User Manual
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approach Requests</td>
<td>45</td>
</tr>
<tr>
<td>Weather Avoidance Request</td>
<td>45</td>
</tr>
<tr>
<td>Flight Service Station</td>
<td>46</td>
</tr>
<tr>
<td>Initial Contact FSS</td>
<td>46</td>
</tr>
<tr>
<td>Opening / Closing Flight Plans with an FSS</td>
<td>46</td>
</tr>
<tr>
<td>Unicom / Multicom</td>
<td>47</td>
</tr>
<tr>
<td>Arriving at Unicom Airports</td>
<td>47</td>
</tr>
<tr>
<td>Departing Unicom Airports</td>
<td>48</td>
</tr>
<tr>
<td>Position Fix Request</td>
<td>48</td>
</tr>
<tr>
<td>Request Descent</td>
<td>49</td>
</tr>
<tr>
<td>Resume Own Navigation</td>
<td>49</td>
</tr>
<tr>
<td><strong>VoxATC Panel</strong></td>
<td>50</td>
</tr>
<tr>
<td>Recent Communications</td>
<td>51</td>
</tr>
<tr>
<td><strong>VoxATC Settings</strong></td>
<td>52</td>
</tr>
<tr>
<td>Call-Sign Types</td>
<td>52</td>
</tr>
<tr>
<td>Traffic Density</td>
<td>52</td>
</tr>
<tr>
<td>Setting Prompt Text Colors</td>
<td>53</td>
</tr>
<tr>
<td>Setting The Prompt Text Font</td>
<td>53</td>
</tr>
<tr>
<td>Call-signs and Frequencies</td>
<td>53</td>
</tr>
<tr>
<td>Emergencies</td>
<td>53</td>
</tr>
<tr>
<td>First Officer Available</td>
<td>54</td>
</tr>
<tr>
<td>Enroute Hold</td>
<td>54</td>
</tr>
<tr>
<td>Enroute Traffic Instructions</td>
<td>54</td>
</tr>
<tr>
<td>Helicopter Operations</td>
<td>55</td>
</tr>
<tr>
<td><strong>VoxATC Indexer</strong></td>
<td>56</td>
</tr>
<tr>
<td>Flight Plan Trainer</td>
<td>56</td>
</tr>
<tr>
<td><strong>SIDs &amp; STARs</strong></td>
<td>58</td>
</tr>
<tr>
<td>Getting the SID/STAR Data</td>
<td>58</td>
</tr>
<tr>
<td>Setting Up</td>
<td>58</td>
</tr>
<tr>
<td>Flight Planning and SIDs and STARs</td>
<td>58</td>
</tr>
<tr>
<td>ATC Instructions</td>
<td>59</td>
</tr>
<tr>
<td>Setting up a Custom SID and/or STAR</td>
<td>60</td>
</tr>
<tr>
<td>Adding a SID</td>
<td>61</td>
</tr>
<tr>
<td>Adding a STAR</td>
<td>61</td>
</tr>
<tr>
<td>Finishing the SID STAR set up</td>
<td>61</td>
</tr>
<tr>
<td>Editing a previously saved flight</td>
<td>62</td>
</tr>
<tr>
<td><strong>Setting up Joystick Buttons &amp; Keyboard Keys</strong></td>
<td>63</td>
</tr>
<tr>
<td><strong>Setting up the Voices VoxATC will use</strong></td>
<td>65</td>
</tr>
<tr>
<td>Assignments</td>
<td>65</td>
</tr>
<tr>
<td>Settings</td>
<td>66</td>
</tr>
<tr>
<td><strong>VoxATC Panel Setup</strong></td>
<td>67</td>
</tr>
<tr>
<td><strong>Finding your way to the takeoff runway or parking at your destination</strong></td>
<td>68</td>
</tr>
<tr>
<td>Taxi Route Indicated By Green Lights</td>
<td>69</td>
</tr>
<tr>
<td>Taxiway Centre Light Remover</td>
<td>70</td>
</tr>
<tr>
<td><strong>Handing Over Communications to the First Officer</strong></td>
<td>70</td>
</tr>
<tr>
<td><strong>Advanced Settings</strong></td>
<td>73</td>
</tr>
<tr>
<td>NavData Folder</td>
<td>74</td>
</tr>
<tr>
<td>Taxi Route Lights</td>
<td>74</td>
</tr>
<tr>
<td>Process Priority</td>
<td>74</td>
</tr>
<tr>
<td>Process Affinity</td>
<td>74</td>
</tr>
<tr>
<td>Logging</td>
<td>74</td>
</tr>
<tr>
<td><strong>Procedure Pronunciation Editor</strong></td>
<td>75</td>
</tr>
</tbody>
</table>
Load Airport .......................................................................................................................................................... 75
Select Procedure .................................................................................................................................................... 76
Speaking the Procedure Name .............................................................................................................................. 76
Set Voice ............................................................................................................................................................... 76
Creating / Editing Substitutions ............................................................................................................................ 76
Save & Close ......................................................................................................................................................... 76

Runway Number Update ...................................................................................................................................... 77

Flight Plan Extras ................................................................................................................................................ 79
No Vectors to Approach ........................................................................................................................................ 79
Enroute Hold Waypoint Id ...................................................................................................................................... 80
Variations ............................................................................................................................................................... 80
Flight Plan to Alternate ......................................................................................................................................... 80

Flying in UK / European Airspace ...................................................................................................................... 81

Running VoxATC Over a Network .................................................................................................................... 82

Trouble Shooting ................................................................................................................................................ 84
No radio reception................................................................................................................................................ 84
No response from ATC .......................................................................................................................................... 84
ATC responds with 'Last aircraft say again'........................................................................................................ 84
ATC refuses requests ........................................................................................................................................... 84
Slow response or speech generation .................................................................................................................. 85
VoxATC prompts you to contact an enroute unit (center or approach) on start up but you are on the ground at your departure airport .................................................................................................................... 85
Introduction

VoxATC provides a simulated ATC environment for FSX or Prepar3D with integrated voice recognition. Now what you say does matter, the controllers will be listening to your requests and checking your read backs. All the chatter you hear is generated by intelligent agents that are either controllers or pilots currently in the airspace. VoxATC runs alongside the simulator and replaces its native ATC.

If you add new scenery or aircraft to the simulator you should run the VoxATC Indexer.

The version of VoxATC as installed is a demo and can only be used for 7 days.

For unrestricted use VoxATC must be registered (see Registration).
Getting Started

Obtain the correct installer for the flight simulator you have installed (VoxATC supports FSX, FSX SE, P3D V2 and P3D V3) and install. If you want to run VoxATC on a different computer to the simulator, install VoxATC Net Server on that computer but you will still need to install the correct version of VoxATC on the simulator computer.

To get the best performance from VoxATC, the computer speech settings should be setup as follows:

Go to the control panel and select Speech Recognition. On the left select ‘Advanced speech options’. Ensure that you have a US English speech recognition engine selected such as the 'Microsoft Speech Recognizer 8.0 for Windows (English - US) in Language. If you have not already set up the microphone for speech recognition, click on the 'Configure Microphone' button and follow the instructions the wizard gives.

The speech recognition system needs a certain amount of training to get used to your voice using standard ATC phraseology. Start The Flight Plan Trainer by clicking on the Windows Start button selecting 'All Programs-VoxATC X-Flight Plan Trainer'. First go through general training by clicking on the 'General Training' button and following the instructions given by the training wizard.

The Flight Plan Trainer can also be used for training for specific flight plans. Before you start, it is worthwhile running through one of the example flights. To do this click on the browse button and navigate to the Flight Simulator X Files (or Prepar3D Files) folder in your 'My Documents Folder' and select either 'IFR Kansas City Intl to Eppley.FLT' or 'VFR Kansas City to Eppley.FLT'. After a flight file has been selected the Flight Plan Training' button will be enabled. Click on the Flight Plan Training' button and follow the instructions given by the training wizard (for more information see Flight Plan Trainer).

If you have a serial number or registration code you should register VoxATC now (see Registration).
You may want to set your own call sign or change other settings. To do this select Start - All Programs - VoxATC X - VoxATC Settings. The form below will be displayed.

You can set your call sign and **Call-Sign Type**, set **Enroute Hold**, **Traffic Density**, **Speech Volume**, **Average Speech Rate**, **Prompt Text Colors**, **First Officer Available** and **Prompt the Text Font**.

You are now ready for your first flight.

Start the flight simulator (ensure that the built in ATC has been disabled see **Simulator Settings**).
After installing VoxATC, the next time you FSX or FSX SE, it will display the following dialogs:

![Microsoft Flight Simulator® - Security Warning](image)

Click the Run button as this gauge file (VAGauge.GAU) is required by VoxATC.

![Would you like to designate this module as 'trusted' software?](image)

Click the 'Yes' button as VAGauge.GAU is required by the VoxATC Panel.

These dialogs are not displayed in P3D.

Ensure that you have created or loaded a flight that includes a flight plan (either VFR or IFR). If the [VoxATC Panel](#) is not being displayed, select Views - Instrument Panel – VoxATC from the main menu. In P3D 3.5 go to Vehicle – Instrument Panel – VoxATC. The [VoxATC Panel](#) will be displayed which gives information on what to do and say. You can display all the optional requests or reports that you can make at any stage of a flight, press the '0' (zero) key. This will display a list of options in the VoxATC Panel window.

**Example VFR Flight**

Using FSX, after start up choose 'Free Flight' from the left hand list and click on the Load button. Choose 'VoxATC Kansas City VFR' from the list displayed.
For Prepar3D V2 after start up, choose Flight from the main menu and select Load. From 'My Saved Flights’ select 'VoxATC  Kansas City VFR'.

For Prepar3D V3 after start up, select Scenario from the main menu And click Load. Select 'VoxATC  Kansas City VFR' from the list displayed.

The Prepar3D example uses a Mooney rather than a Cessna, so the call sign prefix will be ‘mooney’.

You will be positioned on the general aviation ramp at Kansas City International Airport with a flight plan to Eppley (Omaha).

If the VoxATC Panel is not displayed, select Views - Instrument Panel - VoxATC. In P3D 3.5 go to Vehicle – Instrument Panel – VoxATC.

The VoxATC Panel will guide you by telling when to tune the com1 radio and exactly what to say at any time.

Click on the button labelled 'Enable' in the top left hand corner of the VoxATC Panel. and VoxATC will initialize

Tune the com1 radio to the ATIS (Automatic Terminal Information Service) frequency, at Kansas City International the ATIS frequency is 128.35.

The recorded ATIS message gives various weather details, the altimeter setting, the current runway in use and a phonetic code letter. It is important to note the current ATIS code (announced as "Information" within the ATIS message) as you will use this when contacting ATC units at Kansas City International. Also set your altimeter to the setting given.

As you will be flying out of a Class B airport the first ATC contact is Clearance Delivery to obtain departure instructions. This will require you to use your call-sign for the first time (see Call-signs). While using the VFR example situation, your call-sign is cessna one one five one delta.

Tune the com radio to 135.7 and make Initial Contact with the clearance controller.

You require departure instructions to depart north to Eppley at five thousand feet (see Departure Instructions Request).

