

CoTaCo: COndor TAsk COnverter

User manual

Table of contents

CoTaCo: COndor TAsk COnverter V3.3	2
INSTALLING	2
USAGE	3
COMMON FEATURES	3
Automatic conversion	3
Post run script	3
Folders and files	4
Turnpoint names and files	4
AAT	4
Coordinates conversion	4
Penalty zones	4
XCSoar	5
Folders and files	5
Profile file	5
XCSoar on another device	5
Turnpoint Names	5
Polar and ballast	5
Maps	5
LK8000	6
Folders and files	6
Profile file	6
LK8000 on another device	6
Polar and ballast	6
Maps	6
SeeYou	7
Creating a .cup file	7
Folders and files	7
Importing a SeeYou task (.cup) into a Condor flightplan (.fpl)	7
CoTaCo.ini file contents	8
SUPPORT	9
ACKNOWLEDGEMENTS	9
DISCLAIMER	9

CoTaCo: COndor TAsk COnverter V3.3

CoTaCo is a basic tool to convert **Condor** flight plans (.fpl) to **XCSoar** tasks (.tsk) or **LK8000** tasks (.lkt) or **SeeYou** tasks (.cup)

It handles both **Condor 1** and **Condor 2**.

It is possible to create a profile file (.prf) with the following information:

- airspace file (if penalty zones have been defined)
- map (.xcm)
- glider polar (.xcp) (fixed ballast is taken into account)
- turnpoints file (.cup)

Maximum departure (including a possible safety margin) and minimum finish altitudes are directly written to the converted file. If minimum or maximum altitudes are specified for a turnpoint, they will be written at the end of the turnpoint name (**XCSoar** only)

“Window” type turnpoints will be converted to “line” (except for SeeYou)

AATs zones are supported for both **XCSoar** and **LK8000**

Condor penalty zones are converted to OpenAir format (.txt)

It is possible to run a batch file after execution (e.g. to transfer files to another device)

It is also possible to import a task defined in a .cup file into a Condor flight plan (.fpl).

INSTALLING

Uncompress the Zip file in the desired folder

The **CoTaCo** folder should contain:

- | | |
|-------------------------------|---|
| - ChangeLog.txt: | description of the updates |
| - CoTaCo.bat: | sample batch mode script (courtesy Erik P.) |
| - CoTaCo.exe: | executable file |
| - CoTaCo_Manual_EN.pdf: | This file: English Version of the manual |
| - CoTaCo_Manual_FR.pdf: | French Version of the manual |
| - LISEZMOI.txt: | French Version of README.txt |
| - NaviCon.dll: | Condor coordinates conversion library |
| - README.txt: | French Version of LISEZMOI.txt |
| - sample_transfer_script.bat: | sample file transfer script (courtesy Yannick Burgevin) |
| - Template.fpl: | sample Condor flightplan for .cup imports |

After the first use, you may also find:

- CoTaCo_maps.txt: list of **XCSoar** maps (see below)
- CoTaCo_LK8000_maps.txt: list of **LK8000** maps (see below)
- CoTaCo.ini: settings file

This file will be created automatically at the first execution of the program if it does not exist.

On this occasion it will be necessary to indicate the path to the destination folder for the converted tasks

If you already have a **CoTaCo.ini** file from an earlier version, it may be re-used: it will be updated and the old version will be renamed to CoTaCo_0000.ini or _0001, etc. if an older file already exists.

It is possible at any time to edit this file with a text editor (Notepad or other) to adapt it to your configuration and wishes. See format below

USAGE

If you want to use drag-and-drop mode to start the converter, it is recommended to create a shortcut on your desk. It is then possible to drag and drop a flight plan file to the shortcut to convert it.

Otherwise the converter can be started by double-clicking the icon. A popup windows opens to select the file to convert

It can also be started from a DOS prompt, either with the GUI or in CLI (Command Line Interface) mode. This can be useful if used in batch mode on a server.

GUI: type CoTaCo.exe at the ">" prompt

CLI: the command line syntax is

```
> CoTaCo.exe [-help] [-line] [-auto] [-silent] [-chkwp] [-v] [-aat] [-lk8000] [-cup] [flight_plan.fpl] [task]
```

all arguments and options are optional

-help: displays the command line syntax

-line: start without GUI

-auto: if, in the .ini file for "Flightplans path" is a file, start without opening a selection window.

