

# **Standard Route Clearance Tool Manual**

Version: 1.1

Effective: 18 September 2021

Authority: Operations Director

### 1. Contents

2.		Document Control	3
	2.1	Version Log	3
	2.2	Change Process	3
	2.3	Special Thanks	3
3.		Application Overview	4
	3.1	Purpose	4
	3.2	Features	4
4.		Application Installation	5
	4.1	vatSys Plugin	5
	4.1	Standalone Application	6
	4.2	Standalone Application Updating	6
5.		Using the Tool	7
	5.1	Entering Data	7
	5.2	Copying Data	7
6.		Maintaining the Tool	8

# 2. Document Control

### 2.1 Version Log

Standard Route Clearance Tool Manual				
Date	Version	Description		
17 SEP 2021	0.1	Initial Document for Beta release.		
17 SEP 2021	1.0	Standalone Installer section added. Minor formatting changes.		
31 OCT 2021	1.1	Added information about the automatic update feature of the Standalone Client. Updated GitHub repository links to reflect the new main branch.		

### 2.2 Change Process

- 2.2.1 This Document is owned by the Operations Director.
- 2.2.2 Changes to this document are made with approval from the Director Operations alongside technical review by the Operations Team.

### 2.3 Special Thanks

*2.3.1* The VATNZ Operations Department wishes to make special thanks to Alex Cutforth, the original project lead. Without you, this project wouldn't have gotten off the ground. Thank you.

### 3. Application Overview

#### 3.1 Purpose

- 3.1.1 The Standard Route Tool provides both Controllers and Pilots with the ability to quickly and efficiently find any Standard Routes that exist within the New Zealand AIP<sup>1</sup>.
- 3.1.2 The SRC Tool is included by default in the vatSys NZZC Dataset, and as a standalone application that can be used alongside EuroScope and Pilot clients.

### 3.2 Features

- 3.2.1 The Standard Route Clearance Tool:
  - a. allows the user to enter the Route Designator (AAWN2), where the Tool then returns the standard routing;
  - b. allows the user to enter the flight plan routing, where the Tool then returns the Route Designator; and
  - c. allows the user to enter the departure and destination aerodromes, where the Tool returns all available standard routes; and
  - d. includes route-specific instructions or restrictions, such as
    - i whether the route is restricted to jet or propellor aircraft;
    - ii any applicable altitude restrictions; and
    - iii any other pertinent operational information.
- 3.2.2 The Tool also allows for the quick copy and pasting of data from the Tool by clicking either the Route or Designator labels.
- 3.2.3 The Tool automatically updates the included Route database whenever the Tool is opened, should an update be published.
- 3.2.4 The Standalone Client can update remotely when a new update is pushed.
- 3.2.5 The Tool is also fully open source, with the source code available on the VATNZ GitHub page.

<sup>&</sup>lt;sup>1</sup> Aeronautical Information Publication

## 4. Application Installation

### 4.1 vatSys Plugin

- 4.1.1 The latest version of the Standard Route Tool is included by default in the New Zealand Domestic Dataset. The Plugin's integration with vatSys is tested every AIRAC Cycle release, however there is a potential that a mid-cycle client update *could* break the plugin.
- 4.1.2 If a mid-cycle Client update breaks the Plugin, you can manually install the Plugin by:
  - a. navigating to releases section of the GitHub repository,
  - b. downloading and extracting the latest version of the release archive,
  - c. dragging the *Plugins* directory into the *Documents/vatSys Files/Profiles/New Zealand/* folder, as illustrated in Figure 1.