To do this listen a while on the frequency to ensure that no one is currently speaking, key the Microphone (press the space bar) and say

"International Clearance cessna one one five one delta will depart north for Eppley at five thousand"

And unkey the mike (release the spacebar).

It is important to remember to key the mike before saying anything, or an embarrassing silence will ensue.
The convention used from now on will be what you say will be in **bold** the reply from the controller in *italics*.

Now listen carefully here come your departure instructions to be complied with after takeoff

*International Clearance - cessna one one five one delta cleared to enter bravo airspace after departure fly heading zero eight five climb and maintain three thousand squawk three zero one three*

The clearance given contains the heading and height to be flown after departure and the **Transponder Setting** or **Squawk** code.

Read back the clearance as given

**You - cessna one one five one delta cleared to enter bravo airspace after departure fly heading zero eight five climb and maintain four thousand squawk three zero one three**

The exact heading height and transponder code given may vary from the example above.

If all the elements of your read back are correct the controller will respond with

*International Clearance - cessna one one five one delta read back correct*

Acknowledge this with your call sign

**You - cessna one one five one delta**

Otherwise the controller will repeat any parts of the instructions not read back or read back incorrectly. These then be repeated correctly.

Should you need the instructions repeated say

**You - cessna one one five one delta say again**

and the instructions will be repeated. Say again can be used at any time to get controllers to repeat the last message that has yet to be read back or acknowledged.

Set the transponder code as given.

You are now ready to taxi. Set the comm1 radio to the Kansas City Ground frequency 121.65

When the frequency is clear establish contact and make a **Taxi Request**

**You - International Ground cessna one one five one delta at gate golf seven with information bravo ready taxi with clearance**

*International Ground - cessna five one delta taxi to runway one niner right left via delta and mike and golf and alpha*
Read this back and start taxiing to runway zero one left using taxiways bravo and alpha. See Finding your way to the takeoff runway or parking at your destination if you need help navigating to the runway.

You - taxi to runway one niner right left via delta and mike and golf and alpha cessna five one delta

Now its time to get the FSS (Flight Service Station) to open your flight plan.

Call ground and make a Temporary Frequency Change Request.

You - cessna five one delta request temporary change to Columbia radio one two two point two

International Ground - cessna five one delta report back on frequency

You - cessna five one delta

Tune comm1 to 122.1 and make contact with the FSS (Initial Contact FSS).

You - Columbia radio cessna one five one delta one two two point one Kansas City International

Columbia radio - cessna one five one delta Columbia radio go ahead

Request that your flight plan is opened at the time in UTC that you estimate you will be taking off see Opening / Closing Flight Plans with an FSS (the time will almost certainly be different from that shown below).

You - cessna one five one delta request you open my flight plan to Eppley at one zero two zero zulu

Columbia radio - cessna one five one delta will open your flight plan to Eppley at one zero two zero zulu

You - cessna one five one delta

Retune to International ground (121.65) and report back on frequency

You- cessna five one delta back on frequency

International Ground - cessna five one delta roger

Taxi out to the runway hold.

As you approach the holding point for runway zero one left you will be issued with a Contact Instruction by the Ground controller.

International Ground - cessna five one delta contact International Tower one two five point seven five
You - one two five point seven five cessna five one delta

Tune the Comm1 radio to 125.75

After your pre-takeoff checks select the tower frequency and when there is a pause in the exchanges make your Takeoff Request

You - International Tower cessna one one five one delta ready for takeoff

If the runway is not available, the tower controller will issue a Hold Position Instruction, otherwise you will cleared for takeoff.

International Tower - cessna five one delta wind one eight zero at one zero cleared takeoff

You - cleared takeoff cessna five one delta

After takeoff follow the departure instructions (see above).

When you are approximately 5 miles from the airport the Tower will hand you over to Kansas City Departure

International Tower - cessna five one delta contact Kansas City Departure one two four point seven

You - one two four point seven cessna five one delta

Set the comm1 radio frequency to 124.7 and make an Initial Contact After Handover.

You - Kansas City Departure cessna five one delta with you at two thousand

(give your present altitude)

Kansas City Departure - cessna five one delta roger

From now on until the radar service is terminated you must listen out for Heading Instructions and Altitude Instructions addressed to you.

Example:

Departure - cessna five one delta turn left heading one three zero climb and maintain four thousand

You - turn left heading one three zero climb and maintain four thousand cessna five one delta

On reaching the limit of radar coverage, Departure will terminate the radar service and approve a change of frequency.

Departure - cessna five one delta radar service terminated squawk one two zero zero frequency change approved
You - one two zero zero cessna five one delta

Set the transponder to 1200.

During the enroute stage of the flight you will want to request flight following from the Air Route Traffic Control Centers (see Center).

Tune comm1 to Minneapolis Center 127.9 and make Initial Contact

You - Minneapolis Center cessna one one five one delta

Minneapolis Center - cessna one one five one delta Kansas City Center go ahead

You need to provide three things at this point:

A Position Report for your current location

Your destination

Your request (Request Traffic Advisories)

You - cessna one one five one delta one zero miles south Saint Joseph at four thousand vfr to Eppley request traffic advisories

Minneapolis Center - cessna one one five one delta squawk four zero six six and ident remain clear

You - four zero six six cessna one one five one delta

Set the transponder to 4066 and press the ident key ('I' on the keyboard).

The actual transponder code may vary from the example above.

Once Center has seen you ident they will come back with

Minneapolis Center - cessna one one five one delta radar contact altimeter two niner niner six

read back the altimeter setting (see Altimeter Setting)

You - altimeter two niner niner six cessna five one delta

When enroute you may then receive a Traffic Advisory or two

Minneapolis Center - cessna five one delta traffic one o'clock 3 miles four thousand southbound

You - roger cessna five one delta

Enroute you may be given a Contact Instruction. As you move out of range of one transmitter you will have to retune to a closer one on a different frequency. Although the center may be the same, after tuning to the new frequency you should recontact the controller.
Minneapolis Center - cessna five one delta contact Minneapolis Center one two five point six five
read back the frequency

You - one two five point six five cessna five one delta

Tune the comm1 radio to 125.65 and make an Initial Contact After Handover.

You - Minneapolis Center cessna five one delta with you at five thousand

Minneapolis Center - cessna five one delta roger altimeter two niner niner niner

You - altimeter two niner niner niner cessna five one delta

As you approach within 30 miles of Eppley its time to contact the Approach unit of Eppley's class C airspace. First make a Frequency Change Request.

You - cessna five one delta request frequency change to Omaha Approach one two four point five

Minneapolis Center - cessna five one delta squawk one two zero zero frequency change approved

You - one two zero zero cessna five one delta

Set the transponder to 1200.

Before contacting Omaha Approach you must listen to the ATIS for Eppley.

Select the Eppley ATIS frequency (120.4) and listen to the recorded announcement

Select the Omaha Approach frequency (120.1) and make Initial Contact

You - Omaha Approach cessna one one five one delta

Approach - cessna one one five one delta Omaha Approach go ahead

You need to provide three things at this point:

A Position Report for your current location

The ATIS code

An indication of your intentions (Approach Requests)

You - cessna one one five one delta two four miles south Eppley at four thousand with information charlie landing Eppley

Omaha Approach - cessna one one five one delta squawk three zero four six and ident

You - three zero four six cessna one one five one delta
Set the transponder to 3046 and press the ident key (‘I’ on the keyboard).

The actual transponder code may vary from the example above.

Once Approach has seen you ident they will come back with

Omaha Approach - cessna one one five one delta radar contact report airfield in sight

You - cessna five one delta

Continue toward Eppley airport until

Omaha Approach - cessna five one delta contact Omaha Tower one three two point one

You - one three two point one cessna five one delta

Select the tower frequency (132.1) and call the tower

You - Omaha Tower cessna one one five one delta with you at two thousand niner hundred

(give your present altitude)

The tower will come back with your Pattern Entry Instructions.

Omaha Tower - cessna five one delta enter left base runway three two

You - enter left base runway three two cessna five one delta

Enter the Eppley pattern as instructed. Within two miles of the runway threshold you should receive your Landing Clearance

Omaha Tower - cessna five one delta cleared to land runway one eight

You - cleared to land runway one eight cessna five one delta

If you don't receive a landing clearance you may have to go around (left pattern)

You - cessna five one delta going around

Omaha Tower - cessna five one delta roger

After landing you will be told to vacate the runway

Omaha Tower - cessna five one delta turn right any intersection

You - cessna five one delta

After you vacate the runway the Tower will hand you off to ground

Omaha Tower - cessna five one delta contact Omaha Ground one two one point niner
You - one two one point niner cessna one five delta

Select the ground frequency (121.9)

You - Omaha Ground cessna one one five one delta request taxi instructions

Omaha Ground - cessna five one delta taxi to taxi to park niner via lima and bravo and alpha and kilo

You - taxi to park niner via lima and bravo and alpha and kilo cessna five one delta

And close the flight plan

You - cessna five one delta request temporary frequency change to Columbia radio one two two point three five

Omaha Ground - cessna five one delta report back on frequency

You - cessna five one delta

Tune comm1 to 122.2

You - Columbia radio cessna one one five one delta one two two point three five Eppley

Columbia radio - cessna one one five one delta Columbia radio go ahead

You - cessna one one five one delta request you close my flight plan from Kansas City International at one one two zero zulu

Columbia radio - cessna one one five one delta will close your flight plan from Kansas City International at one one two zero zulu

You - cessna one one five one delta

Retune to ground (121.9)

You - cessna five one delta back on frequency

Omaha Ground - cessna five one delta roger

Taxi back to the ramp head held high your flight complete. See Finding your way to the takeoff runway or parking at your destination if you need help navigating to the assigned parking.

Example IFR Flight

If using FSX, after starting choose 'Free Flight' from the left hand list and click on the Load button. Choose "VoxATC Kansas City IFR" from the list displayed.
For Prepar3D V2 after start up, choose Flight from the main menu and select Load. From ‘My Saved Flights’ select 'VoxATC Kansas City VFR'.

For Prepar3D V3 after start up, select Scenario from the main menu and click Load. Select 'VoxATC Kansas City VFR' from the list displayed.

This flight uses a Beech rather than a Lear jet in P3D. The call sign prefix is ‘beech’.

You will be positioned on the general aviation ramp at Kansas City International Airport with a flight plan to Eppley (Omaha).

If the VoxATC Panel is not displayed, select Views - Instrument Panel - VoxATC.

The VoxATC Panel will guide you by telling when to tune the comm1 radio and exactly what to say at any time.

Click on the button labelled 'Enable’ in the top left hand corner of the VoxATC Panel. and VoxATC will initialize

Tune the comm1 radio to the ATIS (Automatic Terminal Information Service) frequency, at Kansas City International the ATIS frequency is 128.35.

The recorded ATIS message gives various weather details, the altimeter setting, the current runway in use and a phonetic code letter. It is important to note the current ATIS code (announced as "Information" within the ATIS message) as you will use this when contacting ATC units at Kansas City International. Also set your altimeter to the setting given.

Contact delivery to obtain the departure clearance.

Tune the com radio to 135.7 and make Initial Contact with the clearance controller.

