CYCD (2011)

for FS9/FS2004 and FSX

(CYCD version 1.10)

USER MANUAL

An Add-On Covering the Nanaimo, British Columbia, Canada Airport and Surrounding Area as it Appeared in Mid 2011.

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1.   INTRODUCTION

CYCD for Microsoft® Flight Simulator ("MSFS") portrays the Nanaimo (British Columbia, Canada) Airport (CYCD) and surrounding area.

<u>Features</u> - CYCD features:
- an airport definition (AFCAD) based on high-resolution aerial photos that:
  - accurately places all runways and taxiways,
  - displays realistic taxiway and apron markings,
  - drive-through parking for all AI,
- accurate taxiway and apron signage,
- low-FPS-impact, multi-LOD, ground-hugging perimeter fencing (8' high chain link with bent top, and
- a selection of static aircraft and operating AI.

CYCD has recently completed a major runway extension and addition of ILS. This version of CYCD incorporates both of those as well as the five night approach beacons to the south.

The buildings and most other objects in CYCD (2011) are taken directly from Ken Peter's earlier FS9 release of CYCD (which was based on the stock airport with its - now - shorter runway). This was done with Ken's consent and assistance. While Ken included some extra objects in his FSX release, I noticed severe flickering problems on my system, so elected not to include them. (Perhaps in a future release.)

<u>Compatibility</u> - CYCD is fully compatible (once the necessary compatibility files are configured) with:
- ORBX FTX NA Blue USA Canada Pacific Northwest ("ORBX FTX NA"), and
- Ultimate Terrain Canada/Alaska for FS9 and Ultimate Terrain X - Canada for FSX (generally referred to as "Ultimate Terrain" or, simply, "UT"), and

All these add-ons generate roads, shorelines and/or landclass that may differ in position and textures from one another and from the mating features in CYCD. Without attention, there would be discontinuities at the boundaries of CYCD where, for example CYCD's roads meet those generated by whatever add-on is controlling the roads in the surrounding area. (CYCD is outside the area addressed by Jon Patch's and Holger Sandmann's Victoria+ and Vancouver +, so it should not affect, or be affected by, either of those offerings.)

Add-on compatibility may be managed in either of two ways. If compatibility with only a single add-on is required, the compatibility files are installed with the CYCD scenery. However, if you wish to be able to quickly reconfigure CYCD to be compatible with more that one add-on, the compatibility files remain in separate folders and a Scenery Library item is used for each set of files. The latter method is referred to as the "Scenery Library method" of compatibility. (For further detail, see Section 4, Reconfiguration and Customization.

2.   INSTALLATION AND UPDATES

Automatic Installation - CYCD includes an installer. This installer is a Microsoft NET.Framework 3.5 application. If NET.Framework 3.5 or a later version is not already installed on your computer, the latest "redistributable" can be downloaded from the Microsoft website at no charge.

For those users who cannot, or choose not to, use the installer, a manual installation procedure is provided.

Vista and Windows 7 users must have and others may require administrator privileges when running the installer. If you need, but do not have, administrator privileges, the installer will "complain" when you attempt to install. To run the installer with administrator privileges, right-click on *Installer.exe*, select "Run As …" and select "administrator".

Windows 7 users who do not run the installer in the XP compatibility mode will receive a "this program may not have installed correctly" message upon closing the installer. Despite the error message, the installation completes normally and the message may be safely ignored.

When updating a previous installation of CYCD, the installer backs-up the previous version before overwriting it. If the installation procedure does not complete normally, the previous installation will be restored. As well, any AI traffic files (*traffic*.bgl*) in the existing *CYCD\scenery* folder will be retained.

If you retain an earlier version of CYCD by installing CYCD to a new folder, ensure only one of them is enabled in the Scenery Library at a time.

Installation is performed as follows. (It will take you far longer to read this than to do it! Buttons and other controls are enabled only when they can be used. Hence, they are progressively enabled as you make prerequisite selections.)

(a)   Unzip the file *CYCD_1nn.zip* to a temporary older ("folders" option enabled). DO NOT UNZIP TO THE INSTALLATION FOLDER and DO NOT REMOVE ANY FILES FROM THE TEMPORARY FOLDER. (Depending on your operating system, you may be able to omit the "unzip" and run *CYCD Installer.exe* directly from the *.zip* file.

