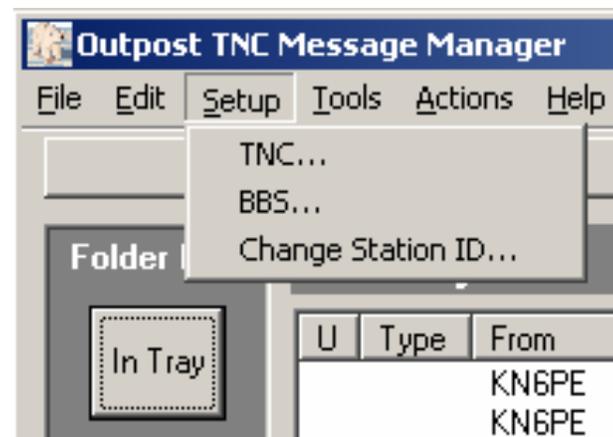


A closer look

Outpost Packet Message Manager

Application setups

- TNCs: create, update, or delete
 - Configure Serial Comm Ports that are associated with each TNC
- BBSs: create, update, or delete
- Change the Station Identifier (the call sign assigned to the TNC)

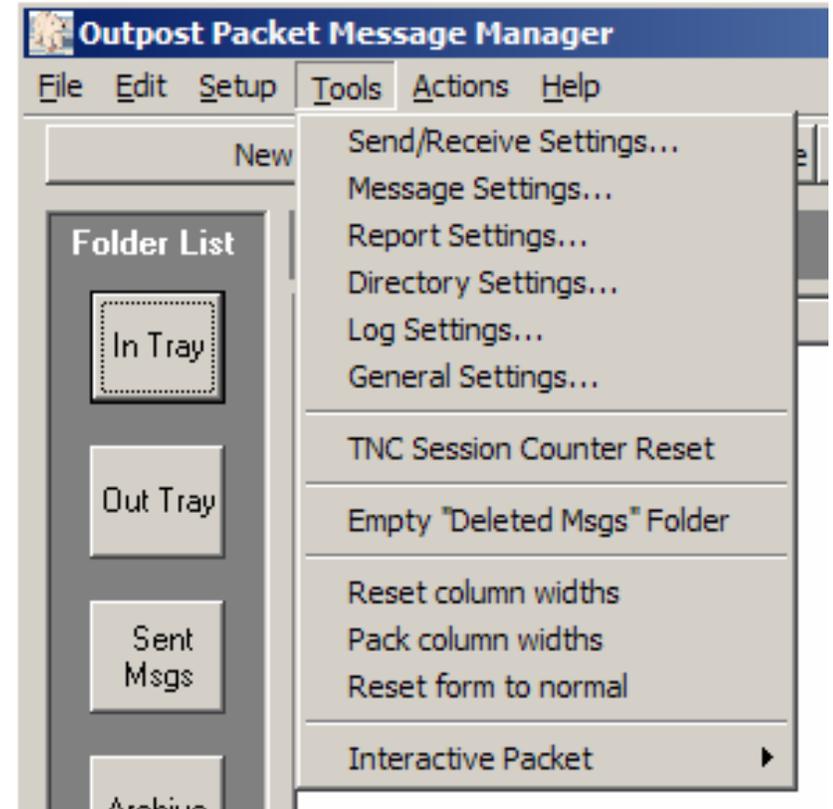


A closer look

Outpost Packet Message Manager

Types of controls

- Controls the flow of each Send/Receive Session
- Sets how messages are created and handled
- Set various data fields to automatically populate on-line reports, messages, other areas
- Set up default Directory Names
- Various Log Settings
- Controls to re-size message listing column widths
- Separate Packet programs for Serial, AGWPE, and Telnet where the user can manually interact with the TNC or BBS



A closer look

Outpost Packet Message Manager

Aligning features to needs

Mission: How do we support our served agencies in their efforts to minimize loss of life and property, and speed the recovery?

Environment: Environments are different... how do we adapt our tools to our environment?

Policy: In a community of packet users, what policies do we adopt to ensure order, consistency, and efficiency in what we do?



A closer look

Outpost Packet Message Manager

Helps implement packet operating policies...

1. All stations will identify with a tactical call sign
2. All messages are sent as private messages
3. All messages are uniquely identified
4. All messages are as short as possible
5. All stations will poll the BBS periodically for traffic
6. All stations will poll for specific message types
7. All message traffic becomes part of the official event documentation package



Getting Started

Outpost Packet Message Manager

- 1. Finding Outpost**
- 2. Hardware configuration**
- 3. Confirm your PPB or PBBS**
- 4. Outpost configuration**
- 5. First message**



1. Finding Outpost

Outpost Packet Message Manager

1. Where to find it...

<http://www.outpostpm.org/>

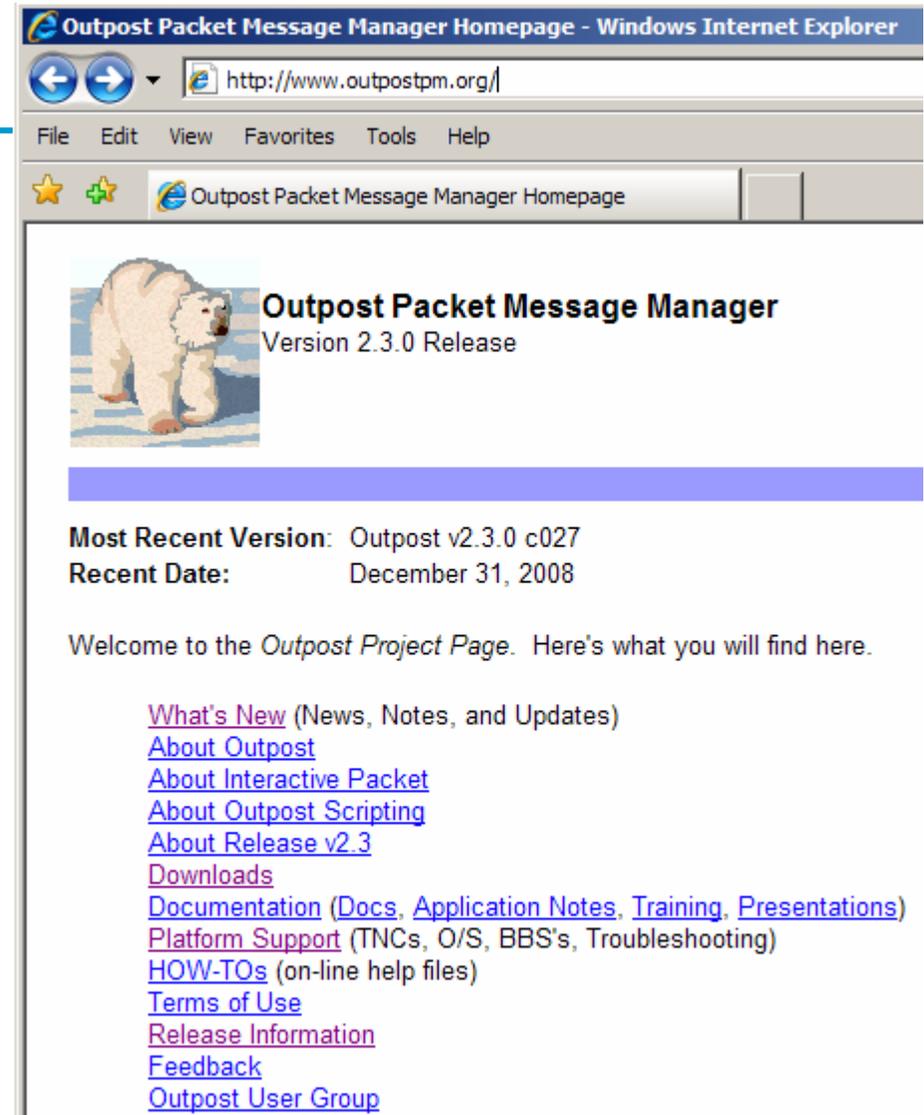
2. Download the latest version into a temp directory