-silent: suppress status message after conversion

-wait: wait for last version of the current flight plan before starting

-chkwp: get the Lat/Lon values from the corresponding .cup or .apt files when available otherwise use the ones in the .fpl

-v: verbose mode

-aat: the task will be converted to AAT (Area Assigned Task)

-cup: convert the task to SeeYou format.

-lk8000: convert the task to LK8000 format

flight_plan.fpl: input file

task: converted file, if not specified, defaults to flight_plan (.tsk, resp .lkt, .cup)

COMMON FEATURES

Automatic conversion

If, in the .ini file, "**Flightplans path**" corresponds to a file, it is possible to start automatically without opening a selection window.

To do this, Set **Autoload=1** in the **CoTaCo.ini** file or add the **-auto** option on the command line.

It is also possible to start **CoTaCo** before Condor has started and make it wait for the current flight plan to be written. This allows for a fully automatic conversion of the current flight plan, especially interesting if you are using a script to start utilities before starting **Condor**.

To do this, set **Autoload=2** in the **CoTaCo.ini** file or add the **-wait** option on the command line.

If "**Flightplans path**" is not a file, **CoTaCo** will use the current **Condor** flight plan which is:

DOCUMENTS\Condor\Pilots\YOUR_PILOT_NAME\Flightplan.fpl (for Condor2)

Note: If CoTaCo has been started with the -wait option, popup windows may be hidden in the background while Condor starts if Condor is not in "Windowed" mode.

Post run script

If you want to transfer the converted files automatically to another device (mobile phone, tablet, etc.), it is possible to run a script (.bat) after writing the files. The path is specified by **Post run script** in the .ini file. A sample script file (for LK8000, courtesy **ybuqcq**) is provided in the distribution

Folders and files

The destination folder for the converted tasks can be on a remote computer, provided you have write access.

Existing files with the same name will be overwritten without warning!

Turnpoint names and files

It may be interesting to create .cup files containing both turning points and airports.

This can be done using CondorWPFileGen.exe

See there: <http://www.condorsoaring.com/forums/viewtopic.php?f=1&t=13020>

If you have just installed a new landscape in Condor, before you try to convert a flight plan located on that landscape, make sure to start Condor, open the flight planner and select the new landscape. Otherwise you may get an error message about the corresponding .cup file

AAT

Due to the extreme simplicity of the GUI used, activation of AAT mode is more complicated than it should be.

From a DOS prompt or in a batch script: add the -aat option on the command line

Double-click start or drag-and-drop:

- either activate **AAT=1** in the **CoTaCo.ini** file, it is then possible to de-activate temporarily that mode by clicking [Cancel] or by entering a value of zero in the AAT time popup window
- or rename the input flight plan so that its name contains "-AAT" e.g. flight_plan-AAT.fpl

It is also possible to let **CoTaCo** try to determine if the circuit is an AAT by setting **AAT=2** in the **CoTaCo.ini** file. The mode will be activated if at least one turning point has a radius greater than or equal to 5000m. It is possible to disable this mode by either clicking [Cancel] or entering a zero value in the AAT duration pop-up window.

Note: If CoTaCo has been started with the -wait option, the AAT duration input popup window may be hidden in the background if Condor is not in "Windowed" mode.

If the flight plan filename does not contain "-AAT", it will be appended at the end of the task filename e.g. flight_plan-AAT.tsk, except for default files (default.tsk or default.lkt)

Coordinates conversion

CoTaCo uses a **Condor** library (**NaviCon.dll**) for the conversion of coordinates.

The library supplied with **CoTaCo** corresponds to **Condor 2**. It can be used for:

- all **Condor 2** tasks
- the **Condor 1** tasks located in the Northern Hemisphere.

For Condor 1 circuits located in the **SOUTHERN** hemisphere, it is **MANDATORY** to make a copy of the **NaviCon.dll** file (e.g. by renaming it to **NaviConV2.dll**) and replace it by the one in the **Condor 1** installation folder.

By default, a warning message is displayed for **Condor 1**

It is possible to disable it by modifying the **CoTaCo.ini** file (see above).