(b)   Run (double-click on) *Installer.exe*. The installation dialog will appear.

(c)   Select the target MSFS version (FS9 or FSX). The installer will attempt to locate the main folder for that version. If successful, the path is shown in the FS Base Folder text box. If not, you must locate it manually using the FS Base Folder "Select" button before installation can proceed. If you plan to install for both FS9 and FSX, perform a separate procedure for each.

(d)   Select the type of installation (New Installation or Update Existing Version of CYCD.) If you select New Installation, the installer "recommends" *Addon Scenery\CYCD (2011)* as the Top Level Folder folder. You may install to any folder - **but recognize that the contents of the nominated folder will be deleted prior to installation**. If updating an earlier version of CYCD, the installer scans the *Addon Scenery* folder in an attempt to locate any previously installed versions. (The scan may take a few seconds, depending on the number of installed add-ons on your system.)   If the installer finds more than one previous installation, it will identify each in turn asking if that is the version you wish to update.

(e)   Select the add-on(s) with which you want CYCD to be compatible. If you plan to use CYCD with:

- only one compatible add-on, check the radio-button for the add-on, or
- several compatible add-ons (at different times), select Compatibility: Multiple and check the relevant add-ons. (Please note, these compatibility files must be independently enabled in the Scenery Library. Please refer to Section 4, RECONFIGURATION AND CUSTOMIZATION. The installer will, however, create the corresponding Scenery Library entries for you if Update Scenery Library is checked.)

If you do nothing, the installed CYCD will be compatible with the default Flight Simulator.

DO NOT CONFIGURE CYCD FOR ADD-ONS THAT ARE NOT INSTALLED ON YOUR SYSTEM OR THAT WILL NOT BE INSTALLED BEFORE USE OF CYCD. OTHERWISE, FLIGHTSIM MAY CTD.

(f)   De-select any optional scenery, static aircraft and AI you do not want. (See Section 4, RECONFIGURATION AND CUSTOMIZATION and Section 6, STATIC AIRCAFT and CUSTOM AI for a discussion of the optional components.)

(g)   Unless you uncheck Update Scenery Library, all necessary Scenery Library items will be created for you. If you checked the Compatibility - Multiple radio button, CYCD will be configured for default operation - since the installer does not know your preference. If that's not your intent, you'll have to uncheck the corresponding Scenery Library entry and check the one of you choice. If you wish the Scenery Library entry name to be other than "CYCD (2011)", edit the Name textbox. If, for some reason you do not wish a backup file of the Scenery Library to be made, uncheck Backup Scenery Library.

When all selections have been made, click the "Install" button. The installer will ask you to confirm the installation folder and compatibility selections, following which it will install and configure CYCD accordingly. Should you change your mind about an option or wish to change any aspect of the installation, simply select the desired new parameter and click the "Install" button again.

When finished, close the dialog. If you have checked the Delete Temporary files checkbox, all the temporary files except the installer will be permanently deleted without putting them in your Recycle Bin.

If the installer encountered difficulties and was unable to fully restore a previous installation, a folder named *CYCDInstall_bak* will also remain in the installation folder. In that folder is a copy of the installation folder prior to the installer being run.

Manual Installation - Users who do not wish to use the automatic process or who otherwise have difficulty in using the installer may manually install and configure standalone CYCD **other than for Orbx PNW compatibility** as follows

(a)   For a new installation, create a top-folder called *CYCD* or another name of your choice in your Flight Simulator's *Addon Scenery* folder or elsewhere. If upgrading from an earlier version of CYCD, delete everything from the old CYCD top-folder except any traffic files you wish to save. The traffic files should be moved elsewhere temporarily.

(b)   Create a subfolder named *CYCD* in the CYCD top folder. Copy into it the *\scenery* and *\texture* subfolders from the temporary *FS9* or *FSX* folder, as applicable.

(c)   For other than Orbx PNW compatibility, copy the *Compatibility Files* folder from the temporary *FS9* or *FSX* folder, as applicable, to the CYCD top-folder. If you plan to use CYCD with only one compatible add-on, also copy the files from the *\scenery* subfolder from the relevant *Compatibility Files* subfolder(s) into the *CYCD\scenery* folder. If you don't have any of the compatible add-ons, copy the files from the *Default\scenery.* (You may find Sections 4, RECONFIGURATION AND CUSTOMIZATION helpful in this regard.)