3. Run the install program

4. Choose the install type

- Update for existing users
- First time installation for new users
- Custom installation

5. Outpost is installed in c:\Program Files\Outpost



The screenshot shows a Windows Internet Explorer browser window displaying the homepage for Outpost Packet Message Manager. The address bar shows the URL <http://www.outpostpm.org/>. The page features a header with the product name and version (2.3.0 Release) next to a polar bear logo. Below the header, it lists the most recent version (v2.3.0 c027) and the recent date (December 31, 2008). A welcome message follows, and a list of links is provided for users to explore the site's content, including news, documentation, and support resources.

Outpost Packet Message Manager
Version 2.3.0 Release

Most Recent Version: Outpost v2.3.0 c027
Recent Date: December 31, 2008

Welcome to the *Outpost Project Page*. Here's what you will find here.

- [What's New](#) (News, Notes, and Updates)
- [About Outpost](#)
- [About Interactive Packet](#)
- [About Outpost Scripting](#)
- [About Release v2.3](#)
- [Downloads](#)
- [Documentation](#) ([Docs](#), [Application Notes](#), [Training](#), [Presentations](#))
- [Platform Support](#) (TNCs, O/S, BBS's, Troubleshooting)
- [HOW-TOs](#) (on-line help files)
- [Terms of Use](#)
- [Release Information](#)
- [Feedback](#)
- [Outpost User Group](#)

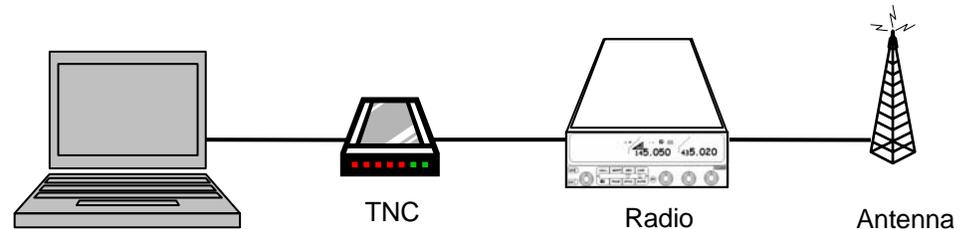


2. Hardware configuration

Outpost Packet Message Manager

What you should have

1. PC – Windows'98 or greater
2. TNC – 1200 baud is the most common speed TNC
 - Several “TAPR2” TNCs mfgs are supported: AEA/TimeWave, Kantronics, MFJ, Kenwood built-ins (see <http://www.outpostpm.org/support.html>)
 - Or... AGWPE Software: sound-card packet, KISS-only TNCs



What you need to know

1. Interface Type: [TNC serial | AGWPE | telnet]
2. PC's Serial Comm Port number: _____
3. Serial Baud, data bits, parity, stop bits: (usually 9600,8,none,1)
4. When in doubt, consult your TNC manual



