

PerCon DataLinks Co-Channel / Adjacent Channel Analysis

Tutorial #4

Last Revision: July 2003

Introduction

This tutorial was designed to help DataLinks users operate the Co-Channel / Adjacent Channel Analysis tool. New users or users unfamiliar with the DataLinks system may need to refer to Tutorials #1 and #2 before using the co-channel tool. This document assumes the user is familiar with concepts covered in the first two tutorials.

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Co-Channel / Adjacent Channel Analysis Overview

Selecting The Channel Analysis Tool

After logging in to the system, a list of database categories is displayed. To select the channel analysis tool, click on Co-Channel/Adjacent Channel Analysis from the Tools and Utilities category.

[Tools and Utilities](#)

[Find Available Frequencies](#)

[Find Available Frequencies - Public Safety](#)

[Co-Channel / Adjacent Channel Analysis \(Single Frequency\)](#)

[Find Available Frequencies - US & Canada](#)

Note: The DataLinks channel analysis tool is only available for unlimited subscription users. DataLinks users who do not have unlimited access accounts will not be able to use the frequency finders.

Using The Channel Analysis Tool

Step 1: Enter the center latitude and longitude.

Note: The latitude must be a 6-digit value and the longitude must be a 7-digit value. Any longitude values less than 100 degrees require a leading zero.

Step 2: Enter a search distance in miles.

Step 3: Enter a single frequency in MHz.

Step 4: Enter the adjacent channel distance.

Step 5: Enter the frequency spacing in KHZ.

Note: The frequency finder does not verify the spacing provided by the user. It is the user's responsibility to ensure the spacing entered is valid for the specified frequency range.

The screenshot shows a web form titled "Co-Channel / Adjacent Channel Analysis Single Frequency Version". The form is organized into several sections:

- Distance & Center Point:** Contains three input fields: "Latitude (Required):" with value "420931", "Longitude (Required):" with value "0793106", and "Distance (Required):" with value "5".
- Frequency Information:** Contains one input field: "Frequency - (Required):" with value "46.12".
- Adjacent Channels:** Contains two input fields: "Adjacent Channel Distance:" with value "5" and "Adj. Chan. Spacing - KHZ:" with a dropdown menu showing "20".
- Output Options:** Includes a dropdown menu for "OUTPUT FORMAT" set to "Detail", a checkbox for "STATISTICS" which is unchecked, and a text input field for "Client / Project Code".
- Buttons:** "Submit" and "Reset" buttons are located at the bottom of the form.

The search criteria show in the above screen shot is valid and can be used as test values.

Step 6: Once data has been entered into the required fields, select an output option and click the Submit button to run the search. For additional information on the difference between output options, see the Co-Channel / Adjacent Channel Analysis Output section.

Co-Channel / Adjacent Channel Analysis Output

Detail Format

The Detail format outputs search results in a web page with the search criteria at the top of the page followed by a co-channel and adjacent channel summary. The summary portion is divided in co-channel and adjacent channel groups. Each group displays 12 fields of data per record including the frequency, distance and bearing from the center point, callsign, radio service and class of station codes, owner name, city, county and state and the number of units and ERP.

Frequency :46.12
Latitude :420931
Longitude :0793106
Distance :35
Adjacent Distance :5
Adjacent Spacing :20
Client Code :TEST

Co-Channel Frequency

Frequency	Distance	Bearing	Callsign	RS	CS	Licensee Name
46.12000	24.3180	22.7190	KED653	PW	FB	DUNKIRK, CITY OF
46.12000	24.5110	22.6370	KED653	PW	FB	DUNKIRK, CITY OF
46.12000	24.5110	22.6370	KED653	PW	MO	DUNKIRK, CITY OF

Adjacent Channel Frequency

Frequency	Distance	Bearing	Callsign	RS	CS	Licensee Name
46.10000	3.9960	300.6070	WPNZ526	PW	FB	STANLEY HOSE COMPANY INC
46.10000	3.9960	300.6070	WPNZ526	PW	MO	STANLEY HOSE COMPANY INC
46.10000	4.4120	38.8930	KLS528	PW	FB	CHAUTAUQUA VOLUNTEER FIRE DEPT
46.14000	3.9960	300.6070	WPNZ526	PW	FB	STANLEY HOSE COMPANY INC

Detail With Links Format

The Detail With Link output format also displays search results in a web page with the same frequency summary as the Detail format. In addition, searchable links are included for the callsign, owner name and city fields. By clicking on the links, users can retrieve all records for a callsign, owner name or a city.

Excel Format

The Excel File format outputs the results of the co-channel and adjacent channels into two separate Excel files. Users should save the files to their hard drive before opening the file. For more information on saving files, please see Tutorial #2.

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DataLinks Tutorials

Tutorial #1:
Introduction To PerCon DataLinks

Tutorial #2:
PerCon DataLinks Output Options

Tutorial #3:
DataLinks Frequency Finder

Tutorial #4:
**PerCon DataLinks Co-Channel /
Adjacent Channel Analysis**