Name Date modified Type Size Name Plugins 3003/2021 8:30 PM File folder Plugins 1709/2021 10:40 PM File folder ind-dataset AlerParameters 2003/2021 12:43 AM XML Document 3 KB radio-dataset Closurs 2203/2021 12:43 AM XML Document 13 KB CODUC 22030/2021 12:43 AM XML Document 12 KB CODUC 22030/2021 12:43 AM XML Document 14 KB dup Default/unisdiction 22/03/2021 12:43 AM XML Document 14 KB dup Default/unisdiction 23/03/2021 12:43 AM XML Document 14 KB radio-dataset 23/03/2021 12:43 AM XML Document 14 KB Policity Beforemance 23/03/2021 12:43 AM XML Document 2 KB Profile 23/03/2021 12:43 AM XML Document 1 KB Radars 23/03/2021 12:43 AM XML Document 2 KB RestrictedAreas 23/03/2021 12:43 AM XML Document 1 KB Radars 23/03/2021 12:43 AM XML Document 2 KB RestrictedAreas 23/03/2021 12:43 AM XML Document 1 KB Radars 23/03/2021 12:43 AM XML Document 4 KB RestrictedAreas 23/03/2021 12:43 AM XML Document 4 KB Restri	🔒 > This PC > Docume	ents⇒ va	tSys Files → Profiles → New Zeala	nd >		✓ 🗗 🔎 Search New Zeal	and
index     Maps     30/3/2021 8:30 PM     File folder       index     Plugins     17/09/2021 16:40 PM     File folder       indextaset     Airspace     30/3/2021 12:43 AM     XML Document     396 K8       radio-dataset     Airspace     20/3/2021 12:43 AM     XML Document     3 K8       o)     CPDLC     23/03/2021 12:43 AM     XML Document     13 K8       individual     CPDLC     23/03/2021 12:43 AM     XML Document     14 K8       individual     CPDLC     23/03/2021 12:43 AM     XML Document     14 K8       individual     CPDLC     23/03/2021 12:43 AM     XML Document     14 K8       individual     Defaultburisdiction     23/03/2021 12:43 AM     XML Document     1 K8       undiviews     Labels     23/03/2021 12:43 AM     XML Document     1 K8       undiviews     Labels     23/03/2021 12:43 AM     XML Document     1 K8       ing     MET     23/03/2021 12:43 AM     XML Document     1 K8       ing     Performance     23/03/2021 12:43 AM     XML Document     1 K8       ing     Performance     23/03/2021 12:43 AM     XML Document     1 K8       ing     Performance     23/03/2021 12:43 AM     XML Document     1 K8       is     Sectors     23/03/202		* ^	Name	Date modified	Туре	Size	
wice       Plugins       17/09/2021 10:40 PM       File folder         wice       Airspace       30/03/2021 817 PM       XML Document       396 KB         nd-dataset       Airspace       21/03/2021 12:43 AM       XML Document       31 KB         radio-dataset       Colours       21/03/2021 12:43 AM       XML Document       13 KB         odio-dataset       Colours       21/03/2021 12:43 AM       XML Document       12 KB         FlightSimulator_Swelyb3d8t       Colours       23/03/2021 12:43 AM       XML Document       14 KB         skup       DEM       23/03/2021 12:43 AM       XML Document       14 KB         und-views       Edeks       23/03/2021 12:43 AM       XML Document       14 KB         und-views       Edeks       23/03/2021 12:43 AM       XML Document       14 KB         und-views       Edeks       23/03/2021 12:43 AM       XML Document       14 KB         und-views       Edeks       23/03/2021 12:43 AM       XML Document       14 KB         und-views       Edeks       23/03/2021 12:43 AM       XML Document       14 KB         ent and Publicity       Performance       23/03/2021 12:43 AM       XML Document       14 KB         Pofile       23/03/2021 12:43 AM       XML Docu		*	🛃 Maps	30/03/2021 8:30 PM	File folder		