(d)   Copy the <u>contents</u> of the *Effects* folder to your FS9 or FSX *Effects* folder as applicable.

(e)   If you want static aircraft, copy the files from the temporary *Static AC\scenery* folder to *CYCD\scenery* and the folders from the *Static AC\texture* folder into *CYCD\texture.*

(f)   If you want the custom AI, copy the file(s) from the applicable temporary *AI\Traffic Files\FSn* folder into *CYYJ\scenery*. CYCD custom AI uses only stock aircraft, so the *AI\Aircraft* folder is empty.

(g)   If you saved any AI traffic files as noted above, they may now be copied back to the *CYCD\scenery* folder.

Folder Configuration – Following proper installation of CYCD, the following sub-folders/files will exist in the "installation folder", i.e., CYCD (2011) - or whatever you choose to call it:

- *CYCD* – the main scenery folder, containing the usual *\scenery* and *\texture* subfolders,
- *Compatibility Files* – containing the files that allow the features of CYCD to integrate seamlessly with other add-ons that control the "environment" collected into a series of sub-folders entitled *Enable for …* ,
- *Update Checker* - containing the Update Checker application and associated files,
- *Mipmap Manager* - containing the Mipmap Manager utility and associated files,.
- *halo.bmp* - a file to adjust the size of airfield light "dots" (see Section 7),
- *EULA.txt* - the end user license agreement, and
- a .pdf version of this user manual.

You may move any of these file/folders except *CYCD and Compatibility File elsewhere.*

Mipmap Manager - Mipmap Manager is a utility to add or remove mipmaps from a set of textures. It is a VB NET.Framework 3.5 application. (If NET.Framework 3.5 is not already installed on your computer, the "redistributable" can be downloaded from the Microsoft website at no charge.) Mipmap Manager does not affect the system registry. Nonetheless, Vista and Windows 7 users may need to run as administrator to use it. Mipmap Manager uses Martin Wright's mwgfx.dll and mwdll.dll, which are the same .dlls required by DXTbmp and other of Martin's utilities. (If you have not previously installed these .dlls, you may obtain them at no charge from http://mnwright.btinternet.co.uk .)

The operation of Mipmap Manager is straightforward. Execute *Mipmap Manager.exe.* Specify the source folder (i.e., the folder where the textures to be processed reside), either check Update Source Folder or specify a destination folder, indicate whether mipmaps are to be added or deleted and click Process Textures. If you wish to process only a single file or a subset of the files in the source folder, also specify a mask (using standard Windows wildcard characters) to define the file(s) of interest.

Update Checker - To check for updates for CYCD at any time, simply run *CheckForUpdate.exe* from the *Update Checker* folder.

Uninstalling CYCD - The installer only installs the files as noted above. It does not write to the Windows Registry or anywhere else. To uninstall CYCD:

- delete the CYCD folder from the Flight Simulator *Addon Scenery* folder (or wherever else you installed it),
- remove the CYCD entry(ies) from the Scenery Library.

3.   SCENERY LIBRARY

If you did not have the installer do it for you, add the folder *CYCD (2011)\CYCD* to the Scenery Library and, if you've selected the Scenery Library method for compatibility management (see next section), an additional entry for each required compatibility folder.

The CYCD Scenery Library entry(ies) **must** be placed above (be of higher priority than) those for Ultimate Terrain, ORBX FTX NW and any other scenery that includes terrain, roads and/or shorelines. If you have other add-ons that affect the CYCD area, their position in the Scenery

Library relative to CYCD will depend on what they do. Please refer their documentation. In general, unless they are intended to affect the CYCD (2011) scenery, they should be of lower priority than, i.e., be below, CYCD.

4. RECONFIGURATION AND CUSTOMIZATION

Management of add-on compatibility files - Compatibility files may be used in either of two ways:

- If you intend CYCD to be compatible with a new add-on, remove any existing compatibility files as described below and then copy the files from the relevant *CYCD (2011)\Compatibility Files\...\scenery* and *\texture* (if it exists and is not empty) into the *CYCD\scenery* and *\texture* folders.