2. Hardware configuration

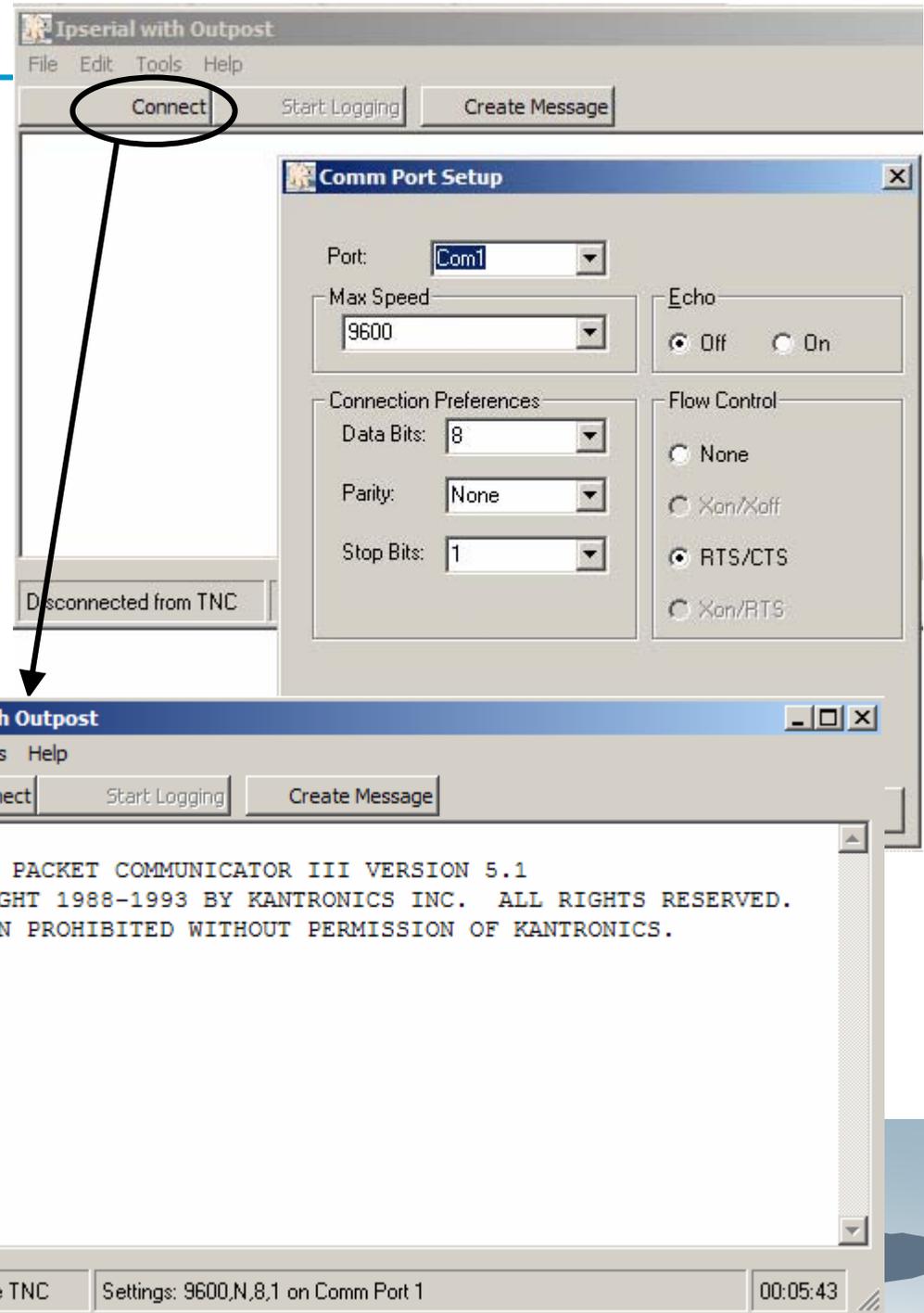
Outpost Packet Message Manager

1. Manually configure and conform your TNC connection

- Use the Ipserial.exe program (in the c:\Program files\Outpost directory)
- File > Comm Port Settings
- Enter your TNC settings... OK
- Power up your TNC
- Press Connect... confirm the TNC is present!

2. Add Comm Port Settings to Outpost

- Tools > “Add Comm Port settings to Outpost”... give the TNC a name, Press OK
- Congratulations! Your TNC is configured
- If you did not get this far, **STOP! Do not Proceed!**



3. Confirm your BBS/PBBS

Outpost Packet Message Manager

1. Type of your BBS/PBBS
2. What is the connect name? _____ (ie: K6FB-2)
3. What is the BBS frequency? _____ (ie: 145.050)
4. Set the radio frequency, and manually connect to the BBS/PBBS

5. For Software BBSs...

- Register if prompted
- Set yourself up as Expert
- Turn off Paging
- See the Outpost website/BBS Support pages for help

6. You are ready for Outpost!

PBBSs (Firmware-based, resides in TNCs)	BBSs (Software-based)	Support pending (October 2008)
KPC3, KPC3+ KPC9612 KAM, KAM-XL, KAM-98 KAM Plus Kantronics' Data Engine PK-88, PK-232, PK-88 DSP-232 MFJ-1270x MFJ-1278	AA4RE F6FBB MSYS N0ARY DXNET RMS/Winlink W0RLI JNOS TNOS SNOS	KPC3 5.1 MFJ-1274 OpenBCM



4. Outpost Configuration

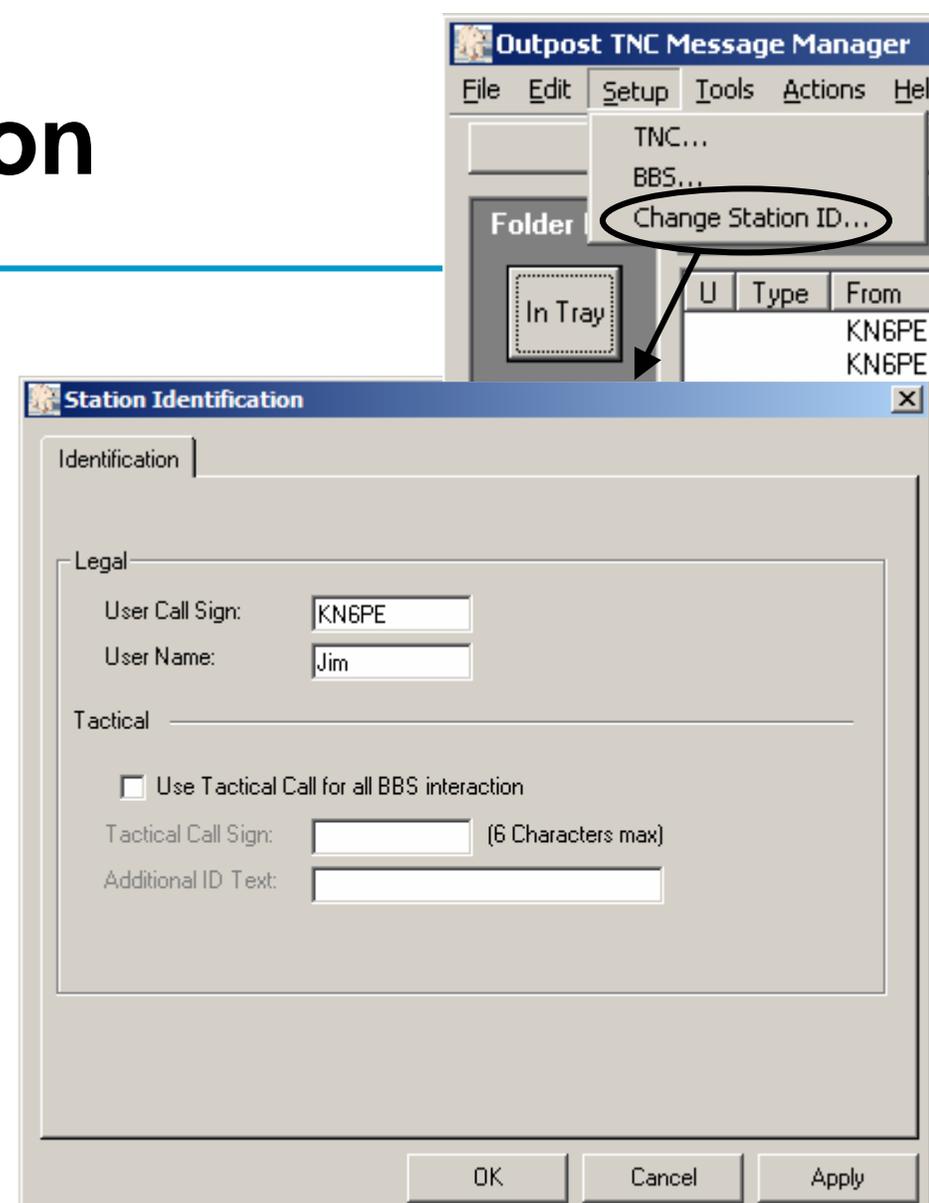
Outpost Packet Message Manager

1. Run Outpost

- from the Icon on the desktop, or
- Start > Programs > Outpost > Outpost PMM

2. The Station Identification form is presented

- Enter your call sign and name... press OK
- Turn off this prompting at Outpost startup from Tools > General Settings tab