vie <ul> <li>Airspace</li> <li>Bolizatest</li> <li>Airspace</li> <li>Bolizatest</li> <li>AlertParameters</li> <li>22/03/2021 12:43 AM</li> <li>XML Document</li> <li>3KB</li> </ul> vi         AlertParameters         22/03/2021 12:43 AM         XML Document         3KB           vi         Colours         20/03/2021 12:43 AM         XML Document         18 KB           vi         Colours         20/03/2021 12:43 AM         XML Document         12 KB           vi         Of         Of            Of OPUC         23/03/2021 12:43 AM         XML Document         14 KB           ckup         Of         Of          Of           Of             Of		*	📙 Plugins	17/09/2021 10:40 PM	File folder		
nd-dataset AllerParameters 23/03/2021 12:43 AM XML Document 3 KB radio-dataset AllerParameters 23/03/2021 12:43 AM XML Document 13 KB Colours 23/03/2021 12:43 AM XML Document 12 KB Colours 23/03/2021 12:43 AM XML Document 14 KB DefaultJurisdiction 23/03/2021 12:43 AM XML Document 14 KB Misc 23/03/2021 12:43 AM XML Document 2KB Misc 23/03/2021 12:43 AM XML Document 14 KB DefaultJurisdictions 23/03/2021 12:43 AM XML Document 2KB Misc 23/03/2021 12:43 AM XML Document 14 KB DefaultJurisdictions 23/03/2021 12:43 AM XML Document 46 KB DefaultJurisdictions 23/03/2021 12:43 AM XML Document 14 KB DefaultJurisdictions 23/03/2021 12:43 AM XML Document 24 KB DefaultJurisdi	ive	*	📄 Airspace	30/03/2021 8:17 PM	XML Document	396 KB	
radio-dataset v) ATIS 23/03/2021 12:43 AM XML Document 13 KB Colours 23/03/2021 12:43 AM XML Document 12 KB Colours Co	nd-dataset	*	AlertParameters	23/03/2021 12:43 AM	XML Document	3 KB	
v) i Colours 23/03/2021 12:43 AM XML Document 12 KB FlightSimulator_Bwekyb3d8L chup i DefaultJurisdiction 23/03/2021 12:43 AM XML Document 14 KB DefaultJurisdiction 23/03/2021 12:43 AM XML Document 1 KB DDM 23/03/2021 12:43 AM XML Document 9 KB ting i MET 23/03/2021 12:43 AM XML Document 2 KB Misc 23/03/2021 12:43 AM XML Document 1 KB Misc 23/03/2021 12:43 AM XML Document 2 KB Misc 23/03/2021 12:43 AM XML Document 1 KB Profile 23/03/2021 12:43 AM XML Document 1 KB Profile 23/03/2021 12:43 AM XML Document 1 KB Radars 23/03/2021 12:43 AM XML Document 1 KB Radars 23/03/2021 12:43 AM XML Document 1 KB Radars 23/03/2021 12:43 AM XML Document 7 KB RestrictedAreas 23/03/2021 12:43 AM XML Document 69 KB SSRAssignment 23/03/2021 12:43 AM XML Document 4 KB Volumes 23/03/2021 12:43 AM XML Document 4 KB Volumes 23/03/2021 12:43 AM XML Document 4 KB Volumes 23/03/2021 12:43 AM XML Document 2 KB SSRAssignment 23/03/2021 12:43 AM XML Document 4 KB Volumes 23/03/2021 12:43 AM XML Document 2 KB Volumes 23/03/2021 12:43 AM XML Document 2 KB SVI Volumes 23/03/2021 12:43 AM XML Document 2 KB Volumes 23/03/2021 12:43 AM XML DocuMENT	radio-dataset	*	📄 ATIS	23/03/2021 12:43 AM	XML Document	13 KB	
**       **       **       **       **         FlightSimulator_8wekyb3dBt *       **	2	Ĵ.	Colours	23/03/2021 12:43 AM	XML Document	12 KB	
rightsimulator_averyb3de: #  DefaultJurisdiction  23/03/2021 12:43 AM  XML Document  1 KB  ckup  DEM  DEM  23/03/2021 12:43 AM  XML Document  1 KB  Labels  23/03/2021 12:43 AM  XML Document  2 KB  Misc  23/03/2021 12:43 AM  XML Document  46 KB  Porformance  23/03/2021 12:43 AM  XML Document  46 KB  Porfore  Porfole  23/03/2021 12:43 AM  XML Document  1 KB  Porfole  23/03/2021 12:43 AM  XML Document  46 KB  Porfole  Porfole  23/03/2021 12:43 AM  XML Document  1 KB  Radars  23/03/2021 12:43 AM  XML Document  46 KB  Porfole  Porfole  23/03/2021 12:43 AM  XML Document  46 KB  Porfole  Porfole  23/03/2021 12:43 AM  XML Document  46 KB  