Penalty zones

The penalty zones are converted to **OpenAir** format

They are written to a file named as the task with "-PZ" appended e.g. FLIGHT_PLAN_NAME-PZ.txt

XCSoar

Folders and files

If, in the .ini file, **Destination Path** corresponds to a file name (including the path and ending with .tsk), this file name will always be used to write the task.

Otherwise, if **Destination Path** corresponds to a folder, the name of the converted file will be identical to that of the .fpl file.

If **Destination Path** contains **Tasks** the profile and Default.tsk files will be written in the folder located above, otherwise, in the same folder.

Depending on the **Write Default Files** parameter in the CoTaCo.ini file (see below), CoTaCo will either create a Condor.tsk file in the folder defined by **Destination Path** or a Default.tsk file in the XCSoar root folder (or the same folder, see above),

Profile file

It is possible to create (or not) a profile file according to the **Profile file** parameter in the CoTaCo.ini file (see below).

If the profile file does not exist, it will be created from the default.prf file (REQUIRED), otherwise it will be updated.

XCSoar on another device

If you are using XCSoar on a tablet or a phone and do not have direct access from the PC to the XCSoar root folder (XCSoarData) on the device, it is recommended to create on your PC an XCSoarData folder (with possibly a Tasks sub-folder), and to put "Use Polars folder=0" in the CoTaCo.ini file (see below).

You will also need to copy the default.prf profile file to your PC if you want to create a profile file.

Turnpoint Names

XCSoar truncates the displayed turnpoint name to 5 characters (default), which prevents the display of min/max altitudes. It is possible to display the full name by going to the XCSoar menu:

Config/System/Maps/Waypoints/Label Format

Note: if XCSoar finds a turning point in the map.xcm file, all the information (including its name) will be taken from the file and not from the .tsk file, this can lead to the loss of the altitude display.

Polar and ballast

If you decide to create a profile file, the fixed ballast will be taken into account for the polar file, assuming that you use the polar files for all Condor 2 gliders which are available here:

https://condorutil.pagesperso-orange.fr/index_fr.html#Polars

The water-ballast cannot be defined in the profile file, so you will have to enter the value directly in XCSoar (Config/Vol).

Maps

It is possible to download maps from the page: <https://xcsoar.org/download/maps/>

It is also possible to generate them on the page: <http://mapgen.xcsoar.org>.

If the writing of the profile file is activated, CoTaCo manages the correspondence between Condor scenes and XCSoar maps.

The CoTaCo_maps.txt file is created or updated by CoTaCo the first time a map is found. You can also edit this file with a text editor (especially for changes).

File format (lines starting with # are not read):

Scene_Name=XCSoar_Card

for example.:

AA2=ALPS_HighRes.xcm

LK8000

The parameter **Target=LK8000** must be defined in the CoTaCo.ini file or the `-lk8000` option set on the command line.

LK8000 supports only one type of waypoint, the most frequent one will be used
270° sectors will be converted to circles.

Folders and files

If **Destination Path** contains **_Tasks** CoTaCo will assume that there is a standard LK8000 tree structure, the files will be written to the folders provided, otherwise all in the same folder.

If in the .ini file, **Destination Path** corresponds to a filename (including the path and ending in .lkt), this filename will always be used to write the task.

Otherwise, if **Destination Path** corresponds to a folder, the name of the converted file will be identical to that of the .fpl file.

According to the **Write Default Files** parameter in the CoTaCo.ini file (see below)

CoTaCo will create:

0: **Name.lkt**, **Glider.acf**, **Name.prf** (where **Name** is the name of the .fpl file to convert)

1: **Default.lkt**, **DEFAULT_AIRCRAFT.acf**, **DEFAULT_PROFILE.prf**

2: **Dest.lkt**, **Dest.acf**, **Dest.prf** (where **Dest** is the file name defined by **Destination Path**)

Profile file

It is possible to create (or not) a profile file according to the parameters **Profile file** and **Write Default Files** in the CoTaCo.ini file (see below).

If the profile file does not exist, it will be created from the file **DEFAULT_PROFILE.prf** (REQUIRED), otherwise it will be updated.

LK8000 on another device

If you are using LK8000 on a tablet or phone and do not have direct access from the PC to the LK8000 root folder (LK8000) on the device, it is recommended that you create an LK8000 folder on your PC (preferably with the standard tree structure).

You will also need to copy the profile file **DEFAULT_PROFILE.prf** to your PC if you wish to create a profile file.