To do this listen a while on the frequency to ensure that no one is currently speaking, key the Microphone (press the space bar) and say

"International Clearance cessna one one five one delta"

and unkey the mike (release the spacebar).

It is important to remember to key the mike before saying anything, or an embarrassing silence will ensue.

The controller will come back with "cessna one one five one delta International Clearance go ahead".

From now on is what you say will be in **bold** the reply from the controller in *italics*.

You should now make a Departure Clearance Request

**You - cessna one one five one delta ready for clearance Eppley**
You should be ready to note down the key points of the Departure Clearance

**International Clearance - cessna one one five one delta cleared to Eppley Airport as filed maintain three thousand squawk three zero one three**

Should you need the clearance repeated say **cessna one one five one delta say again**

**You - cessna one one five one delta is cleared to Eppley Airport as filed maintain four thousand three zero one three**

**International Clearance - cessna one one five one delta read back correct**

**You - cessna one one five one delta**

You are now ready to taxi. Set the comm1 radio to the Kansas City Ground frequency 121.65

When the frequency is clear establish contact and make a **Taxi Request**

**You - International Ground cessna one one five one delta at gate golf one zero with information bravo ready taxi with clearance**

**International Ground - cessna five one delta taxi to runway one niner right via delta and mike and golf and alpha**

Read this back and start taxiing to runway zero one left using taxiways bravo and alpha. See **Finding your way to the takeoff runway or parking at your destination** if you need help navigating to the runway.

**You - taxi to runway one niner right via delta and mike and golf and alpha cessna five one delta**

Taxi out to the runway hold.

As you approach the holding point for runway zero one left you will be issued with a **Contact Instruction** by the Ground controller.

**International Ground - cessna five one delta contact International Tower one two five point seven five**

**You - one two five point seven five cessna five one delta**

After your pre-takeoff checks select the tower (125.75) frequency and when the frequency is clear make your **Takeoff Request**

**You - International Tower cessna five one delta ready for takeoff**

If the runway is not available, the tower controller will issue a **Hold Position Instruction**, otherwise you will cleared for takeoff.
International Tower - cessna five one delta after departure turn left heading zero niner zero wind one eight seven at one zero cleared takeoff

You - after departure turn left heading zero niner zero cleared takeoff cessna five one delta

After takeoff follow the departure instructions and clearance (see above).

When you are approximately 5 miles from the airport the Tower will hand you over to Kansas City Departure

International Tower - cessna five one delta contact Kansas City Departure one two four point seven

You - one two four point seven cessna five one delta

Set the comm1 radio frequency to 124.7 and make an Initial Contact After Handover.

You - Kansas City Departure cessna five one delta with you leaving two thousand climbing three thousand

(give your present altitude)

Kansas City Departure - cessna five one delta roger

From now on until you are handed off to center you must listen out for Heading Instructions and Altitude Instructions addressed to you.

Example:

Departure - cessna five one delta turn left heading one three zero climb and maintain four thousand

You - turn left heading one three zero climb and maintain four thousand cessna five one delta

As you approach the limits of the Kansas City International class B airspace you will instructed to climb to your filed enroute altitude, to Proceed Direct to Saint Joseph and handed over to Minneapolis City Center

Kansas City Departure - cessna five one delta climb and maintain six thousand proceed direct saint joseph contact Minneapolis Center one one niner point six

You - leaving five thousand climbing six thousand one one niner point six cessna five one delta

Set the comm1 radio frequency to 127.9 and make an Initial Contact After Handover.

You - Minneapolis Center cessna five one delta with you leaving six thousand climbing seven thousand
Minneapolis Center - cessna five one delta roger altimeter two niner niner six

You - altimeter two niner niner six

While you are enroute you may be instructed to contact the center controller on a different frequency. Read back the new frequency, tune to the new frequency and make Initial Contact After Handover.

As you approach Eppley the center controller will instruct you to descend

Minneapolis Center - cessna one five delta descend and maintain five thousand

You - leaving seven thousand descending five thousand cessna five one delta

You will then be handed over to Omaha approach

Minneapolis Center - cessna five one delta contact Omaha Approach one two four point five

You - one two four point five cessna five one delta

Tune the comm1 radio to 124.5 and make an Initial Contact After Handover.

You - Omaha Approach cessna five one delta with you at five thousand

Approach will reply with initial Heading Instructions, Altitude Instructions the Instrument Approach Procedure and Altimeter Setting.

Omaha Approach - cessna five one delta fly heading three four zero descend and maintain two thousand eight hundred expect vectors to I L S runway one eight approach Eppley altimeter two niner niner two

You - fly heading three four zero descend and maintain two thousand eight hundred altimeter two niner niner two cessna five one delta

You will receive further Heading Instructions and Altitude Instructions until you are ready to establish yourself on the localizer when you will receive an Approach Clearance

Omaha Approach - cessna five one delta maintain two thousand eight hundred until established on localizer cleared for I L S runway one eight approach monitor Omaha Tower one three two point one

You - maintain two thousand eight hundred cleared for I L S runway one eight approach one three two point one cessna five one delta

You have been issued a Monitor Instruction so just tune to the tower frequency and listen, no contact is required.

Tune to Omaha Tower 132.1

You should soon be cleared to land
Omaha Tower - cessna five one delta cleared to land runway one eight wind one eight seven at one zero

You - cleared to land runway one four right cessna five one delta

If you do not receive a landing clearance before your decision height or if for any reason you need to abandon the approach see the last part of this flight example.

After landing you will be told to vacate the runway

Omaha Tower - cessna five one delta turn right any intersection

You - cessna five one delta

After vacating Tower will hand you off to ground

Omaha Tower - cessna five one delta contact Omaha Ground one two one point niner

You - one two one point niner cessna one five delta

Select the ground frequency (121.9)

You - Omaha Ground cessna five one delta request taxi instructions

Omaha Ground - cessna five one delta taxi to park niner via golf cessna five one delta

You - Taxi to park niner via golf cessna five one delta

Taxi back to the ramp your flight is complete

If you need to abort the landing declare a Missed Approach

You- cessna five one delta missed approach I L S runway one four right

Omaha Tower - cessna five one delta fly published missed

Fly the publish missed approach and comply with any other instructions the tower issues

You will be told to contact Approach, when checking in request another approach

Omaha Tower - cessna five one delta contact Omaha Approach one two four point five

You - one two four point five cessna five one delta

after tuning to 124.5

You - Omaha Approach cessna five one delta with you at two thousand request another approach
Omaha Approach - cessna five one delta roger fly heading three three zero climb and maintain three thousand expect vectors to I L S runway one four right approach

You - fly heading three three zero leaving two thousand climbing three thousand cessna five one delta

Continue with the arrival as above.

Example IFR with a SID and STAR

Having started up Flight Simulator select Select Flights from the Flights menu. Choose 'VoxATC Kansas City to Minneapolis St Paul Intl IFR' from the list of 'My Saved Flights'. You will be positioned on the general aviation ramp at Kansas City International Airport with a flight plan to Minneapolis St-Paul International.

For Prepar3D V2 after start up, choose Flight from the main menu and select Load. From ‘My Saved Flights’ 'VoxATC Kansas City to Minneapolis St Paul Intl IFR'. This flight uses a Beech rather than a Lear jet. The call sign prefix is ‘beech’.

For Prepar3D V3 after start up, choose Scenario from the main menu and select Load. From the list select 'VoxATC Kansas City to Minneapolis St Paul Intl IFR'. This flight uses a Beech rather than a Lear jet. The call sign prefix is ‘beech’.

Select VoxATC from the modules menu and check 'Enable VoxATC' and 'Display Prompt Window'. The VoxATC Panel will guide you by telling when to tune the comm1 radio and exactly what to say at any time. Click the OK button.

Tune the comm1 radio to the ATIS (Automatic Terminal Information Service) frequency, at Kansas City International the ATIS frequency is 128.35.

The recorded ATIS message gives various weather details, the altimeter setting, the current runway in use and a phonetic code letter. It is important to note the current ATIS code (announced as "Information" within the ATIS message) as you will use this when contacting ATC units at Kansas City International. Also set your altimeter to the setting given.

Contact delivery to obtain the departure clearance.

Tune the com radio to 135.7 and make Initial Contact with the clearance controller.

To do this listen a while on the frequency to ensure that no one is currently speaking, key the Microphone (press the space bar) and say

"International Clearance lear one one five one delta"

and unkey the mike (release the spacebar).

It is important to remember to key the mike before saying anything, or an embarrassing silence will ensue.
The controller will come back with "lear one one five one delta International Clearance go ahead".

From now on is what you say will be in **bold** the reply from the controller in *italics*.

You should now make a [Departure Clearance Request](#)

**You - lear one one five one delta ready for clearance minneapolis saint paul**

You should be ready to note down the key points of the [Departure Clearance](#)

*International Clearance - lear one one five one delta cleared to minneapolis saint paul international airport chief three departure saint joseph transition then as filed squawk three zero one three*

Should you need the clearance repeated say **lear one one five one delta say again**

**You - lear one one five one delta is cleared to minneapolis saint paul international airport chief three departure saint joseph transition then as filed three zero one three**

*International Clearance - lear one one five one delta read back correct*

**You - lear one one five one delta**

You are now ready to taxi. Set the comm1 radio to the Kansas City Ground frequency 121.65

When the frequency is clear establish contact and make a [Taxi Request](#)

**You - International Ground lear one one five one delta at gate golf one zero with information bravo ready taxi with clearance**

*International Ground - lear five one delta taxi to runway one niner right via delta and mike and golf and alpha*

Read this back and start taxiing to runway zero one left using taxiways bravo and alpha. See [Finding your way to the takeoff runway or parking at your destination](#) if you need help navigating to the runway.

**You - taxi to runway one niner right via delta and mike and golf and alpha lear five one delta**

Taxi out to the runway hold.

As you approach the holding point for runway zero one left you will be issued with a [Contact Instruction](#) by the Ground controller.

*International Ground - lear five one delta contact International Tower one two five point seven five*

**You - one two five point seven five lear five one delta**
After your pre-takeoff checks select the tower (125.75) frequency and when the frequency is clear make your Takeoff Request

**You - International Tower lear five one delta ready for takeoff**

If the runway is not available, the tower controller will issue a Hold Position Instruction, otherwise you will be cleared for takeoff.

*International Tower - lear five one delta wind one eight seven at one zero cleared takeoff*

**You - cleared takeoff lear five one delta**

After takeoff fly the chief three departure saint joseph transition and climb to eight thousand. If you don't have the plates proceed to the Saint Joseph VOR at 8000.

When you are approximately 5 miles from the airport the Tower will hand you over to Kansas City Departure

*International Tower - lear five one delta contact Kansas City Departure one two four point seven*

**You - one two four point seven lear five one delta**

Set the comm1 radio frequency to 124.7 and make an Initial Contact After Handover.

**You - Kansas City Departure lear five one delta with you at two thousand**

(give your present altitude)

*Kansas City Departure - lear five one delta roger*

As you approach the limits of the Kansas City International class B airspace you will be handed over to Minneapolis City Center

*Kansas City Departure - lear five one delta contact Minneapolis Center one one niner point six*

**You - one one niner point six lear five one delta**

Set the comm1 radio frequency to 127.9 and make an Initial Contact After Handover.