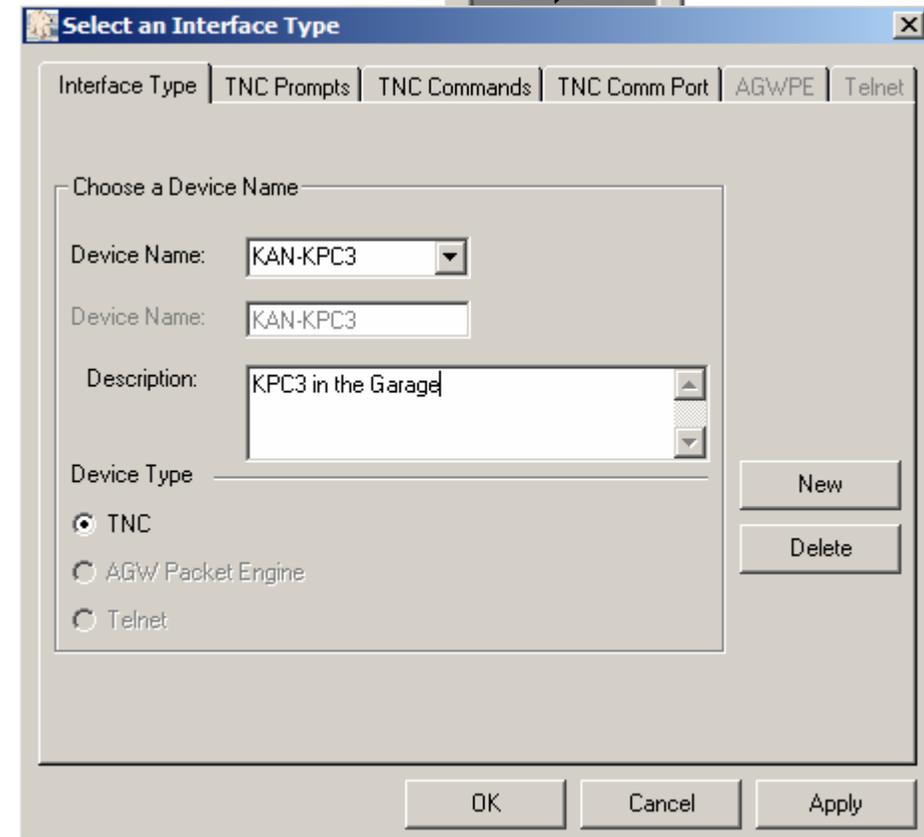
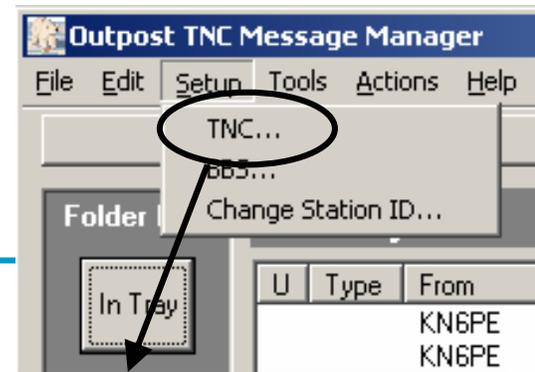
4. Outpost Configuration

Outpost Packet Message Manager

3. Confirm the TNC configuration...

4. From Outpost: Setups > TNC

- TNC Prompts and TNC command default settings should be valid.
- TNC Comm Port reflects your setup from Ipserial.exe.
- Press OK



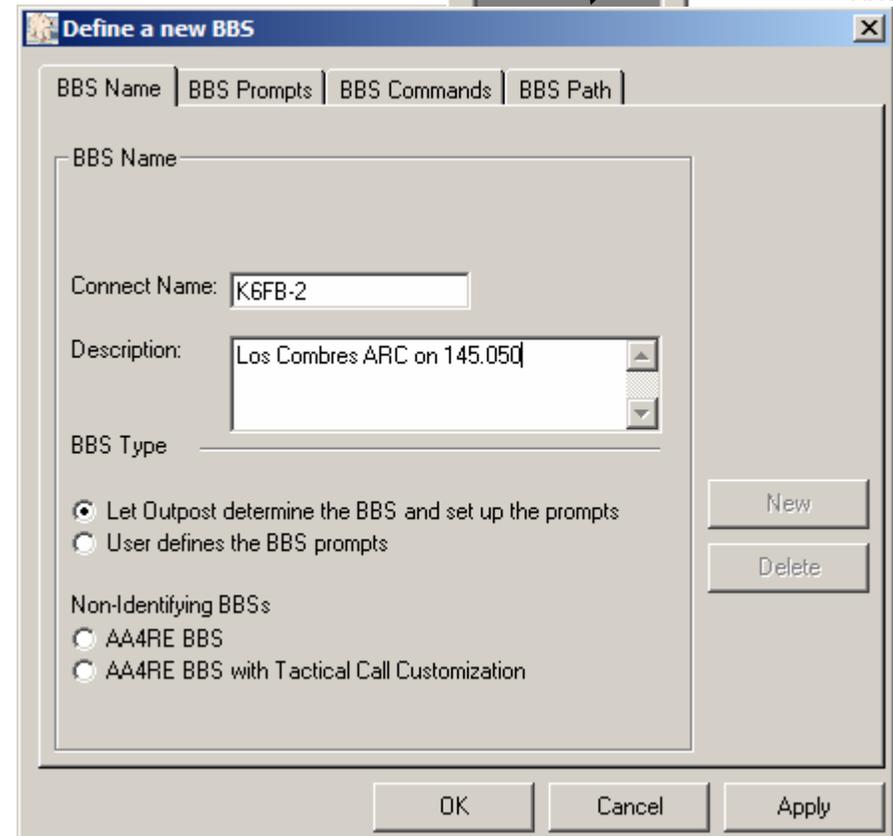
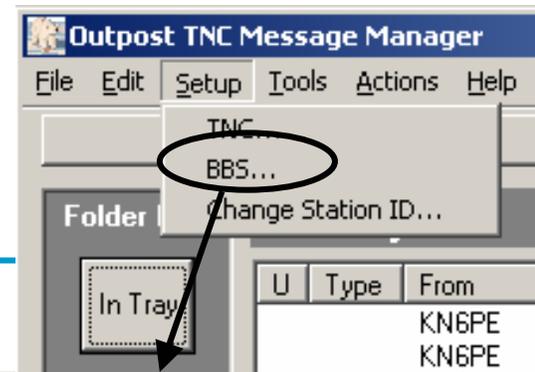
4. Outpost Configuration

