

COLLINS AEROSPACE CHECKLIST EDITOR OVERVIEW

FOR INFORMATION USE ONLY

JANUARY 2019



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WHAT IS AN ELECTRONIC CHECKLIST?

- An Electronic Checklist is simply an electronic version of the paper checklist (displayed on the MFD) the pilot uses to ensure procedures are completed in a certain order.

WHAT IS CHECKLIST EDITOR?

- The Rockwell Collins Checklist Editor software is a PC-based application that creates a set of pilot checklist files that can be loaded into an aircraft LRU for the purpose of electronic checklists.
- This software is the central component needed to create pilot checklist files. It consists of a specialized word-processor for entering text into the checklists. The files to be created use information from the aircraft set-up module for each specific aircraft type. The aircraft set-up module contains the settings used to correctly draw the checklists on the cockpit display.
- Originally created for the OEM's to create electronic Checklists for the end customer.

CHECKLIST EDITOR VERSIONS

MDC-4000/AMS-850 Checklist Editor (32 bit)

- Users Guide 523-0806062
- Used in Pro Line 4 installations

Checklist Editor Version 3.11

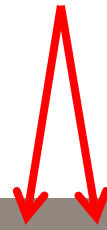
- Part Number 815-5453-006
- Started with Pro Line 21 installations
- MDC-3110

Checklist editor version 4.0 (Requires applicable CLA Acft Module)

- Part Number 815-5453-101
 - MDC-3100
 - MDC-3110
 - MDC-4100
 - MDC-4110
-
- RCCT-6000 (Fusion – not included in this presentation)

REGISTER FOR PORTAL ACCOUNT

- Login: <https://www.rockwellcollins.com/selfhelp> or www.shopcollins.com
 - Register or Log In
- Help: http://www3.rockwellcollins.com/docs/help/account-management/#Logging_in



Welcome

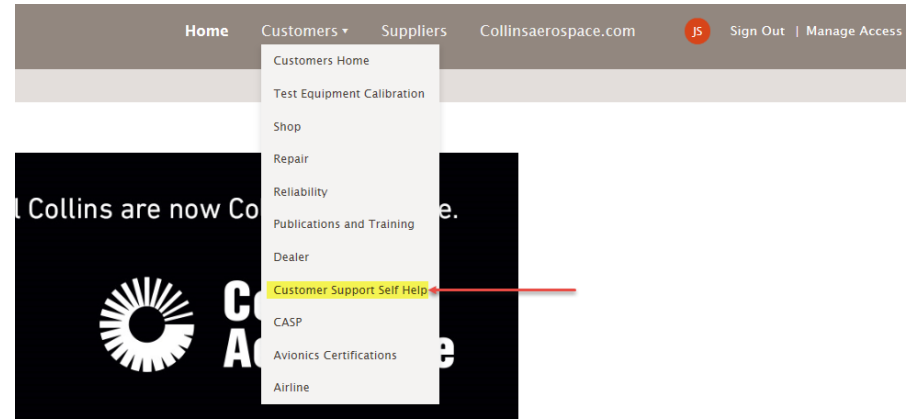
UTC Aerospace Systems and Rockwell Collins are now Collins Aerospace.

TOGETHER, WE ARE
REDEFINING AEROSPACE

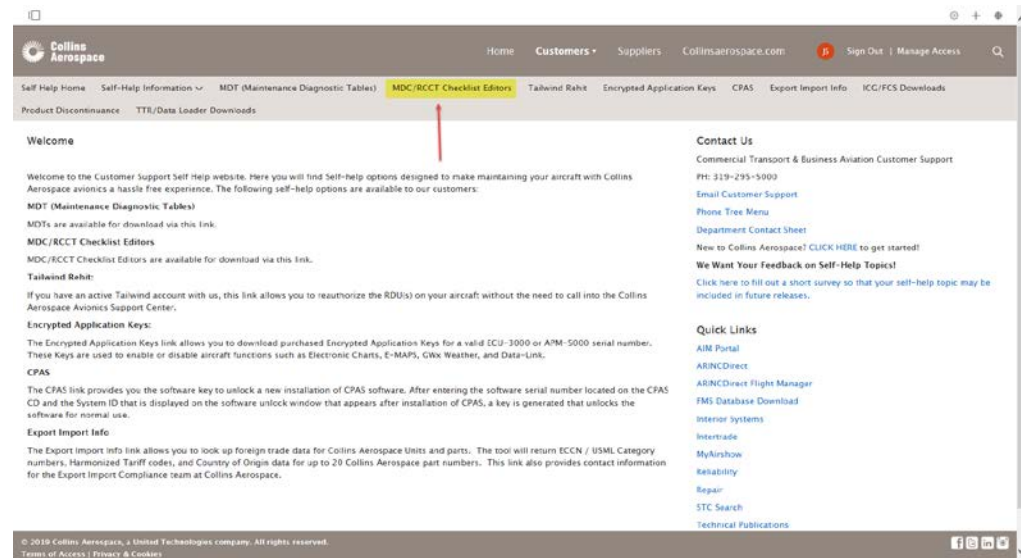


DOWNLOADING CHECKLIST EDITOR

- Select Customer Support Self Help from Customer dropdown



- Select MDC & Checklists
 - If tab is not visible go to Manage Access and check the box for Maintenance Diagnostic Computer and select submit at the bottom of the page



DOWNLOADING CHECKLIST EDITOR

- Enter applicable aircraft information and select Search
- Available checklist folders will then appear
 - Select the + next to the folder to view available checklists

Maintenance Diagnostic Computer

| | |
|-------------------------------|----------|
| Aircraft Type* | King Air |
| Avionics System Installed* | PL21 |
| Aircraft Serial Number* | 12345 |

Search

Please select your download option.