**You - Minneapolis Center lear five one delta with you at eight thousand**

*Minneapolis Center - lear five one delta roger altimeter two niner niner six*

**You - altimeter two niner niner six**

As you approach the end of the departure (Saint Joseph VOR) you will be stepped up toward your cruise altitude.

*Minneapolis Center - lear five one delta climb and maintain one two thousand*
You - climb and maintain one two thousand lear five one delta

While you are enroute you may be instructed to contact the center controller on a different frequency. Read back the new frequency, tune to the new frequency and make Initial Contact After Handover.

As you approach Eppley the center controller will instruct you to descend via the kasper two arrival mason city transition

*Minneapolis Center - lear one five delta descend via the kasper two arrival mason city transition*

You - descend via the kasper two arrival mason city transition lear five one delta

Plan your descent so that you arrive at the end point of the procedure (SLIKK) at 6000.

If you don't have the approach plate head for the SLIKK intersection

You will then be handed over to minneapolis approach

*Minneapolis Center - lear five one delta contact minneapolis approach one two five point zero*

You - one two five point zero lear five one delta

Tune the comm1 radio to 125.0 and make an Initial Contact After Handover.

You - minneapolis approach lear five one delta with you at five thousand

*Minneapolis approach - lear five one delta roger minneapolis saint paul international altimeter two niner niner two*

You - altimeter two niner niner two lear five one delta

Continue on the arrival procedure, as you approach SLIKK minneapolis approach will issue vectors to your final approach.

*Minneapolis Approach - lear five one delta fly heading one two zero descend and maintain three thousand expect vectors to I L S runway three zero left approach*

You - fly heading one two zero descend and maintain three thousand lear five one delta

You will receive further Heading Instructions and Altitude Instructions until you are ready to establish yourself on the localizer when you will receive an Approach Clearance

*Minneapolis Approach - lear five one delta maintain two thousand seven hundred until established on localizer cleared for I L S runway three zero left approach monitor minneapolis tower one one niner point niner seven*

You - maintain two thousand seven hundred cleared for I L S runway three zero left approach one one niner point niner seven lear five one delta
You have been issued a Monitor Instruction so just tune to the tower frequency and listen, no contact is required.

Tune to Minneapolis Tower 119.97

You should soon be cleared to land

Minneapolis Tower - lear five one delta cleared to land runway three zero left wind one eight seven at one zero

You - cleared to land runway three zero left lear five one delta

If you do not receive a landing clearance before your decision height or if for any reason you need to abandon the approach see the last part of this flight example.

After landing you will be told to vacate the runway

Minneapolis Tower - lear five one delta turn right any intersection

You - lear five one delta

After vacating Tower will hand you off to ground

Minneapolis Tower - lear five one delta contact minneapolis ground one two one point eight

You - one two one point eight lear five one delta

Select the ground frequency (121.8)

You - minneapolis ground lear five one delta request taxi instructions

Minneapolis Ground - lear five one delta taxi to gate charlie eight via alpha and charlie and papa

You - taxi to gate charlie eight via alpha and charlie and papa lear five one delta

Taxi back to the ramp your flight is complete

If you need to abort the landing declare a Missed Approach

You- lear five one delta missed approach I L S runway one four right

Minneapolis Tower - lear five one delta fly published missed

Fly the publish missed approach and comply with any other instructions the tower issues

You will be told to contact Approach, when checking in request another approach

Minneapolis Tower - lear five one delta contact Minneapolis Approach one two five point zero

You - one two five point zero lear five one delta
after tuning to 125.0

You - Minneapolis Approach lear five one delta with you at two thousand request another approach

Minneapolis Approach - lear five one delta roger fly heading three three zero climb and maintain three thousand expect vectors to I L S runway three zero left approach

You - fly heading three three zero leaving two thousand climbing three thousand lear five one delta

Continue with the arrival as above.
Creating Flights For VoxATC

Start FSX and select Free Flight from the menu list on the left. Click on the flight planner button and create and save the flight plan. Setup the weather, aircraft etc and then save the flight. Click the fly now button and start the flight. Set the VoxATC options and then enable VoxATC.

Always ensure that VoxATC is not enabled before ending or resetting a flight or loading a different one.

Starting Enroute

If you start VoxATC with the aircraft further than 6 nm from the flight plan departure airport, VoxATC will assume you are enroute. This is useful if you want to start a flight somewhere along your planned route or if you want to practice arrivals and approaches.

After starting VoxATC you will be prompted to tune to and contact an enroute facility (Approach or Center). After making contact the flight plan may be continued as if started from the departure airport.

Registration

To obtain a registration code or to enter a serial number or registration code to register VoxATC, go to VoxATC on the start menu and select 'Register VoxATC'.
Click on 'Get Registration Code' to obtain a code to register VoxATC. Internet Explorer will be started and a web page loaded which will enable you to get a registration code.

Once you have a serial number or registration code, enter it into the text box and click register. If the code or number is valid, a message box will confirm that VoxATC is now registered.

**Option Menus**

While running VoxATC you can display the current options for the stage of your flight by pressing the 0 'zero' key on your keyboard. This will display a numbered list in the VoxATC Panel. You can make a selection by keying the number of the item (1 is always cancel). A menu may have several pages of options so the first and last items select the previous or next menu page as appropriate. Not all stages of the flight have menus available. Currently there are three menus:

**Taxi Menu**

After receiving taxi instructions the taxi options menu can be displayed. This displays options to request taxi to any of the runways available at your current airport.

**Enroute Menu (IFR)**

During the enroute phase of your IFR flight the IFR Enroute Menu is available. This contains options for; Altitude Change Requests, Emergencies, Weather Avoidance Request and Request Descent.

**Enroute Menu (VFR)**

While flying enroute VFR, the VFR Enroute Menu is available. This contains options to make a Position Fix Request with and without a bearing to your destination.

**Arrival Menu**

When being vectored to an approach or after being cleared for a non-vectored approach the Arrival Options Menu is available. From this you can select to request any of the approaches available at the destination airport.
Simulator Settings

For best results the built in ATC and aircraft traffic should be disabled.

For FSX, after loading click on the 'Settings' item on the left hand menu. Click the General button and ensure 'Show ATC text' is unchecked, Click the Sound button and ensure that the Voice box is unchecked. Click the 'Customize...' button in Display Settings. Click on the 'Traffic' tab and set Airline and General Aviation traffic to 0 %.

For Prepar3D, select Options – Settings – General from the menu. Ensure all Air Traffic Control options are unchecked. Select Sound on the left and ensure that the Voice box is unchecked. Select Display and then Traffic and set Airline and General Aviation traffic to 0 %. Show aircraft labels should be unchecked.
Setting up Speech Recognition

Before using VoxATC you should set up the microphone you will be using and initially train the recognition engine to recognize your voice if you have not done so already. Select the Speech icon from the control panel and then ‘Advanced Speech Options’ on the left.

Ensure that the English-US recognizer is selected in language.

Select a suitable profile. If there is no suitable profile for you, click the ‘new’ button and create one. Then click on the Train Profile button and run through as many of the training scripts as you have time for.
VoxATC Reference

Call-Signs

Each aircraft and each air traffic control unit has its own call sign. Examples of aircraft control signs are cherokee one niner five six delta (N1956D) and cessna one two tree six bravo (N1236B). In these cases the call-signs are formed from the aircraft registration substituting a type designation for the N prefix. Call-signs may be shortened to the type, the last two digits or letters, cessna one one five one delta becoming cessna five one delta. A controller may shorten an aircraft call-sign after initial contact has been established. You should only use your shortened call-sign after the controller. Air traffic control unit call-signs are formed from their location and designated function (Minneapolis Ground, Omaha Tower, Kansas City Approach being examples).

Commercial operators may assign a call-sign containing a prefix and a number such as american218 or united316.

ATC call-signs may be shortened to the type of unit you are calling, thus 'international ground' becomes 'ground' or omaha approach becomes 'approach'. If you are having recognition problems you could try doing this (see Trouble Shooting).

Initial Contact

When first making contact with an ATC unit that you have not been handed over to you should do the following:

Select the frequency of the ATC unit.

Listen to ensure that no existing exchange is ongoing between the controller and an aircraft, wait for a suitable pause.

Make the first call (ATC unit call-sign followed by your call-sign)

Kansas City Approach cessna one one five one delta

After a short pause you should hear either of the following:

cessna one one five one delta Kansas City Approach go ahead. In this case continue with your report/request.

or

cessna one one five one delta Kansas City Approach standby. In this case wait and say nothing further until you are called back, the controller is busy with another aircraft.
Contact Instruction

Different ATC units have different areas of responsibility both functionally and geographically. When passing an aircraft on to another unit a controller is said to perform a handover. When this is done the aircraft is told to contact the new unit.

contact <call-sign> <frequency>

the frequency should be read back

Example

cessna five one delta contact international tower one two eight point two

one two eight point two cessna five one delta

The aircraft details are also passed to the new unit and thus do not have to be given on initial contact. See Initial Contact After Handover.

Monitor Instruction

Similar to a Contact Instruction except that no check in is required from you. Just tune and listen

monitor <call-sign> <frequency>

The frequency should be read back

Example:

cessna five one delta monitor Omaha Tower one three two point one

one three two point one cessna five one delta

Initial Contact After Handover

After an in flight handover it is unnecessary to pass you full details all that is required is

<ATC unit call-sign> <aircraft call-sign> with you at <altitude>

Example:

Kansas City Departure cessna five one delta with you at two thousand

cessna five one delta roger
Traffic Advisory

These are issued by center controllers and have the following format

<aircraft call-sign> traffic <clock direction> <distance> <altitude> <heading>

they should be acknowledged with 'roger'.

Example:

cessna five one delta traffic eleven o'clock 3 miles five thousand southbound

roger cessna five one delta

Altitude Instructions

Issued by Approach, Tower, Departure or Center. They should be complied with immediately and read back in full.

climb and maintain <altitude>

descend and maintain <altitude>

the read backs can have the following formats -

leaving <present altitude> climbing <assigned altitude>

leaving <present altitude> descending <assigned altitude>

Examples:

cessna five one delta descend and maintain two thousand

leaving four thousand descending two thousand cessna five one delta

cessna five one delta climb and maintain four thousand

leaving two thousand climbing four thousand cessna five one delta
Heading Instructions

Issued by Approach, Tower, Departure or Center. They should be complied with immediately and read back in full.

fly heading <digit> <digit> <digit>

turn right heading <digit> <digit> <digit>

turn left heading <digit> <digit> <digit>

Example:

cessna five one delta turn left heading one one zero

turn left heading one one zero cessna five one delta

Altimeter Setting

The current local altimeter setting is provided by ATC when required, and should be read back.

altimeter <digit> <digit> <digit> <digit>

Example:

cessna five one delta radar contact altimeter two niner niner six

altimeter two niner niner six cessna five one delta

Hold Position Instruction

Issued by the tower controller in response to a takeoff request when the active runway is currently in use. Requires read-back.

Comply with this instruction by staying where you are and waiting for the controller to call you back.