Outpost Packet Message Manager

3. Define the BBS configuration...

4. From Outpost: Setups > BBS

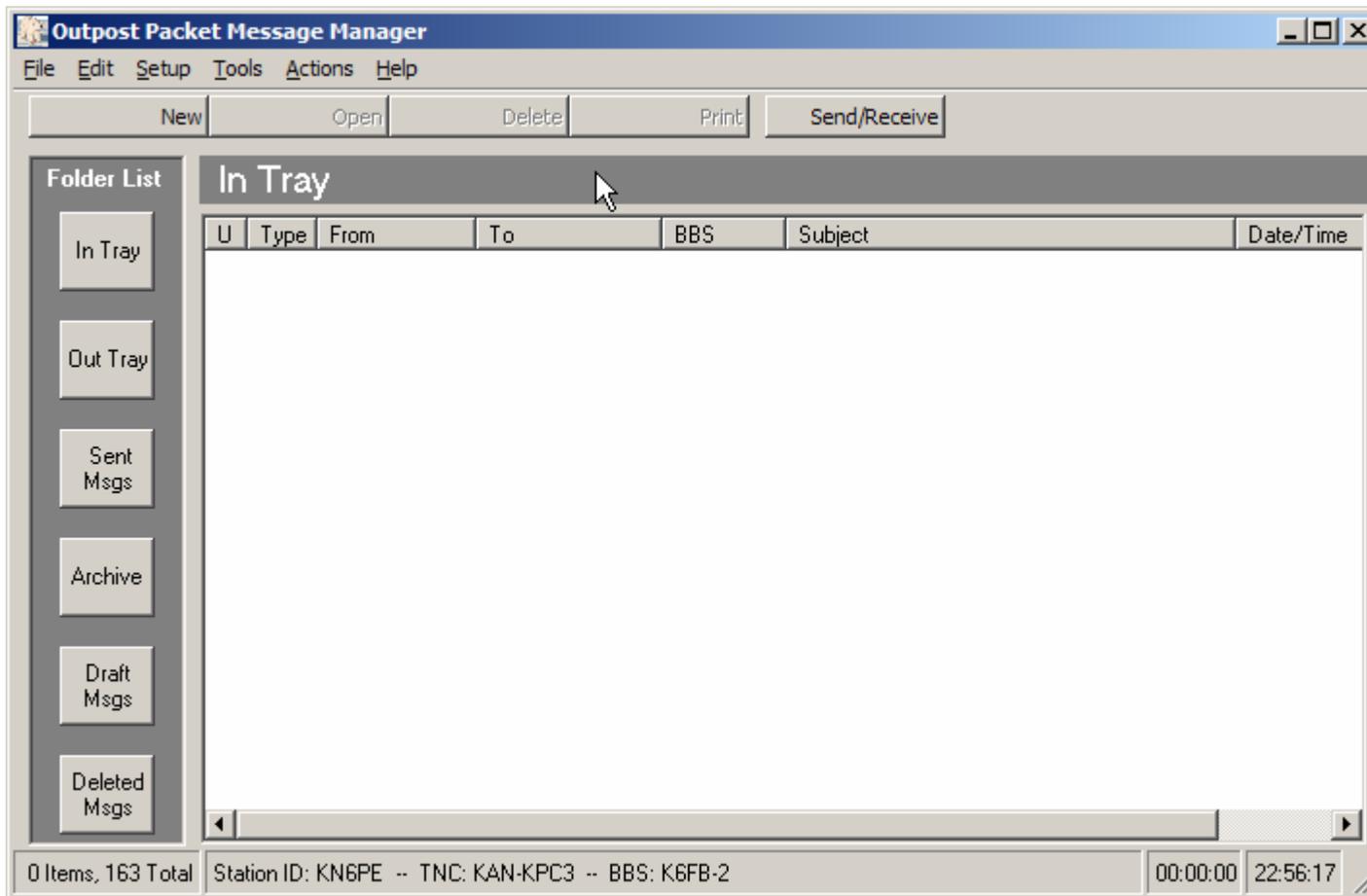
- Press New
- Enter the BBS Connect Name (ie: K6FB-2)
- Enter a description of the BBS
- BBS Prompts and BBS Commands default settings should be valid.
- BBS Path defaults to Direct (change for digipeating or through KA-Nodes/NETROM)
- Press OK