Porfole  Porfole  23/03/2021 12:43 AM  XML Document  46 KB  Porfole  Porfole  23/03/2021 12:43 AM  XML Document  46 KB  Porfole  Porfole  23/03/2021 12:43 AM  XML Document  46 KB  Porfole  Porfole  23/03/2021 12:43 AM  XML Document  46 KB  Porfole  Porfole  23/03/2021 12:43 AM  XML Document  46 KB  Porfole  Porfole  23/03/2021 12:43 AM  XML Document  46 KB  Porfole  Porfole  23/03/2021 12:43 AM  XML Document  46 KB  Porfole  Porfole  23/03/2021 12:43 AM  XML Document  46 KB  Porfole  Porfole  23/03/2021 12:43 AM  XML Document  46 KB  Porfole  Porfole  Porfole  23/03/2021 12:43 AM  XML Document  46 KB  Porfole  Porfole  Porfole  23/03/2021 12:43 AM  XML Document  46 KB  Porfole  Porfole Porfole Porfole  Porfole Porfole Porfole Porfole Porfole Porfole Porfole Porfole Porfole Porfole Porfole Porfole Porfole Porfole Porfole	۲/ FlishtCirculates Occulate2.4	.î. I	CPDLC	23/03/2021 12:43 AM	XML Document	14 KB	
stup       DEM       23/03/2021 12:43 AM       XML Document       1 KB         und-views       Labels       23/03/2021 12:43 AM       XML Document       9 KB         ting       MET       23/03/2021 12:43 AM       XML Document       2 KB         Misc       23/03/2021 12:43 AM       XML Document       2 KB         Metro       23/03/2021 12:43 AM       XML Document       46 KB         Performance       23/03/2021 12:43 AM       XML Document       41 KB         Performance       23/03/2021 12:43 AM       XML Document       46 KB         Profile       23/03/2021 12:43 AM       XML Document       1 KB         Radars       23/03/2021 12:43 AM       XML Document       7 KB         RestrictedAreas       23/03/2021 12:43 AM       XML Document       66 KB         Sectors       23/03/2021 12:43 AM       XML Document       5 KB         S       SSRAssignment       23/03/2021 12:43 AM       XML Document       5 KB         S       SSRAssignment       23/03/2021 12:43 AM       XML Document       2 KB         Volumes       23/03/2021 12:43 AM       XML Document       2 KB         S       Volumes       23/03/2021 12:43 AM       XML Document       2 KB         Volumes	FlightSimulator_8wekyb3d8	• <b>*</b>	DefaultJurisdiction	23/03/2021 12:43 AM	XML Document	1 KB	
und-views * Labels 23/03/2021 12:43 AM XML Document 9 KB ting * MET 23/03/2021 12:43 AM XML Document 2 KB Misc 23/03/2021 12:43 AM XML Document 46 KB Performance 23/03/2021 12:43 AM XML Document 46 KB Performance 23/03/2021 12:43 AM XML Document 1 KB Porfile 23/03/2021 12:43 AM XML Document 7 KB RestrictedAreas 23/03/2021 12:43 AM XML Document 69 KB ts Sc SRAssignment 23/03/2021 12:43 AM XML Document 5 KB Volumes 23/03/2021 12:43 AM XML Document 4 KB Volumes 23/03/2021 12:43 AM XML Document 21 KB Sc SRAssignment 23/03/2021 12:43 AM XML Document 21 KB Volumes 23/03/2021 12:43 AM XML Document 21 KB	ckup	*	DEM	23/03/2021 12:43 AM	XML Document	1 KB	
ting MET 23/03/2021 12:43 AM XML Document 2 KB Misc 23/03/2021 12:43 AM XML Document 1 KB Performance 23/03/2021 12:43 AM XML Document 46 KB Positions 23/03/2021 12:43 AM XML Document 21 KB Positions 23/03/2021 12:43 AM XML Document 1 KB Radars 23/03/2021 12:43 AM XML Document 7 KB Radars 23/03/2021 12:43 AM XML Document 5 KB Sectors 23/03/2021 12:43 AM XML Document 2 KB Tracks 23/03/2021 12:43 AM XML Document 4 KB Volumes 23/03/2021 12:43 AM XML Document 2 KB Volumes 23/03/2021 12:43 AM XML Document 2 KB Volumes 23/03/2021 12:43 AM XML Document 2 KB	und-views	*	Labels	23/03/2021 12:43 AM	XML Document	9 KB	
sent and Publicity als for the sent of the sentence of the se	ting	*	MET	23/03/2021 12:43 AM	XML Document	2 KB	