Example:

cessna five one delta ready for takeoff

cessna five one delta hold position

hold position cessna five one delta
**Frequency Change Request**

When you are currently being serviced by an ATC unit you must request a frequency change before leaving your current frequency unless instructed to do so. A frequency change request has the following format

\(<\text{aircraft call-sign}> \text{ request frequency change to } \langle\text{ATC unit call-sign}> \langle\text{frequency}\rangle\)

Wait and acknowledge the approval before changing frequency.

Example:

*cessna five one delta request frequency change to Kansas City Approach one one niner point zero*

*cessna five one delta frequency change approved*

*cessna five one delta*

**Temporary Frequency Change Request**

When you are in contact with an ATC unit and wish to change frequencies temporarily (to listen to an ATIS broadcast or to talk to an FSS) you must make the following request.

\(<\text{call-sign}> \text{ request temporary change to } \langle\text{call-sign}> \langle\text{frequency}\rangle\)

Example:

*cessna five one delta request temporary change to Columbia radio one two two point zero*

*cessna five one delta report back on frequency*

*cessna five one delta*

When you return to the frequency report in as below

\(<\text{call-sign}> \text{ back on frequency}\)

Example:

*cessna five one delta back on frequency*

*cessna five one delta roger*
**Position Report**

A position report has the following format

\(<\text{digits}>\) miles \(<\text{direction}>\) \(<\text{location}>\) at \(<\text{altitude}>\)

or

\(<\text{airport}>\) off at \(<\text{altitude}>\)

The locations given must be one of those recognized by VoxATC (a named airport or navaid).

Examples:

cessna one one five one delta one six miles southwest Mason City at four thousand five hundred

cessna one one five one delta off Kansas City Downtown at two thousand

**Transponder Setting**

The transponder aids the identification of an aircraft on a controller's radar display. Each aircraft being controlled within an airspace is assigned a code to set the transponder to. This code is detected by the ATC radar. An aircraft is instructed by ATC to 'squawk' that code. The transponder has five modes selected by the knob on the right. OFF, STBY and TEST are modes in which the transponder is inactive, when ON the transponder's code setting will be detected by the ATC radar and when in ALT mode the aircraft's altitude will also be displayed on the controller's radar display. The IDENT key is used to highlight the aircraft's position on the controller's display.

The transponder in the simulator has no mode selection so the transponder is set by default to be in the ALT position. Also there is no IDENT. When running VoxATC IDENT is activated by pressing the 'I' key.
Squawk

This is an instruction to change the Transponder Setting, it has the form

squawk <digit> <digit> <digit> <digit>

It should be read back as given or just the four digits

Example

cessna five one delta squawk four seven one one

four seven one one cessna five one delta

Proceed Direct

This instruction is given when ATC wants you to go directly to a given waypoint

proceed direct <location>

it should be read back

Example:

cessna five one delta proceed direct Saint Joseph

proceed direct Saint Joseph cessna five one delta

Upon reaching the waypoint you should resume your own navigation from that waypoint (fly your flight plan).

ATIS

Automatic Terminal Information Service, a recorded announcement on its own dedicated frequency which provides weather, arrival and departure information. The recording is updated at regular intervals, each recording being assigned a phonetic letter identifier (e.g. information bravo) which is used to indicate to ATC which announcement you have heard.

Clearance Delivery

ATC unit at class B and C airports from which clearances may be obtained for an IFR flight or departure instructions for a VFR flight.
**Departure Clearance Request**

Request for a departure clearance, has the following form

<call-sign> request departure clearance <airport>

Example:

cessna one one five one delta request departure clearance Eppley

**Departure Instructions Request**

A request made to clearance delivery when departing VFR from a class B or C airport it has the form

<call-sign> will depart <direction> for <location> at <altitude>

Example:

cessna one one five one delta will depart north for Eppley at six thousand

The locations given must be one of those recognized by VoxATC (any named airport or navaid).

**Departure Clearance**

An IFR departure clearance has the following form and should be read back in full.

<call-sign> cleared to <location> [<Standard Instrument Departure name> <transition name> then] [cleared] as filed maintain <altitude> squawk <digit> <digit> <digit> <digit>

Examples:

cessna one one five one delta cleared to Eppley Airport Chief two departure Saint Joseph transition then as filed maintain three thousand squawk one zero seven six

cleared to Eppley Airport Chief two departure Saint Joseph transition then as filed maintain three thousand squawk one zero seven six cessna one one five one delta

cessna one one five one delta cleared to Minneapolis International Airport cleared as filed maintain three thousand squawk one zero seven six

cleared to Minneapolis International Airport cleared as filed maintain three thousand squawk one zero seven six cessna one one five one delta
**Ground**

The ATC unit that controls movements on the airport ramps, aprons and taxiways.

**Taxi Request**

On first contact with ground control on departure a taxi request should be made with your current location and ATIS code at `<airport location>` with information `<ATIS code>` request taxi [vfr] `<destination location>`

or if a departure clearance has been received at `<airport location>` with information `<ATIS code>` ready taxi with clearance

Currently the only airport location recognized by VoxATC is 'the ramp'.

The destination locations given must be one of those recognized by VoxATC (any named airport or navaid).

Examples:

*cessna one one five one delta at the ramp with information bravo request taxi Eppley*

*cessna one one five one delta at the ramp with information bravo ready taxi with clearance*

The response to this request will be an instruction to taxi to the current runway. This may include the designations of the taxiways to use

Example:

*cessna five one delta taxi to runway zero one left via bravo*

The taxi instruction should then be read back

*taxi to runway zero one left via bravo cessna five one delta*

**Tower**

The tower controller controls the active runway and the airspace in the immediate vicinity of the airport.
Takeoff Request

When ready to depart make this request to the tower ready for takeoff

Example:

cessna three six bravo ready for takeoff

Takeoff Clearance

Given by the tower controller. Do not stray onto the active runway without one of these cleared takeoff

it requires a read back

Example:

cessna five one delta cleared takeoff surface wind calm
cleared takeoff cessna five one delta

Pattern Entry Instructions

Tower controllers issue two types of pattern entry instructions

left traffic <runway> (indicating a left downwind entry)

and

make straight in <runway>

both must be read back

Examples:

cessna five one delta left traffic runway zero three
left traffic runway zero three cessna five one delta
cessna five one delta make straight in runway zero three
make straight in runway zero three cessna five one delta
Landing Clearance

Issued by the Tower do not touch down at a class B - D airport without one.

cleared to land <runway>

must be read back

Example

cessna five one delta cleared to land runway three two left
cleared to land runway three two left cessna five one delta

Missed Approach

If for any reason you can't complete an instrument approach declare a missed approach

<aircraft call-sign> missed approach <procedure name>

Example:

cessna five one delta missed approach I L S runway one four right
cessna five one delta fly published missed

Fly the publish missed approach and comply with any other instructions the tower issues

You will be told to contact Approach, when checking in request another approach

Example:

cessna five one delta contact Omaha Approach one two four point five
one two four point five cessna five one delta

after tuning to 124.5

Omaha Approach cessna five one delta with you at two thousand request another approach

cessna five one delta roger fly heading three three zero climb and maintain three thousand expect vectors to I L S runway one four right approach
fly heading three three zero leaving two thousand climbing three thousand cessna five one delta
**Departure**

The departure controller is responsible for aircraft departing airports in class B and C airspaces. After takeoff from a class B or C airport aircraft are handed off from the Tower to Departure.

**Center**

Air Route Traffic Control Centers control the enroute phase of an IFR flight and provide flight following (traffic advisories) for VFR flights.

**Altitude Change Requests**

When flying enroute IFR you can request altitude changes as follows

<aircraft call-sign> request higher/lower

Example:

cessna five one delta request lower

or

cessna five one delta request higher

**Request Traffic Advisories**

When flying enroute VFR you may want to request traffic advisories. This request is usually combined with a Position Report and destination

<aircraft call-sign> request traffic advisories

Example:

cessna one one five one delta one zero miles south Saint Joseph at five thousand vfr to Eppley request traffic advisories

**Hold Instruction**

While enroute IFR you may be held at a VOR the hold instruction has the format

hold <direction> <VOR name> on radial <digit> <digit> <digit>, <digit> <digit> mile legs expect further clearance in <digit> minutes

when ATC is ready for you to continue beyond the hold
<call-sign> cleared via last routing

Example

cessna five one delta maintain seven thousand hold south Saint Joseph on radial three five six five mile legs expect further clearance in one zero minutes

maintain seven thousand hold south Saint Joseph on radial three five six five mile legs cessna five one delta

Subsequently

cessna five one delta cleared via last routing

cessna five one delta

**Descend Via STAR**

An instruction issued by ATC that you should descend via a STandard ARrival. Follow all altitudes as given in the procedure

cessna five one delta descend via Kaspr Two arrival Fort Dodge transition

The clearance should be read back in full

descend via Kaspr Two arrival Fort Dodge transition cessna five one delta

**Cleared Via STAR**

An instruction issued by ATC that you are cleared via a STandard ARrival. ATC will issue altitude instructions for the descent.

cessna five one delta cleared via Kaspr Two arrival Fort Dodge transition descend and maintain niner thousand

The clearance should be read back in full

descend via Kaspr Two arrival Fort Dodge transition descend and maintain niner thousand cessna five one delta

**Approach**

The Approach controller handles arrivals incoming to class B and C airports


**Instrument Approach Procedure**

A published procedure for approach to a runway

Example

*I L S runway zero one left approach*

**Approach Clearance**

Issued before the start of an approach procedure

cleared for *<procedure name>*

It should be read back in full

Example:

*cessna five one delta maintain two thousand four hundred until established on localizer cleared for
I L S runway one four right approach*

*maintain two thousand four hundred cleared for I L S runway one four right approach
cessna five one delta*

**Approach Requests**

These indicate you intentions/desires to the approach controller

request transit bravo airspace at *<altitude>* to *<location>*

request advisories through the charlie airspace at *<altitude>* to *<location>*

landing *<location>*

The locations given must be one of those recognized by VoxATC (named airports or nav aids).

**Weather Avoidance Request**

If you are enroute IFR and require vectors around weather ahead you can make the following request

request vectors around buildup ahead

The controller will then vector you around the weather ahead and back on track.
Example:

cessna five one delta request vectors around buildup ahead

cessna five one delta turn left heading two four zero

turn left heading two four zero cessna five one delta

Further instructions are issued to avoid the weather and return you to your previous track until.

cessna five one delta turn left heading one eight zero resume own navigation

Flight Service Station

For the purposes of VoxATC the Flight Service Station (FSS) is the ATC unit that opens and closes VFR flight plans.

Initial Contact FSS

The flight service specialist at the Flight Service Station you are contacting will be monitoring several remote communications outlets at different locations and on different frequencies. In order for them to reply to you they need to know where from and on what frequency you called. An initial call should thus have the format:

<FSS call-sign> <your call-sign> <frequency> <location>

Example:

Columbia radio cessna one one five one delta one two two point two Mason City

cessna one one five one delta Columbia radio go ahead

Opening / Closing Flight Plans with an FSS

Use the following for opening and closing flight plans

<call-sign> request you open my flight plan to <location> at <time>

<call-sign> request you close my flight plan from <location> at <time>

Example:

cessna one one five one delta request you open my flight plan to Eppley at one zero two zero zero zulu
cessna one one five one delta request you close my flight plan from Kansas City International at one zero two zero zulu

**Unicom / Multicom**

**Arriving at Unicom Airports**

When arriving at an airport without a tower on a VFR flight plan, several options for traffic announcements will be displayed in the VoxATC Panel.