Polar and ballast

CoTaCo will always create an .acf file. In order to fill it in correctly, the polar files for all Condor 2 gliders (.xcp and .plr) must first be copied to the **_Polars** folder (or to the common destination file if you do not have the standard LK8000 tree structure). The fixed ballast will be taken into account

The polar files are available here: https://condorutill.pagesperso-orange.fr/index_fr.html#Polars

Water ballast cannot be defined in the profile file and has to be set in **LK8000**

Maps

It is possible to download maps from the page: <https://lk8000.it/download/maps.html>

If the writing of the profile file is activated, CoTaCo manages the correspondence between Condor scenes and LK8000 maps.

The file **CoTaCo_LK8000_maps.txt** is created or updated by CoTaCo the first time a map is found. You can also edit this file with a text editor (especially for changes).

File format (lines starting with # are not read):

Scene_Name=LK8000_map,LK8000_terrain

for example.:

AA2= ALPS.LKM, ALPS_1000.DEM

SeeYou

Creating a .cup file

The parameter **Target=CUP** must be defined in the CoTaCo.ini file or the `-cup` option set on the command line.

Folders and files

If, in the .ini file, **Destination Path** corresponds to a file name (including the path and ending with .cup), this file name will always be used to write the task.

Otherwise, if **Destination Path** corresponds to a folder, the name of the converted file will be identical to that of the .fpl file.

Importing a SeeYou task (.cup) into a Condor flightplan (.fpl)

The input task file must have the .cup extension.

Hint: if you want to select this file interactively, select “All files (*.*)” in the file selection popup window.

Only the first task present in the .cup file will be processed

The Template.fpl will be used to generate the Condor flightplan.

It is possible to edit it to match your preferences as long as you respect the Condor format.

All the waypoints used in the task must be present in the .cup file.

Only maximum altitudes are supported.

If the start airport is specified in the .cup file, make sure that it matches exactly the Condor airport.

Otherwise, (waypoint name = “???”), the Condor airport closest to the starting point will be selected.

CoTaCo.ini file contents

Lines starting with # are comments

- **CoTaCo Version** = version number of the program that wrote the file – please do not edit
- **Target** = Target software (XCSoar/LK8000 - default=XCSoar)
- **Condor 1 path** = Condor 1 installation folder
- **Condor 2 path** = Condor 2 installation folder
- **Destination path** = path to destination folder (or file) for converted tasks
usually: XCSoarData\Tasks or LK8000_Tasks
- **verbose** = verbose mode (0 = disabled, 1 = enabled)
- **AAT** = the task is an AAT (0 = disabled, 1 = enabled, 2 = auto-detect)
- **Condor 1 warnings** = warning messages for Condor 1 (0 = disabled, 1 = enabled)
- **Silent** = suppress summary end message
- **Write Default Files** = write default files (see comment in file)
- **Ask for map** = what to do if map found in CoTaCo(_LK8000)_maps.txt:
1=always ask for map, 0=use map found
- **Use Polars folder** = the polars and maps are stored in specific folders (Polars/Maps) (0/1/2/3, default=1)

XCSoar uses a Polars folder on Windows PCs, but not on Android devices
- **Start height margin** = safety margin for start altitude.
- **Profile file** = profile file name (name, 0=NO, default = Condor.prf)
- **Airspace file** = airspace file name (name, default=FLIGHT_PLAN_NAME-PZ.txt)
- **Flightplans path** = default path for flightplans - if unspecified: last folder searched
if you fly mostly online, the most practical would be:
MY_DOCUMENTS\Condor\Pilots\MY_NAME\Flightplan.fpl (C2)
if you fly mostly offline:
MY_DOCUMENTS\Condor\FlightPlans (C2)
- **AutoLoad** = 1: if "Flightplans path" is a file, start without opening a selection window ;
2: wait for the current flight plan to be updated
- **Post run script** = script (.bat) to be executed after file conversion

SUPPORT

Please report any bugs to: cotaco@marc-till.com

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The GUI uses components from "tiny file dialogs" under a zlib license
<http://https://sourceforge.net/projects/tinyfiledialogs/>

NaviCon.dll is provided courtesy of UBSOFT, editor of Condor, who remains owner of the copyright

DISCLAIMER

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