- However, if you want the ability to quickly reconfigure compatibility for various add-ons (e.g., sometimes you'll have UTX Canada enabled and at other times you'll want to be compatible with Orbx's FTX PNW), you should not copy anything into the CYCD\Scenery folder. Instead, create a Scenery Library entry for each folder of interest in *CYCD (2011)/Compatibility Files.* If you installed with the Compatibility: Multiple and Update Scenery Library options enabled, these entries will have been created for you. Only one of these entries may be enabled at a time - in addition to CYCD (2011), of course. These entries should be at a lower priority in the Scenery Library than CYCD (2011).

Compatibility files are named:
> for FS9: *0_CYCD_Roads_(...)_VTPX.BGL*
> *CYCD_Roads_(...)_VPTL.bgl*
> *CYCD_Terrain_(...).bgl*
> *LD_1414.bgl*

> for FSX: *CVX_CYCD_Roads_(...).BGL*
> *CVX_CYCD_Terrain_(...).BGL*
> *LC_1414.bgl*

where (...) is the name of the abbreviated name of the add-on to which they apply. All files whose names follow these patterns should be removed from the *CYCD\scenery* folder before installing new compatibility files or converting to the Scenery Library method of compatibility.

Textures - Supplied textures for the scenery are mipmapped where the format allows. In some instances where two scenery add-ons are in close geographic proximity, undesirable effects have been reported if one uses mip-maps and the other does not. As well, some users prefer textures without mipmaps. Mipmaps can be added to/removed from some or all the textures using the supplied utility Mipmap Manager. Instructions for its use can be found in the Installation section of this manual.

Airfield Light Size - Some (including me) think the stock lights used to represent taxiway and runway lights in both FS9 and FSX are too big. The CYCD archive includes a file (*halo.bmp*) that will reduce the size of those lights. Please note, however, using this file will affect the lights at all airports, not just CYCD. If you want to try it, copy this file to your *FSn\texture* folder - after backing-up the current *halo.bmp* so you can easily revert to the original if necessary. (I obtained the file from an attachment to a fsDeveloper.com post. Unfortunately, I have been unable to find that post again in order to give proper credit. So, thank you, whoever you are.)

Night Approach Beacons - Night approaches to CYCD from the south are rather intimidating being dog-legged with a high hill on either side. Transport Canada has installed five flashing red beacons to help guide the way. CYCD includes these beacons. However, so as to be visible from a distance, they are very bright - even in the daytime - and may be distracting. They are controlled by the file *obj_Beacons_FXn,bgl* which should be deleted or disabled if you don't want the beacons.

Fence - The perimeter fence is of the ground-hugging variety, generated by FenceBuilder PRO (a payware application by the author and available from Silver Cloud Publishing, Flight 1 and other

fine retailers.) Due to the limited amount of other scenery at CYCD, the addition of the perimeter fence is unlikely to cause low-FPS issues. However, should you want eliminate the fence, disable/delete the file *FBP_CYCD_Perimeter.bgl* in the *CYCD\scenery* folder.

Fuel Triggers - The whole of the terminal apron is a fuel-trigger area. MSFS does not permit user aircraft doors to remain open in fuel trigger areas. If you want your aircraft automatically refuelled, enable *obj_FuelTrigger.bgl*. If you want to leave the user a/c doors open while parked in these areas, disable *obj_(Opt)_FuelTrigger.bgl* (but keep an eye on your fuel gauge).

Other Customization - Some users may be tempted to modify the airport definition files (*ADE_CYCD_100_....bgl*). I strongly recommend against that since, regardless of your skill level, any changes you make will have to be re-done if they are to be used with any future versions of CYCD. Instead, unless you must change the runway/taxiway/apron configuration (I can't image why you'd need to other than to add/modify parking) , implement your changes as a separate add-on, placed above CYCD in the Scenery Library.

5. IDIOSYNCRACIES / KNOWN ISSUES

As at the real CYCD, most aircraft parking is "drive-through", implemented using two invisible, overlay taxiway networks - one for arriving traffic, the other for departures. Consequently, even though arriving and departing AI traffic in close proximity may appear to be on the same taxiway and you would expect one to give way, they are not on the same taxiway as far as MSFS is concerned. Hence, they may appear to collide. This is the price for drive-through parking.