1. Turning downwind
2. Turning base
3. turning final
4. On final
5. Clear of runway

Make the appropriate announcement by selecting the relevant option.

For IFR, the VoxATC Panel will display the appropriate announcement for the phase of the flight.

turning downwind

<airport> traffic <call-sign> turning <left/right> downwind for <runway> <airport>

turning base

<airport> traffic <call-sign> turning <left/right> base for <runway> <airport>

final

<airport> traffic <call-sign> turning final for <runway> <airport>

clear of the runway

<airport> traffic <call-sign> clear of <runway> <airport>

Example:

**Mason City Traffic**

cessna one one five one delta turning left base for runway one two Mason City

cessna one one five one delta turning final for runway one two Mason City

cessna one one five one delta clear of runway one two Mason City
Departing Unicom Airports

Newton and Mason City airports have no tower, only a unicom operator who can provide airfield information.

Before taxing call the Unicom operator

You - Mason City Unicom cessna one one five one delta

Unicom - cessna one one five one delta Mason City Unicom go ahead

You - cessna one one five one delta at the ramp request field advisory

Unicom - cessna one one five one delta altimeter two niner zero zero surface wind calm favored runway one two

You - altimeter two niner zero zero cessna one one five one delta

There is no controller at the airport you must announce your intentions to other aircraft and listen to what others are doing. Calls should be addressed to <airport> traffic and should end with a restatement of the airport name.

When taxiing to the runway

<airport> traffic <call-sign> taxiing to <runway> <airport>

before takeoff

<airport> traffic <call-sign> taking <runway> departing to the <direction> <airport>

when clear of the airport

<airport> traffic <call-sign> clear of the area to the south <direction> <airport>

Example:

Mason City Traffic cessna one one five one delta taxiing to runway one two Mason City

Mason City Traffic cessna one one five one delta taking runway one two departing to the south Mason City

Mason City Traffic cessna one one five one delta clear of the area to the south Mason City

Position Fix Request

Enroute during a VFR flight while in contact with an ATC unit for traffic advisories you may request a position fix.

<call-sign>request current position fix
or

<call-sign>request current position fix and bearing to<location>

The controller will reply with your position relative to the nearest airport.

Example:

**cessna five one delta request current position fix and bearing to epopley**

*cessna five one delta you are one five miles east newton municipal epopley bearing three two zero at three zero miles*

**cessna five one delta**

**Request Descent**

While flying enroute and approaching your destination you may come to your TOD (Top of Descent) without having been cleared to a lower altitude by ATC yet. At this point you may make a descent request. ATC will then clear you to an altitude suitable for arrival.

<call-sign>request descent

Example:

**lear five one delta request descent**

*lear five one delta descend and maintain one six thousand*

**descend and maintain one six thousand lear five one delta**

**Resume Own Navigation**

After receiving vectors from ATC, this instruction will be issued to indicate that you should resume following your flight plan as cleared.

<call-sign>resume own navigation

Example:

*cessna five one delta resume own navigation*

**cessna five one delta**
VoxATC Panel

The VoxATC Panel can tell you what frequencies to tune to and what to say. It monitors the flight and listens to any communications you receive from ATC. It will then display instructions in the top part of its window (in red) and what to say (if anything) in the bottom half (in green). Once the PTT button has been pressed and released and the VoxATC Panel recognizes your callsign, the spoken text changes to blue to indicate that it has been transmitted (the VoxATC Panel assumes you have said it). It remains in the window in case you need to repeat it.

A list of options for requests or reports can be displayed by pressing the '0' (zero) key. You can then choose an option by pressing one of the numeric keys (0-9).

If the panel is not visible select Views - Instrument Panel - VoxATC from the simulator menu. If there is no entry for VoxATC in this menu, you need to run the VoxATC Panel Setup.

The panel can be resized by moving the mouse cursor to the panel edge (the cursor will change to a double headed arrow) pressing and holding the left mouse button and 'dragging' the panel edge to obtain the required height/width.
Recent Communications

You can display the most recent ATC communications by pressing the ‘J’ key. This will toggle the display of the last significant comms from ATC. You can also go to the simulator Views menu - Instrument Panels and select ‘VoxATC Recent Comms’.

Recent Comms

read back correct
is cleared to richmond
international airport
cleared as filed maintain
6000 squawk 3035
standby
readability 5
VoxATC Settings

![VoxATC Settings Window]

**Call-Sign Types**

You may choose to use three different types of call sign:

GA - The letters that you specify will be converted into their phonetic equivalents, digits will converted into their word representations. Thus GBBLM becomes 'golf bravo bravo lima mike' and N12345 'november one two three four five'.

USGA - The same as GA except a leading N becomes the aircraft type. N12345 will become 'cessna one two three four five'.

Airline - Letters will be enunciated as displayed, digits are converted into words. Thus united123 becomes 'united one two three'.

**Traffic Density**

The density of traffic in VoxATC can be set in VoxATC Settings.
Setting Prompt Text Colors

To set the colors used to display text in the prompt window click on the Set Prompt Text. A dialog will be displayed which allows you to select the colours for the instruction text (default red), communications text (text to be spoken, default green) and spoken text (the color prompt text is displayed when the system has heard you say your callsign, default blue).

Setting The Prompt Text Font

To set the font of the text displayed in the prompt window, click on the Set Prompt Text button and use the dialog displayed to select the font to be displayed.

Call-signs and Frequencies

VoxATC uses the frequencies defined by the simulator

Emergencies

You can declare an emergency any time that you are airborne. An emergency call has the following format:

mayday mayday mayday <call sign> <emergency type> <request>

This version of VoxATC has five types of emergency currently defined, these are:

- engine failure
- fuel low
- hydraulic failure
- avionics failure
- passenger critically ill

You can make any standard request, but will most frequently want vectors to the nearest suitable airport.

Example:

mayday mayday mayday cessna one one five one delta avionics failure request vectors to nearest airport

cessna one one five one delta cleared to Kansas City Downtown fly heading zero seven five descend and maintain five thousand
**First Officer Available**

When flying an IFR flight plan you can opt to have a first officer available to handle the radio communications, see [Handing Over Radio Communications to the First Officer](#).

**Enroute Hold**

If you have selected a waypoint for enroute hold in [Flight Plan Extras](#) or if you fly an IFR flight plan with some VORs selected as waypoints you can opt to be held enroute. If you have not selected a waypoint, you will be held at the last VOR more than 40 NM from your destination. Select Enroute Hold on the VoxATC settings dialog. As you approach the hold VOR or selected waypoint you will be issued a [Hold Instruction](#) by ATC.

**Enroute Traffic Instructions**

While flying an IFR flight plan you can opt to be issued with instructions to avoid traffic enroute. Select Enroute Traffic Instructions on the VoxATC settings dialog. From time to time the enroute controllers will then issue avoidance instructions:

Example:

- *cessna five one delta traffic alert twelve o'clock your level turn left heading two four zero*

- *turn left heading two four zero cessna five one delta*

Further instructions are issued to avoid the traffic and return you to your previous track until.

- *cessna five one delta turn left heading one eight zero resume own navigation*
Helicopter Operations

If you are flying a helicopter VFR, you will have the option of requesting a direct departure rather than taxiing to the active runway.

If you are on a helipad, you will be cleared for take off, otherwise you will be told to takeoff at your discretion (EU and AUS/NZ) or to proceed as requested (rest of the world). Takeoff and proceed as per your flight plan ensuring that you avoid the fixed wing traffic.

Flying a helicopter VFR, as you contact your destination approach or tower you will be prompted to give your details and state that you intend to land on a helipad or aircraft park. If you are in contact with the tower or other local controller, you will be cleared directly to your landing location. This will happen when you are handed over to the tower if you contacted an approach controller first.

If you are landing on a helipad you will be cleared to land there. Landing elsewhere you will be told to land at your discretion (EU and AUS/NZ) or to proceed as requested (rest of the world). Proceed to your landing location keeping well clear of fixed wing traffic.
VoxATC Indexer

After installing scenery or aircraft into the simulator, you must run the VoxATC indexer to update VoxATC's index of scenery and aircraft. A shortcut can be found in your Start Programs menu.

Flight Plan Trainer

The Flight Plan Trainer allows you to train the system in two ways:

- General training involves common words and phrases that will be used during any flight

- Flight plan training allows you to select a flight plan that you intend to fly and train the recognition system specifically for that flight. The recognizer will be trained for the actual call signs and locations that you will use.

After installing VoxATC you should run through general training at least once. General training can be selected by clicking on the general training button. The recognizer training wizard will then guide you through the training process.

To train the recognizer for a particular flight, browse for the flight file (saved from the simulator) and select a callsign. A callsign must conform to either the airline ( <prefix> <digit> <digit> <digit>) or GA (N <digit> <digit> <digit> <digit> <letter>).
When the flight file has been selected and a call sign entered, the Flight Plan Training button will be enabled. A training session for your flight will be generated upon clicking this which you can then proceed with.

Remember:

Speak evenly with your normal tone of voice.

Avoid long pauses, umms and ahhs.

Try to enunciate as clearly as possible.

Don't clip your speech by starting before pressing the space bar and releasing the spacebar too soon.

While today's recognition software does a good job in most circumstances, no system can be 100% accurate, so expect some mis-recognition especially when you are not experienced with VoxATC phraseology.
SIDs & STARs

VoxATC can use the SID/STARs from the Navdata AIRAC cycle. Once you have setup VoxATC to use this data, these procedures will be available for any of your IFR flights.

The utilities SID/STAR setup and the SID/STAR wizard should only be used for customisation if NavData is not used with VoxATC.

Getting the SID/STAR Data

VoxATC can use NavData from Navigraph (www.navigraph.com). The LevelD 767 FMS is the specific format that is required. If you already have the LevelD 767 installed, then you can proceed directly to the next section, Setting Up.

If not, you will need to download the LevelD 767 FMS data from the site above (an account is required to do this).

The download will be a zip file called something like LEVELD_0911.zip. This name will vary depending upon the current AIRAC cycle.

Unzip the file and run the installer (called something like LEVELD_0911.exe). You are asked for the installation folder (the default being the simulator root folder). If you decide to change this, make a note of it as you will require it when setting VoxATC to use the data. Ensure that you select to install terminal procedures and navdata.

Setting Up

For VoxATC to use the Navdata SIDs and STARs, the path to the Navdata folder must be set. Go to Start – All Programs – VoxATC X – Advanced settings. The Advanced Settings form is displayed. Click the Browse button and navigate to the folder that contains the Navdata files. This is likely to be C:\Program Files\Microsoft Games\Microsoft Flight Simulator X\Level-D Simulations\navdata.

To confirm that VoxATC can pick up the navdata, run the Procedure Pronunciation Editor and load an airport with SIDS and STARs. Check the available SIDs and STARs in the tree view on the left of the form. The runway designations at the departure or arrival airport may have changed, this may affect the SID or STAR assigned, or even if a SID/STAR is assigned at all (see Runway Number Update).