4. Outpost Configuration

Outpost Packet Message Manager

5. Note the Status Bar and the current Outpost settings

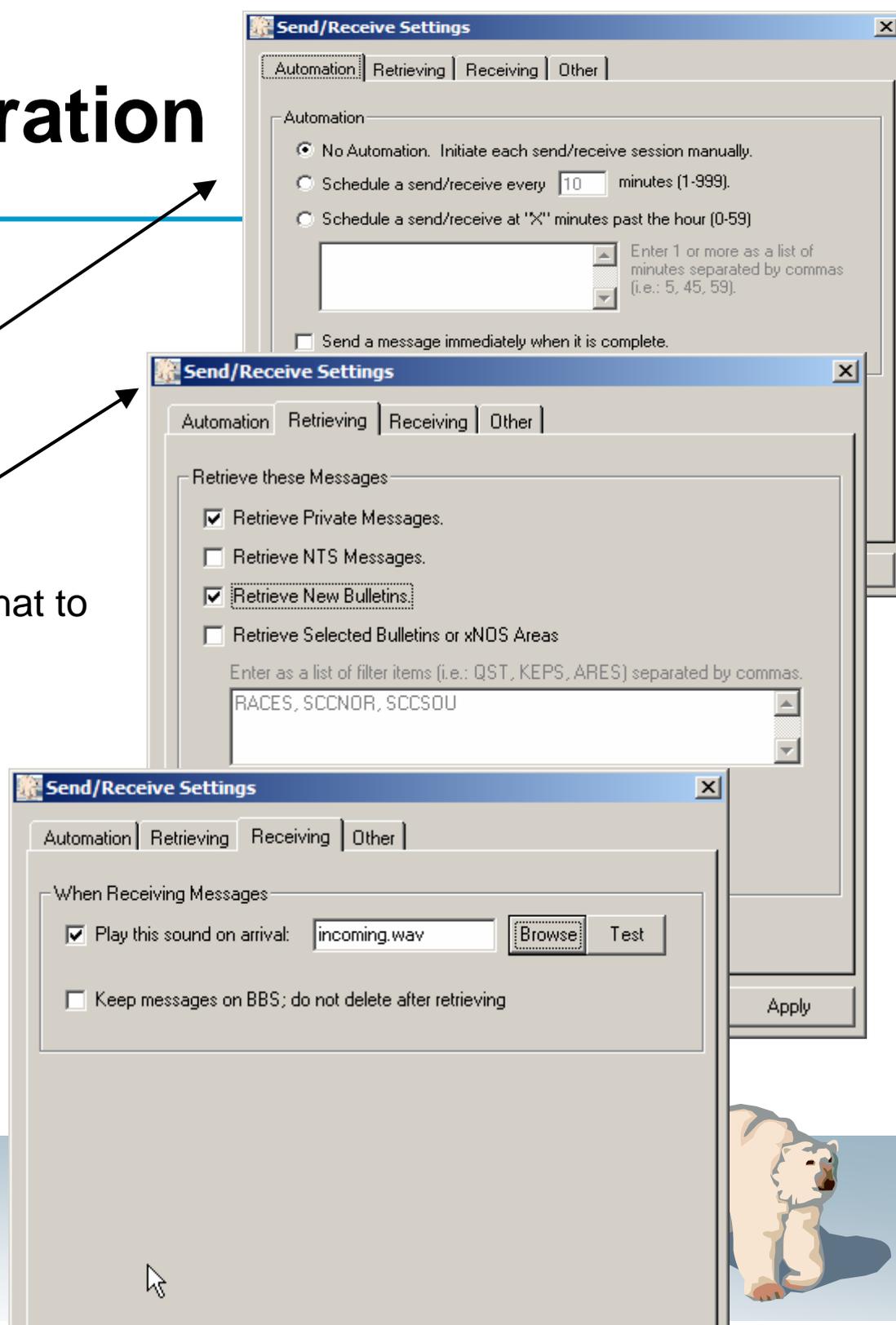


4. Outpost Configuration

Outpost Packet Message Manager

6. Tools > Send/Receive Settings

- Selects different ways to automate the message send/retrieve sessions
- Select which message types are to be retrieved
- Once a message is received, select what to do with it
- Additional controls (**Other** tab) manage printing received and sent messages

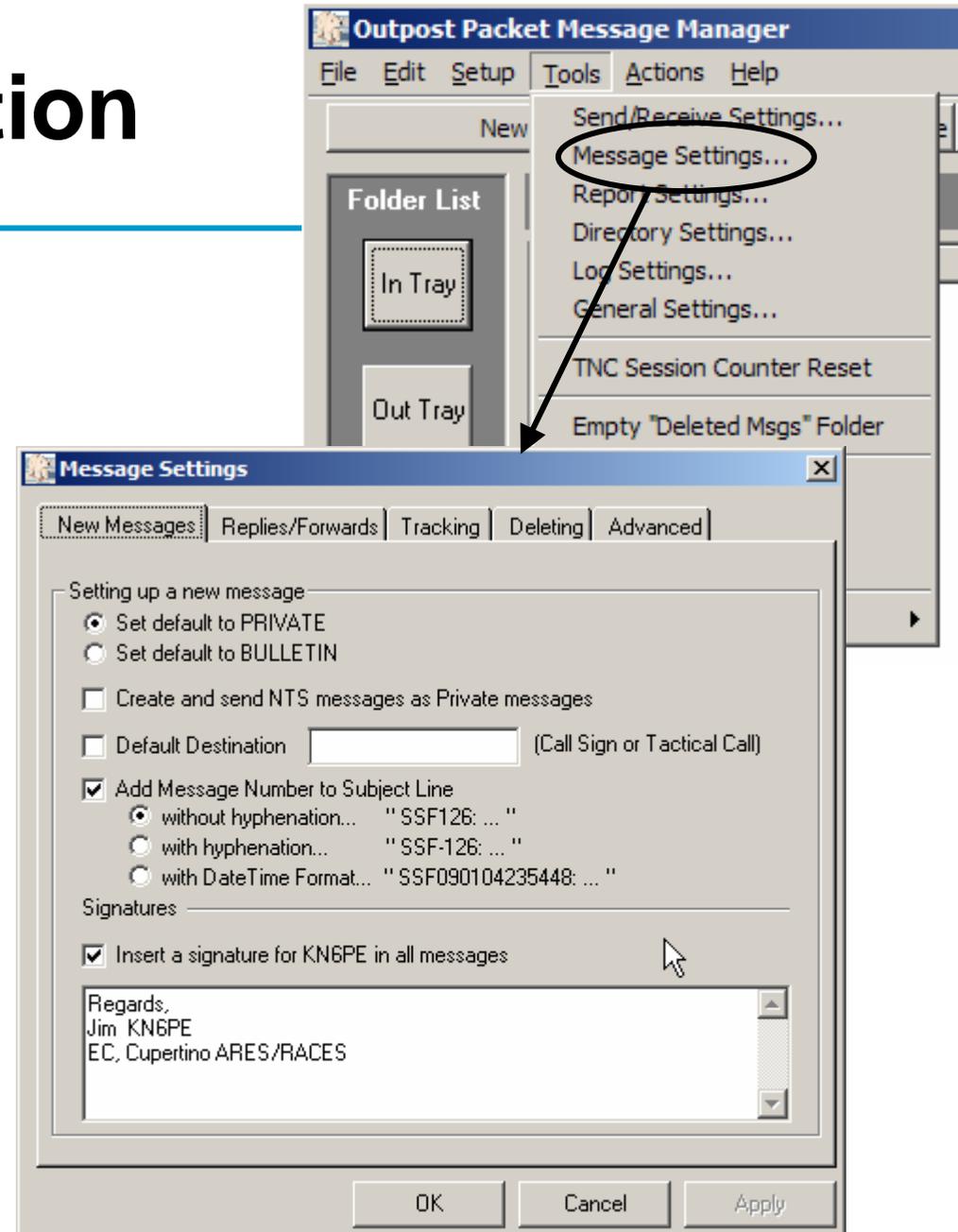


4. Outpost Configuration

Outpost Packet Message Manager

7. Message Settings

- Define default settings for new messages, includes
 - Default destinations
 - Auto message numbering
 - Message Signature
- Handling replies and forwards
- Set up defaults for requesting message receipts
- Setting for permanently deleting messages

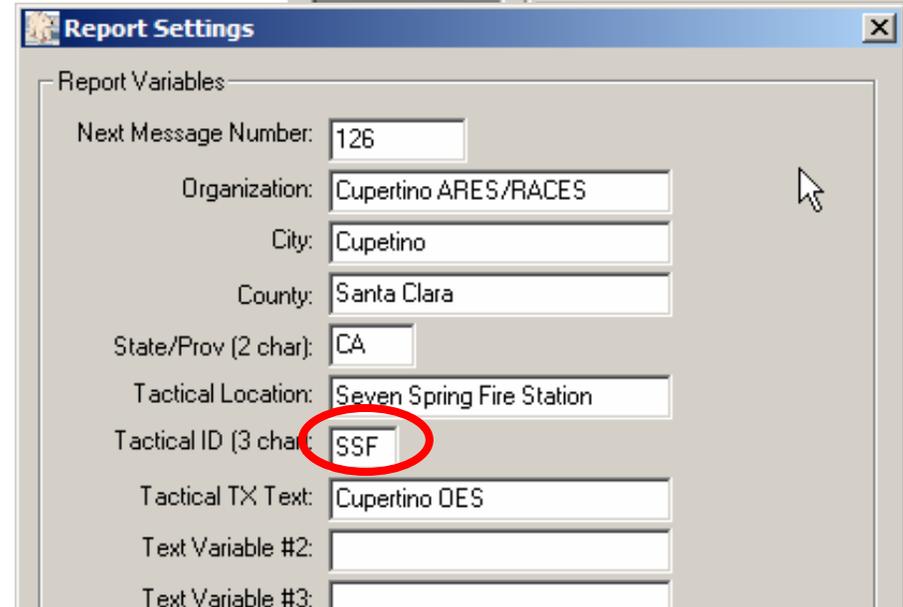
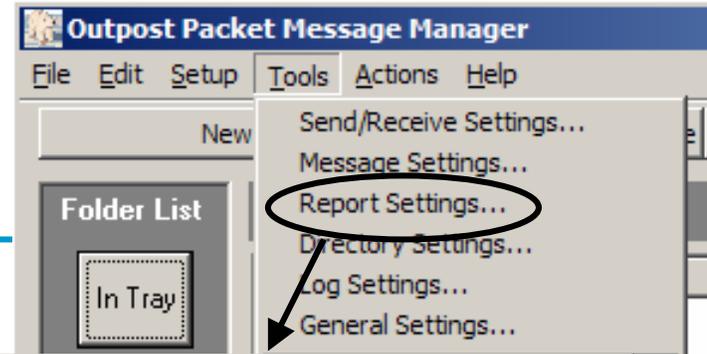