sett and Publicity       ii Performance       23/03/2021 12:43 AM       XML Document       46 KB         ials       23/03/2021 12:43 AM       XML Document       21 KB         ials       Profile       23/03/2021 12:43 AM       XML Document       1 KB         Radars       23/03/2021 12:43 AM       XML Document       7 KB         RestrictedAreas       23/03/2021 12:43 AM       XML Document       69 KB         iss       Sectors       23/03/2021 12:43 AM       XML Document       5 KB         ts       SSRAssignment       23/03/2021 12:43 AM       XML Document       2 KB         Volumes       23/03/2021 12:43 AM       XML Document       4 KB         Volumes       23/03/2021 12:43 AM       XML Document       2 KB			📄 Misc	23/03/2021 12:43 AM	XML Document	1 KB	
ials       23/03/2021 12:43 AM       XML Document       21 KB         ials       Profile       23/03/2021 12:43 AM       XML Document       1 KB         Radars       23/03/2021 12:43 AM       XML Document       7 KB         RedrictedAreas       23/03/2021 12:43 AM       XML Document       69 KB         Sectors       23/03/2021 12:43 AM       XML Document       5 KB         Its       SSRAssignment       23/03/2021 12:43 AM       XML Document       4 KB         Volumes       23/03/2021 12:43 AM       XML Document       4 KB         Volumes       23/03/2021 12:43 AM       XML Document       4 KB	ent and Publicity		Performance	23/03/2021 12:43 AM	XML Document	46 KB	
iii Profile       23/03/2021 12:43 AM       XML Document       1 KB         iii Radars       23/03/2021 12:43 AM       XML Document       7 KB         iii RestrictedAreas       23/03/2021 12:43 AM       XML Document       69 KB         iii Sectors       23/03/2021 12:43 AM       XML Document       5 KB         iii Sectors       23/03/2021 12:43 AM       XML Document       5 KB         iii Sectors       23/03/2021 12:43 AM       XML Document       4 KB         iii Sectors       23/03/2021 12:43 AM       XML Document       4 KB         iii Volumes       23/03/2021 12:43 AM       XML Document       4 KB         iii Volumes       23/03/2021 12:43 AM       XML Document       2 KB	uale ,		Positions	23/03/2021 12:43 AM	XML Document	21 KB	
nts is SRAssignment 23/03/2021 12:43 AM XML Document 7 KB Sectors 23/03/2021 12:43 AM XML Document 69 KB SSRAssignment 23/03/2021 12:43 AM XML Document 5 KB Tracks 23/03/2021 12:43 AM XML Document 2 KB Volumes 23/03/2021 12:43 AM XML Document 4 KB Volumes 23/03/2021 12:43 AM XML Document 21 KB			Profile	23/03/2021 12:43 AM	XML Document	1 KB	
nts 23/03/2021 12:43 AM XML Document 69 KB Sectors 23/03/2021 12:43 AM XML Document 5 KB SSRAssignment 23/03/2021 12:43 AM XML Document 2 KB Tracks 23/03/2021 12:43 AM XML Document 4 KB Volumes 23/03/2021 12:43 AM XML Document 21 KB			📄 Radars	23/03/2021 12:43 AM	XML Document	7 KB	
nts 23/03/2021 12:43 AM XML Document 5 KB SSRAssignment 23/03/2021 12:43 AM XML Document 2 KB Tracks 23/03/2021 12:43 AM XML Document 4 KB Volumes 23/03/2021 12:43 AM XML Document 21 KB			RestrictedAreas	23/03/2021 12:43 AM	XML Document	69 KB	
ts SRAssignment 23/03/2021 12:43 AM XML Document 2 KB Tracks 23/03/2021 12:43 AM XML Document 4 KB Volumes 23/03/2021 12:43 AM XML Document 21 KB	nts		Sectors	23/03/2021 12:43 AM	XML Document	5 KB	
s	ts		SSRAssignment	23/03/2021 12:43 AM	XML Document	2 KB	
Volumes 23/03/2021 12:43 AM XML Document 21 KB			📄 Tracks	23/03/2021 12:43 AM	XML Document	4 KB	
۶ ۲۰۰۰			📄 Volumes	23/03/2021 12:43 AM	XML Document	21 KB	
	5			Ņ			