Flight Planning and SIDs and STARs

To be assigned a SID or STAR, your flight plan must have some waypoints that correspond with waypoints in the SIDs at your departure airport and/or STARs at your destination. The assigned procedure may vary depending upon the runway in use.
ATC Instructions

The relevant SID will be assigned as part of the departure clearance. After departure, you will be expected to follow the procedure as published. If you stray off the procedure, the controller will vector you back on to it. You will then be cleared direct to the next procedure waypoint and expected to fly the rest of the procedure as published. If the procedure waypoint you are vectored to is the end of the procedure (last waypoint), you will be cleared to your next flight plan waypoint.

At any time however, ATC may issue vector and altitude instructions which should be complied with.

As you approach your destination, you will be cleared for the relevant STAR. As with the SID, if you stray from the procedure ATC will give you instructions to get back to it. Again be prepared for altitude and vector instructions.
Setting up a Custom SID and/or STAR

You can set up your own SID/STARs for a flight if you don’t want to use the procedures in NavData or you want to add procedures not in that database.

The first few times you setup a custom SID or a STAR, you may want to use the SID STAR Setup Wizard. This will take you through the process step by step. Run the wizard from from VoxATC start menu (Sid Star Setup Wizard). As you get more experienced you can save time by using the utility described below.

If you want to add a departure and/or arrival to a previously saved simulator flight with an IFR flight plan, use the Sid Star setup utility (You will find this in the VoxATC start menu). Initially all the fields of the form will be empty and only the Load Flight Plan and Cancel buttons will be enabled. Click on the Load Flight Plan button to select the simulator flight you want to add a procedure to (the flight must use an IFR flight plan). After loading, the flight plan waypoints are displayed in the list box on the left of the form.
Adding a SID

Enter the name of the SID into the SID Name text box. The name should be easily pronounceable, any numerals should be spelt out and letters their phonetic codes. For example a departure with a code of SFD8P would become 'seafood eight papa'. If the SID name is left empty no SID will be added to the flight.

Optionally a transition name can be added. As with the SID name this should be a pronounceable name not just a code.

The end point of the SID, SID/Transition should be entered as a latitude (in N | S ###*##.##' format), longitude (in E | W ###*##.##' format) and and ID. This is the point at which VoxATC will start stepping you up to your cruise height and clear you enroute. If your flight plan includes this waypoint, you can select it in the from the flight plan list of waypoints and then click the Select From FP button. The latitude, longitude and ID for that waypoint will then appear in the text boxes for the SID end waypoint.

The altitude (in feet above MSL) of the endpoint must be entered into the SID altitude text box. If the 'Altitude ATC Assigned' check box is selected, this altitude will be assigned with your departure clearance. Otherwise it is assumed that all vertical navigation is specified in the SID.

Adding a STAR

Enter the name of the STAR into the STAR Name text box. The name should be easily pronounceable, any numerals should be spelt out and letters their phonetic codes. For example an arrival with a code of DPE3H would become 'dieppe three hotel'. If the STAR name is left empty no STAR will be added to the flight.

Optionally a transition name can be added. As with the STAR name this should be a pronounceable name not just a code.

The start and end points of the SID, SID/Transition should be entered as a latitude (in N | S ###*##.##' format), longitude (in E | W ###*##.##' format) and and ID. Both the start and endpoints of your STAR can be selected from the displayed flight plan waypoints. Select from the flight plan list of waypoints and then click on the appropriate Select From FP button. The latitude, longitude and ID for that waypoint will then appear in the text boxes for the STAR start or end point. As you near the start point of the STAR you will receive a clearance from ATC to use that STAR/transition for arrival. When you reach the end point ATC will vector you to your approach.

The altitude (in feet above MSL) of the start and end point must be entered into the STAR altitude text boxes. If the 'Altitude ATC Assigned' check box is selected, this you will be instructed to descend to the start point altitude with your arrival clearance, otherwise you will be instructed to descend via the STAR (all vertical navigation is specified in the procedure).

Finishing the SID STAR set up

When you have entered the relevant information for the procedures you wish to use on your flight click the OK button. This will save the procedures for use with the loaded flight.
Editing a previously saved flight

If you load a flight which has previously saved SID and/or STAR, the form will display the settings for those procedures. Any of these settings can be edited in the form. If you want to remove a SID or STAR, ensure that the appropriate Name text box is empty when you click the OK button to save the setup.
Setting up Joystick Buttons & Keyboard Keys

You will probably want to map PTT (press to talk), transponder ident, prompt window display toggle (show/hide), comms (recent) display toggle and FO (First officer) operating (active) toggle to buttons on to your game controllers. This can be achieved by running the Joystick & Keyboard Setup utility from the VoxATC programs menu. Initially your current assignments (if any) will be displayed. To assign PTT, click on the 'Assign Press to Talk' button. The current assignment will be cleared and you should now press the joystick button you want to use for PTT. This button will then be assigned to PTT. The same procedure applies to the other items displayed. The status boxes display 'Pressed' when the assigned buttons are depressed.

The Clear Assignments button removes all existing assignments.
You can also change the keyboard keys that are used for PTT, Ident, prompt window display toggle, comms (recent) display toggle and FO (First officer) operating (active) toggle. To assign PTT, click on the 'Assign Press to Talk' button. The current assignment will be cleared and you should now press the keyboard key you want to use for PTT. This key will then be assigned to PTT. The same procedure applies to the other assignment items.

Not all keys can be assigned including; the digits (0-9), and Alt. If you try to assign one of these keys your selection will not be accepted until you press a key that can be assigned.

The assignments you make are not saved for use with VoxATC until the OK button is clicked. Cancel will exit without changing any existing assignments.
Setting up the Voices VoxATC will use

Assignments

The voices that VoxATC will use can be selected by running 'Voice Configuration' from the VoxATC program menu (see above). Voices can be chosen for controllers, pilots and the first officer. Multiple voices can be assigned for use by controllers and pilots from those available on your system. To assign a voice, click on the voice in the available list and then click on the >> button to move the voice to the assigned list. To de-assign a voice, click on it in the assigned list and then the << button to move it to the available (unassigned) list. The first officer voice is selected from the drop down combo box list. Clicking the ‘speak’ buttons will play the currently selected (assigned or available) pilot or controller voice, or the displayed first officer voice. The voices may take a few seconds to load before you hear them.

The assigned voices will be selected randomly by VoxATC for controllers and pilots. It is a good idea not to assign the same voices to controllers and pilots to avoid a voice "talking to itself".
As each voice uses significant resources, it is advisable not to use more than 4 different voices on systems with modest amounts of RAM (less than 3GB).

Special voices (VoxPop) are available for use with VoxATC, go to http://voxatc.com/Voice.aspx/VoxPop for more details.

**Settings**

![VoxATC Voice Configuration](image)

Select the output device that VoxATC TTS voices from the Output Device combo box. The speech rate and volume of each individual voice can be altered by changing the position of the appropriate slider.

When you select a VoxPop voice to speak for the first time, there may be a pause of up to a minute (on slower systems) while the voice is loaded. There may also be a long pause after changing the output device as the VoxPop server is restarted.
The aircraft you intend to use VoxATC with must have the **VoxATC Panel** installed. To do this use the panel setup utility. To run it select Start - All Programs VoxATC X - VoxATC Panel Setup. Select the aircraft from the displayed list or click Select All. After selecting the aircraft click Install to setup the **VoxATC Panel** in those aircraft.

To remove the VoxATC panels from the simulator aircraft click Remove All.

Don't forget to run the **VoxATC Indexer** and Panel Setup after installing new simulator aircraft.
Finding your way to the takeoff runway or parking at your destination

After receiving taxi instructions to your departure runway or, after landing, to parking you can display the taxi route. Press '0' to display the options menu and then press 1 'Show/Hide taxi route'. Your taxi route will be indicated by a series of purple cones positioned about a metre above the taxi way, pointing in the direction of the taxi destination. The threshold of the destination runway or the parking position is marked by two cones apex to apex. The 'Show/Hide taxi route' menu item toggles the display of the taxi route.
**Taxi Route Indicated By Green Lights**

At airports with a dedicated ground frequency, the route that ATC wants you to follow will be displayed as a line of green lights up the centre of the taxiway. You can then ‘follow the greens’ to the hold you have been cleared to.

When you reach the holding point, a line of red lights will be displayed across the taxiway. These will be displayed until you receive an onward clearance.
You can still toggle the display of the taxi cones (see above) if you so wish.

Taxi route lights can be disabled in Advanced Settings

**Taxiway Centre Light Remover**

This is a utility that creates an overlay scenery file for an airport with all the green taxiway centre lights removed. The green lights used to indicate the assigned taxi route can be confused with those already present in the scenery.

By running the taxiway centre light remover, a scenery (.bgl) file for the airport is created in the VoxATC Substitutes scenery area. You should ensure that this scenery area has the highest priority (is at the top of the list of scenery areas). If you add scenery for an airport, you should run this utility again to ensure that the taxiways are correctly overlaid and the green centre lights removed.

When you run the utility, enter the ICAO code for the airport (e.g. EGLL for Heathrow).

**Handing Over Communications to the First Officer**

When flying larger aircraft, you would normally expect to have a first officer who handles radio communications when you are flying the aircraft. This function is available for IFR flights.

To have the first officer available on an IFR flight, run VoxATCSettings and check First Officer Available

When VoxATC has initialized, at the top of the VoxATC panel FO on a red background will be displayed.
The red background indicates that the first officer is not handling radio communications but is available. If ‘FO’ is not displayed, you have not set the first officer to be available or you are flying VFR.

To enable FO comms, press the K key on the keyboard. This is a toggle key and will also disable FO comms. When FO Comms is enabled ‘FO’ is displayed with a green background on the VoxATC panel.

The first officer will now handle all radio communications. However there will be occasions when you will need to tell the first officer to make a call. These include calling for clearance, pushback,
taxi and departure and making reports. The VoxATC panel will prompt you to tell the first officer to do this. You tell the first officer to make the call without pressing the PTT key, as if he were sitting next to you. If you don’t want to speak, you can also get the FO to make the call by clicking (pressing and releasing) the PTT key.

If you want to take over radio comms yourself, press the K key to disable FO comms. This may not happen if the first officer is in the process of handling a comms exchange with ATC. Wait until the first officer has finished and try again.

You can set up a joystick button to toggle FO Comms with the Joystick Setup.
Advanced Settings

VoxATC Advanced Settings

NavData Folder
Folder that contains the LevelD Format Nav Data VoxATC can use for SIDS and STARS
C:\Program Files (x86)\Microsoft Games\Microsoft Flight Simulator X\LevelD Simulator
Browse...