4. Outpost Configuration

Outpost Packet Message Manager

8. Report Settings

- Message number automatically increments and populates...
 - Subject Line
 - NTS Messages
 - On-line reports
- Standard report variables automatically replace <tags> in On-line Reports (described later)
- Note where tags are used...



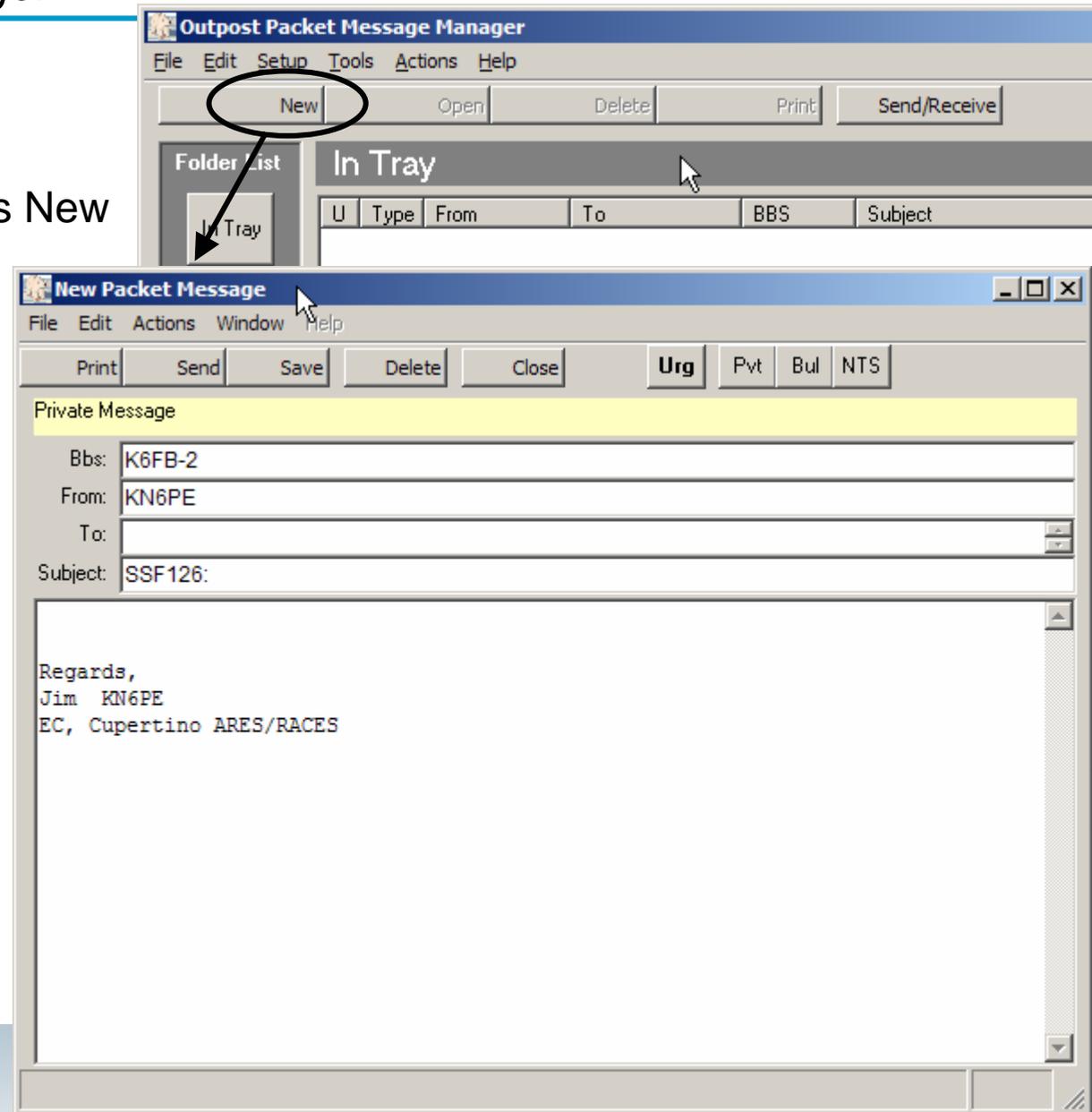
Field	On-Line Reports	NTS Message Maker	Message Subject Line
Next Message Number	X	X	X
Organization	X		
City	X	X	
County	X		
State/Prov	X	X	
Tactical Location	X		
Tactical ID	X		X
Tactical TX Text	X		
Text Variable #2, 3	X		

5. First Message

Outpost Packet Message Manager

9. Create your first message

- From Outpost main form, press New
- Note what is filled in:
 - BBS
 - From
 - Subject Msg ID
 - Signature
- Address it to yourself for a round-trip message
- Fill in the balance of the subject line
- Fill in the body of the message
- Press “Send” when done
- Message is placed in the Out Tray