Figure 1 – Location of the Plugins directory for the New Zealand Domestic Dataset

### 4.1 Standalone Application

- 4.1.1 The standalone version of the Tool can be installed through a discrete installer for Windows.
  - a. This installer is available on the GitHub repository for this project.
- 4.1.2 To install the Tool:
  - a. follow the step(s) detailed at sub para 4.1.2 a and b,
  - b. run the included SRCToolInstaller.exe,
  - c. depending on your computer's security settings you may receive a Windows Security notification. This is due to the application being unsigned. This can be ignored by clicking *More info*, and then *Run anyway*,
  - d. run the installer by following the prompts.
- 4.1.3 Once installed, the Tool can be found in your start menu under VATNZ.

#### 4.2 Standalone Application Updating

- 4.2.1 The standalone application checks with a remote server for an application update each time the application is run.
- 4.2.2 If an update is available, you will be prompted with the following window:

Update Av	ailable	$\times$
<b>Applicatio</b> A new	on update v version of VATNZ Standard Route Tool is available. Do you want to download it now?	<mark>ф</mark> 1
Name: From:	<u>VATNZ Standard Route Tool</u> release.dirtyformal.dev	
	OK Skip	

Figure 2 – The update prompt.

- 4.2.3 Depending on your Windows Security settings, you may be given a prompt that "Windows protected your PC". This is normal and is due to the application not being signed by developers. This is the expected behaviour. Click 'Run Anyway'.
  - a. If you are concerned about the content of the application, the code is open source, and available on the <u>VATNZ Github page</u>.

# 5. Using the Tool

#### 5.1 Entering Data

- 5.1.1 The user can input data into the Route Designator, Routing, From or To boxes.
- 5.1.2 If the data in the Route Designator or Routing entry fields match an entry in the included data, the data for that Standard Route will be displayed.
  - a. For Route Designators, it **must** match the *XXYYZ* format. Where *XX* is the departure aerodrome, *YY* is the arrival aerodrome, and Z is the number of the route.
  - b. For the Routing Input, the Tool does not include the entry and exit points to the initial and final airways. However, you'll see that the first waypoint is *KARRL*, which is a common Auckland SID transition.
- 5.1.3 The Tool can also accept a departure and destination aerodrome, which will then display all standard routes between those two aerodromes. You can select white standard route to display by clicking the entry below the From/To input fields.
- 5.1.4 The Tool will also populate the Remarks box with any applicable comments for that route.

### 5.2 Copying Data

5.2.1 The output text underneath the Route Designator and Routing Input fields can be clicked on to copy the text to your computer's clipboard. Any remarks that are displayed can also be copied to the clipboard through the same method.

Route Designator Input AAWN1 Route: H384 KARRL Y506 TPAPA Y738	Routing Input H384 KARRL Y506 TPAPA Y738 Designator: AAWN1
FromTo AA AAWN1 I H384 KARRL Y506 TPAPA Y738	Remarks Reach cleared level by 10NM prior to SILVO

Figure 2 – The Standard Route Tool interface

### 6. Maintaining the Tool

- 6.1.1 The Operations Team is responsible for the ongoing maintenance and management of the Standard Route Tool.
- 6.1.2 All the source code can be found in the dev branch of the *vatSys-SRC-Reader* repository. Link.
- 6.1.3 On opening, the Tool makes a single call to the *Routes.xml* file found within the *Routes* folder of the development repository.
  - a. If the *CycleVersion* on the GitHub is higher than the locally stored data, the GitHub file is downloaded and saved into the local data directory of the Tool.
  - b. If the *CycleVersion* is the same, or lower than the locally stored data, then no action is taken.
- 6.1.4 Updates to Standard Routes are advertised in the AIP Bulletin released monthly by Airways.
  - a. When changes to *Routes.xml* are made, care should be taken to follow the pre-existing XML data structure.
  - b. Standard routes are not always found in the AD 2 61.1 (or .2) for that Aerodrome. Small aerodromes that are designated as IFR-VFR may have their routes in their Operational Data (AD 2 – 52.1) or other plates.
- 6.1.5 Any questions regarding the development of the application can be directed to the Operations Team.