Also, it is necessary with drive-through parking to have two hold-short nodes at each hold-short location - one in the arrivals network, the other in the departures network. Usually, the one in the departures network is placed just before (on the way to the runway) the one in the arrivals network which, in the case of CYCD is used as the visible taxiway network. But, when dealing with small aircraft, the departure nodes must be placed slightly to the runway side of the arrivals node to ensure that arriving aircraft remain on the arrivals network. Consequently, departing AI may hold-short on, rather than before, the visible hold-short node.

6. STATIC AIRCRAFT AND CUSTOM AI

CYCD contains a selection of static aircraft and operating AI.

There is one custom static aircraft (a "retired" Catalina) and several based on stock aircraft models - all created by SAMM. (SAMM is a utility to convert flyable aircraft models into static scenery models. It was developed by this author and is available from popular download sites.) The static aircraft models are contained in the file *CYCD\scenery\lib_Static AC.bgl* and placed by the file *CYCD\scenery\obj_Static AC.bgl*. The textures for these static aircraft are contained in appropriately-named folders in the *CYCD\texture* folder. If you don't like my arrangement, simply delete the file *obj_Static AC.bgl* and replace it with your own. Of course, you may add additional static aircraft from the library file using any object placement utility. (The file *CYCD\scenery\lib_Static AC.txt* is included for use by your object placement utility, since the library is compiled for FS9.) If you want to use different static aircraft, then delete all those files/folders (or don't check Static Aircraft on the installer).

The AI, also based on stock aircraft that are available in both FS9 and FSX, provides TNG traffic (a single aircraft departing on the hour and performing touch 'n gos for about fifteen minutes. The traffic is enabled at an air traffic density of 50% (GA in the case of FSX). It is controlled from the traffic file *CYCD\scenery\Traffic_CYCD_TNG_FSn.bgl*. This file may be edited with AI Flight Planner (also by the author and available from popular download sites.) If you don't want the AI, delete this file (or don't check AI on the installer).

Several other AI packages also generate traffic at CYCD, namely:

- BC Regional AI by the author (available from Avsim and Flightsim), simulating the operation of scheduled airlines servicing CYCD,
- the custom AI included with the author's CYYJ contains a couple bizjets based at CYCD and
- the custom traffic file included with Ken Peter's CYCD.

7.   SUPPORT

CYCD is freeware. Hence, support will be limited. Nonetheless, I would like to be made aware of any problems you discover in CYCD and will make reasonable effort to respond. As well, I welcome your comments suggestions for improvements and, where warranted, your criticisms.

The website http://stuff4fs.com/CYCD is the primary mechanism for delivering support for CYCD. Among other things, it documents known problems with the most current release and, where available, provides workarounds and patches. Please check the site before reporting any problems or suggesting new features.

8.   ACKNOWLEDGEMENTS

Thanks (in no particular order) to Luis Sa for SBuilder and SBuilderX, Jon Masterson for ADE, Martin Wright for DTXBmp, Arno Gerretsen for the animated windsocks and Richard Ludowise for TCalc and - all of which were used in the development of CYCD and, of course, Ken Peters.

As well, I wish to give credit to the authors of the objects used in CYCD (2011) - and in Ken's earlier version of CYCD.

- GSE API Macro Set by Tom Burnett (tug, cargo loader and baggage carts).
- Lights and cargo crates by Frank Betts
- Airport Ramp light by Matt C. Johnson
- Extra 0bjects Library Version 1.0 By Lars Hoyer (Cars, pallats and barrels).

Finally thanks to Mike Stone for his model of the Consolidated PBY-6A Catalina and to Henry William for the repaint used.

Enjoy,
Don Grovestine

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Other airports by Don Grovestine

CYYJ (2011) - Victoria International, British Columbia, Canada
CYQQ (2010) - Canadian Forces Base Comox, British Columbia, Canada
CZBB (2011) - Boundary Bay, British Columbia, Canada

End User License Agreement (EULA)

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You may not:

- upload CYCD (2011), whether or not modified, in whole or in part, to any file distribution system,
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- incorporate CYCD (2011) in whole or in part into any commercial product or facility, "shareware" or "freeware", or any other product or facility for which there is a charge of any kind,

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