5. First Message

Outpost Packet Message Manager

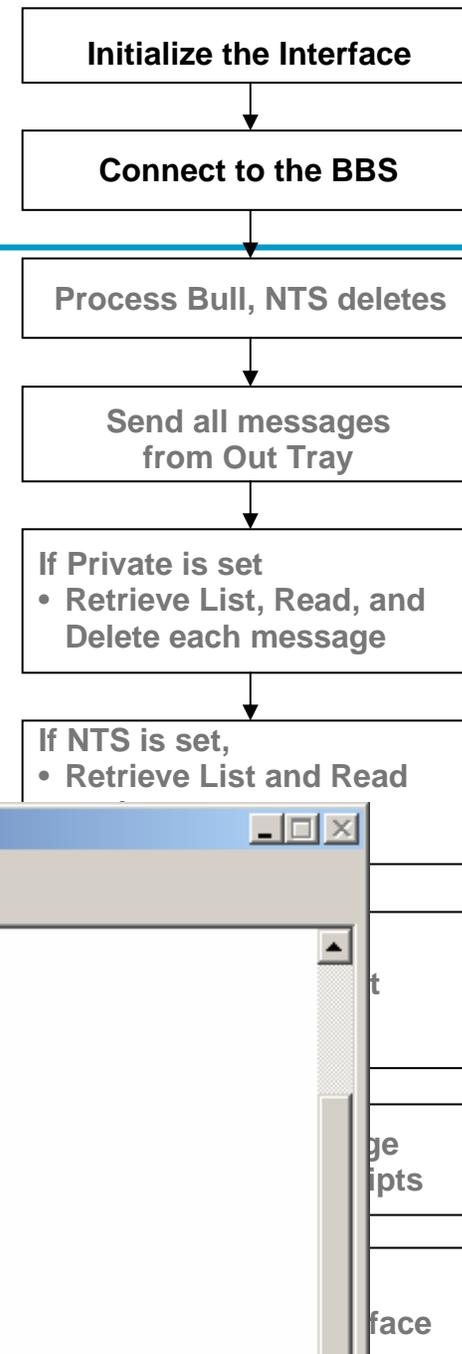
10. Send your first message

Type	From	To	BBS	Subject	Date/Time	Size
B	KN6PE	USERS	KN6PE-1	Welcome to Outpost version 1.1	03/06/04 12:39	1104
B	KN6PE	USERS	KN6PE-1	What's new in Outpost 1.1	03/06/04 12:39	2880
B	KN6PE	USERS	KN6PE-1	Defects corrected in 1.1.1	03/14/04 15:50	731

```
Abort Session

ECHO was ON
cmd:my KN6PE
cmd:Mon off
MONITOR was OFF
cmd:daytime 040220105032
cmd:connect K6FB-2
cmd:*** CONNECTED to K6FB-2
[KPC3-5.1-HM$]
91200 BYTES AVAILABLE
THERE ARE 13 MESSAGES NUMBERED 24-675
Welcome to the LCCARC packet mailbox.
ENTER COMMAND: B,J,K,L,R,S, or Help >
LM

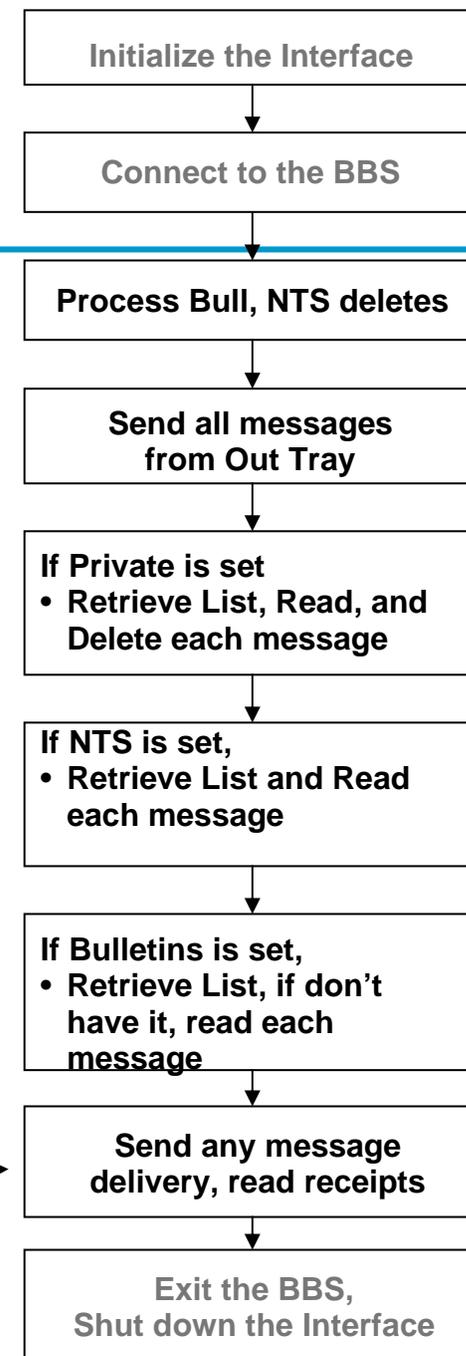
 Always show this window during a Send/Receive session
Retrieving Message List... 00:00:04
```



5. First Message

Outpost Packet Message Manager

- **Influenced by...**
 - Send/Receive Settings
- **Send Messages**
 - Only sent from the Out Tray to this BBS
 - Messages must be “Sent” not “Saved”
 - Moved to Sent Folder when sent
- **Retrieve Messages**
 - Depends on the Retrieve settings; if none are selected, none are retrieved
 - Depends on the “Keep on BBS” setting
 - Bulletins are never deleted
 - New messages are stored in the In Tray
- **Send Receipts**
 - Any pending Delivery and Read Receipts are sent back to the requester



For more information

Outpost Packet Message Manager



Outpost Packet Message Manager HOW-TOs

Outpost How-To's

The Outpost program does not include any online help. Instead, a series of HOW-TO files are provided with the application and are available on-line here. See the [Outpost Users Guide](#) for other details.

Interface How-Tos

1. [AGWPE Set up](#)
2. [Telnet Set up](#)
3. [Telnet Setup for Winlink](#)
4. [TNC Command file](#)
5. [TNC Setup](#)

BBS/PBBS How-Tos

1. [BBS Set up](#)
2. [BBS Set up for Santa Clara County RACES](#)
3. [Connecting to a local KPC3/ KPC9612 PBBS](#)
4. [Connecting to a local MFJ-127X PBBS](#)
5. [Connecting to a local PK-232/DSP-232 PBBS](#)
6. [Using KA-Node/ Netrom \(BPQ\) Access](#)

Messaging How-Tos

1. [Acknowledge Read, send automatically](#)
2. [Add a signature](#)
3. [Annunciation](#)
4. [Automatic Retrieval](#)
5. [Creating a message](#)
6. [Drag and Drop](#)
7. [Forwarding/Replying](#)
8. [Numbering messages](#)
9. [Online reports](#)
10. [Online Reports, one touch loading](#)
11. [Printing Automatically](#)
12. [Requesting Delivery and Read Receipts](#)
13. [Retrieving selected bulletins](#)
14. [Send as Urgent](#)
15. [Sending a text file](#)

Miscellaneous How-Tos

1. [Enhanced Channel Monitoring](#)
2. [Tactical Calls](#)



For more information

Outpost Packet Message Manager

Visit the Outpost website...

<http://www.outpostpm.org>

And supporting links...

- Users Guide... <http://www.outpostpm.org/#documentation>
- HOW-TOs... <http://www.outpostpm.org/howto.html>
- Support Info... <http://www.outpostpm.org/support.html>
- Users group... <http://groups.yahoo.com/group/outpostpacket/>

Send inquiries to...

Jim Oberhofer, kn6pe@arrl.net



Thank you!

Any Questions?