Taxi Route Lights
At airports with a dedicated ground frequency, the route that ATC wants you to follow will be displayed as a line of green lights up the centre of the taxiway.
If Required, this can be disabled
☐ Disable

Process Priority
The performance of VoxATC/FSX may be improved by changing the priority of VoxATC.
However, changes may also stop one or other from performing well or at all.
Normal or Above Normal should suffice for nearly all situations

Expert Mode
In Expert Mode, there is no instruction on what to say or do. Only readbacks and responses are displayed.
A wider range of phraseology may be used for requests, but readbacks must still be correct.
The First Officer is not available in Expert Mode
☐ Enable

Process Affinity
Select the processor(s) or core(s) that VoxATC will run on.
Selecting different processors (cores) for VoxATC and FSX can sometimes improve performance.
This is only available on multi processor (core) systems
☐ 0 ☐ 1 ☐ 2 ☐ 3

Logging
☑ Enabled
Save Log  Clear Log

OK  Cancel
The advanced settings form has four sections.

**NavData Folder**

Click on the Browse button and select the folder that contains the navdata VoxATC will use (see Setting Up SIDs and STARs).

**Taxi Route Lights**

Green taxi route lights will not be displayed at airports with a dedicated ground frequency if Disable is checked.

**Process Priority**

The performance of VoxATC and simulator may be improved by changing the priority of the VoxATC process. However changing the priority of the process to anything other than Normal or Above Normal may degrade performance drastically.

**Process Affinity**

The core(s) VoxATC uses can be selected in this section.

**Logging**

This section enables/disables logging, clears log files and allows the error log file to be saved.
The code used to designate a procedure (SID/STAR), is usually an abbreviated form of the procedure name. VoxATC must translate this to the designation that will be used in ATC comms. This process is not perfect and in some cases, can produce incorrect spoken designations. The Procedure Pronunciation Editor allows for the definition of replacements for unpronounceable parts of a procedure name on an airport by airport basis.

**Load Airport**

To start, select Load Airport on the menu and enter the ICAO code of the airport into the displayed dialog. A tree view on the left side of the form displays the airport name and two sub items SIDS and STARS.
Select Procedure

The SID or STAR items on the tree view can be expanded to display the individual procedures. When selected, the procedure’s code and pronunciation are displayed in the top right of the form. A procedure may be expanded on the tree view to list the available transitions; these are also available for selection.

Speaking the Procedure Name

Clicking the Speak button enables the pronunciation of the selected procedure name to be heard with the currently selected voice.

Set Voice

The current voice can be chosen by selecting Set Voice on the menu. Any of the SAPI voices available to VoxATC may be selected.

Creating / Editing Substitutions

The pronunciation of a procedure name can be changed by specifying text to be replaced (source) and its replacement. The lower right area of the form displays a list of source text snippets and their corresponding replacements. New items may be added by clicking the Add button. This will add a new line to the end of the list.

To edit the source or replacement text, click on it. In the figure above the source text ‘jhawk’ is being edited. Pressing return or clicking elsewhere on the form will finish editing. The source text must contain a minimum of 3 characters, if you attempt to finish editing with less, the edit box will remain with a red border to indicate the need for further input.

Changes to the source and replacement text will be reflected in the pronunciation of any selected procedures that are affected by the change.

The currently selected line may be removed by clicking the Delete button.

Save & Close

The changes made to the pronunciation of procedure names can be saved for use with VoxATC by clicking the Save button. Any changes made that are not saved will be lost. The close button terminates the editor.
Runway Number Update

The numeric part of a runway designation, for example ‘27’ in the designation 27L is assigned based on the magnetic heading of the runway (rounded to two digits). A runway with a magnetic heading of 273 will be assigned 27, one with a magnetic heading of 023, 02. Over time, the magnetic heading of a runway can change as the locations of the magnetic poles vary. This can require that certain runways must be assigned a new numeric designation. An example of this is EGSS (London Stansted). The default simulator scenery designates the runway at EGSS as 03/23. This has now been changed to 02/22.

While irritating, this is not a significant until SIDS/STARS from the Airac cycle (Navdata) are used. Many of these procedures are assigned to particular runways using the runway designations. VoxATC may be unable to assign the correct SID/STAR if the runway designations have changed.

To remedy this, you can use the Runway Number Update Utility.

This utility will scan the simulator scenery libraries and compare the runway designations with those in the latest Airac cycle data. It can then produce scenery overlays for the airports that require changes.

To run, go to Start – All Programs – VoxATC X – Runway Number Update. When loaded, click the Scan button. The utility will scan the scenery library (this may take several minutes) and on completion, display the airports and the runways at that airport that have changed.
After the scan, all displayed airports are selected for update. Airports can be selected/deselected individually or by clicking the Select All / Deselect All buttons.

After selecting the required airports, click Update. This will generate scenery overlay files for the selected airports in the Runway Number Update scenery library area. This area should be top of the list of scenery areas if you select the Scenery Library in simulator settings. Please note that running the scan will delete any airport scenery overlays that have been produced previously by the Runway Number Update utility.

The VoxATC Indexer should be run after updating any airports.

The Runway Number Update will identify most runways that require updating, but some may be missed. In these cases updated scenery for the airport is required.
Flight Plan Extras

Extra aspects of an IFR flight can be specified using the Flight Plan Extras utility.

Click the ‘Load button’ to select the flight plan you wish to add or edit the extra attributes.

No Vectors to Approach

If checked, no vectors will be given by ATC at your destination. You will be cleared to fly one of the published approaches to the current arrival runway.
**Enroute Hold Waypoint Id**

Any flight plan waypoints a sufficient distance from the departure and destination airports can be selected for an Enroute Hold.

**Variations**

ATC can issue routing clearances based upon flight plans specified as variations to the base (loaded) flight plan. This is best explained by an example. Load the VoxATC Flight Plan Variation Demo Flight. This flight uses the flight plan VXAKMCI2KOMALABase which has the following routing KMCI STJ TRAIG V159 OVR KOMA.

The flight plan has three flight plan variations:

- VXAKMCI2KOMALA1 with the routing KMCI HANOT TRAIG V159 OVR KOMA
- VXAKMCI2KOMALA2 with the routing KMCI PEGGI KARAA TRAIG V159 OVR KOMA
- VXAKMCI2KOMALA3 with the routing KMCI JUDAA COVUT TRAIG V159 OVR KOMA

For the demo, the variations are selected randomly, so your clearance could be one of:

- `<call sign>` cleared to eppley airport hanot triag victor one five niner then as filed maintain four thousand squawk three zero one three
- `<call sign>` cleared to eppley airport peggi karaa triag victor one five niner then as filed maintain four thousand squawk three zero one three
- `<call sign>` cleared to eppley airport judaa covut triag victor one five niner then as filed maintain four thousand squawk three zero one three

Clicking ‘Add’ will enable browsing of the currently saved simulator flight plans, clicking delete will remove the currently selected variation.

The radio buttons select random variation selection or selection of the first variation flight plan in the list.

**Flight Plan to Alternate**

A flight plan to an alternate destination can be selected, which must start at the current destination. When flying a missed approach, you will then have the option to request a diversion to the alternate. You will be cleared to the alternate via the alternate flight plan routing.
Flying in UK / European Airspace

VoxATC uses different phraseology and procedures when you are flying in the UK or Europe.

Frequencies are given using 'decimal' instead of 'point'.

QNH and QFE are used for altimeter setting.

The transition altitude is 3500.

'Pass your message' replaces 'go ahead'

'Ready for departure' replaces 'ready for takeoff'.

A UK supplement is available that adds LARS, DACS, MATZ and FISO and A/G phraseology, see VoxATC.com for further information.
Running VoxATC Over a Network

To run VoxATC on a different computer from your simulator, install the version of VoxATC for the simulator you are using on the simulator computer and VoxATC Net Server on the computer you want to run VoxATC. All SAPI and VoxPop voices that you want to use should also be installed on this computer. Also, be aware that although the PTT and Ident key presses will be picked up by VoxATC on the server from the simulator computer, the numeric keys used to select items on the VoxATC panel menu will not. If you wish to use the menus, you will need to have some kind of keyboard connected to the VoxATC server computer and accessible during flights.

Once installed on both computers, go to Start – All Programs – VoxATC Net Server – VoxATC Net Server on the server machine and the following window should be displayed.

On the simulator computer, if you have not setup the firewall to run VoxATC over the network, go to Start – All Programs – VoxATC <Simulator Type> - Net Client Firewall Setup.

If you have setup the firewall (it only needs to be run once after installation) go to Start – All Programs – VoxATC <Simulator Type> - VoxATC Net Client and the following window will be displayed.

If the two computers are connected over a network and the firewall settings are correct, the net server window will show this as
The first time the client and server connects, the VoxATC indexer files are transmitted from the client to the server followed by any flight plan files on the client computer. This can take several minutes. If you make any changes to the scenery or aircraft on the simulator computer, ensure that you run the VoxATC indexer on that system. The updated index files will then be sent to the server the next time the client and server connect.

When you click the Enable button on the VoxATC panel, VoxATC will start running on the server and this will be indicated on the server window by ‘VoxATC Server Running’ being displayed on a green background on the forth status line. The ‘Stop VoxATC Server’ button will also be enabled. This should only be used to stop the VoxATC Server process if the connection to the client computer is broken.

The VoxATC server process once running will update the VoxATC panel in the simulator via the network client, PTT and transponder ident key presses transmitted back. Run VoxATC Joystick setup on the simulator computer to assign the keys/buttons for these.

The first two status lines on the Net Server window indicate if either of the two types of remote panels is connected. VoxATC Remote should be downloaded and installed on the computer you wish to run those panels on. VoxATC Panel Proxy should not be run if VoxATC Net Server is being used.
Trouble Shooting

No radio reception

On some systems the sound card may not permit more than one application access. If this is so there will be no speech output from VoxATC if sounds on simulator are enabled. In this case disable FSX sounds (toggled with Q on the keyboard).

Check that you have correctly tuned the comm1 radio to an ATC unit and the frequency is selected (in use not standby).

No response from ATC

Check that speech recognition is correctly set up on your system. You should be able to use the VoxATC trainer application. Set up speech recognition by selecting the speech icon in the control panel (see Setting Up Speech Recognition).

Check the correct frequency selected on the comm1 radio.

Check your current simulator location, you may be out of range.

Make sure you are keying the microphone (pressing the spacebar while you speak).

Try using the shortened call sign based on the unit type (ground, approach, tower etc).

ATC responds with 'Last aircraft say again'

Use shortened ATC call-signs and if specifying an airport location or waypoint try 'anyplace'

Example:

Unrecognizable clearance cessna five one delta ready for clearance
unrecognizableplace

becomes

clearance cessna five one delta ready for clearance anyplace.

Repeated recognition mistakes indicate that you should use the Flight Plan Trainer and go through both the training for the flight plan and general training.

ATC refuses requests

There are a set sequence of calls expected when you arrive or depart an airspace. If you call a controller without being handed over properly or make a request at the wrong time you may get a
response such as "Cannot approve clearance at this time". This can also occur when you make a request for a clearance that has already been given you.

One remedy is to request a frequency change (always approved) and make initial contact with the controller again.

**Slow response or speech generation**

If you are running on a CPU slower than 2 GHz with less than 512 MBs of RAM then expect slow running.

**VoxATC prompts you to contact an enroute unit (center or approach) on start up but you are on the ground at your departure airport**

A flight has been loaded while VoxATC is enabled. Disable and re-enable VoxATC. This can also happen if the aircraft is not positioned on the ground at the departure airport in the currently loaded flight plan (check the flight log).