- + Maintenance Diagnostic Table
- + **Check List Editor 4.0**
- + **Check List Editors**

DOWNLOADING CHECKLIST EDITOR

- Available Checklists

- **FDS-2000 V2.11**
- MDC-4000 for PL-4 platforms with MDC-4000 units
- V3.11
- V4.0

Note:

- CL-300 V6.0 (SB510) indicates MDC 4110 P/N 822-1988-104
- Use CLE 4 for F20/50 & 50EX/2000/2000EX
- King Air use CLE 4.0 with MDC P/N -004 and above

– Check List Editor 4.0

- 50EX/2000EX Checklist Editor Application
- Cessna XLS+ (-10) Checklist Editor Application
- Checklist Editor 4.0 (download first and use with aircraft application file)
- Falcon 20/50 Checklist Application
- G-150 Checklist Editor Application
- King Air Checklist Editor Application

– Check List Editors

- CJ-1/2 Checklist Editor V3.11
- CJ-3 Checklist Editor V3.11
- CL-300 Checklist Editor V2 (V5&V5.2 Aircraft)
- CL-300 Checklist Editor V3.11 (V6.0 Aircraft)
- CL-601 Checklist Editor V3.11
- CL-605 Checklist Editor V3.11
- CL-605 Checklist Editor V3.11 Batch File Patch
- ENCORE+ Checklist Editor V3.11
- Falcon 20/50 Checklist Editor V3.11
- FDS-2000 Checklist Editor V2.11
- G-150 Checklist Editor V3.11
- Hawker Checklist Editor V3.11
- King Air Checklist Editor V3.11
- Learjet 60 XR Checklist Editor V3.11
- MDC-4000 Checklist Editor (32 Bit)
- Piaggio P-180 Checklist Editor V3.11
- Premier IA Checklist Editor V3.11

DOWNLOADING CHECKLIST EDITOR

- Select desired checklist and open or save

Please select your download option.

- + Maintenance Diagnostic Table
- + Check List Editor 4.0
- Check List Editors

| | |
|--|---------|
|  CJ-1/2 Checklist Editor V3.11 | 4592 KB |
|  CJ-3 Checklist Editor V3.11 | 4592 KB |
|  CL-300 Checklist Editor V2 (V5&V5.2 Aircraft) | 4651 KB |
|  CL-300 Checklist Editor V3.11 (V6.0 Aircraft) | 4592 KB |
|  CL-601 Checklist Editor V3.11 | 4592 KB |
|  CL-605 Checklist Editor V3.11 | 4592 KB |
|  CL-605 Checklist Editor V3.11 Batch File Patch | 1 KB |

Do you want to open or save CL-605 Checklist Editor V3.11.zip from portal.rockwellcollins.com?

Open

Save

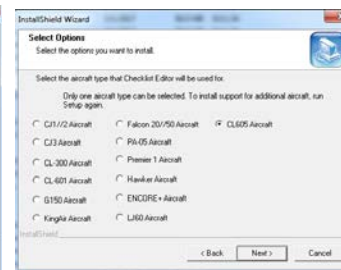
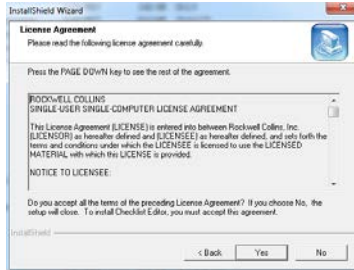
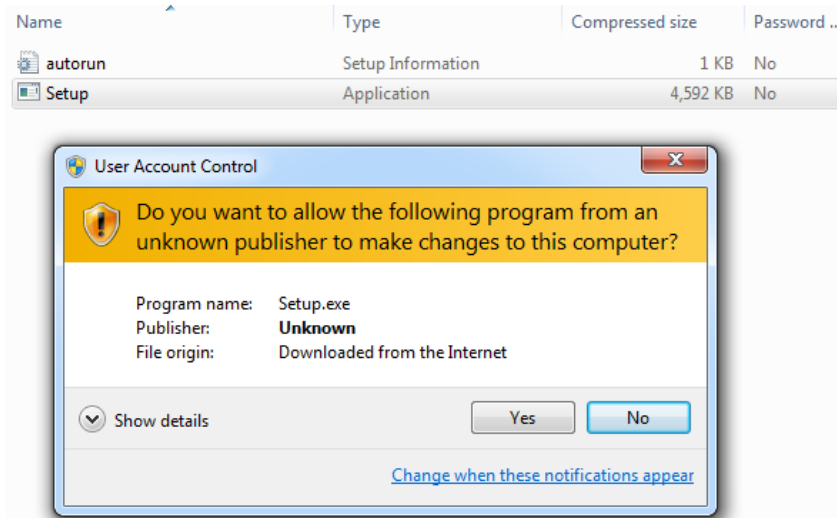


Cancel



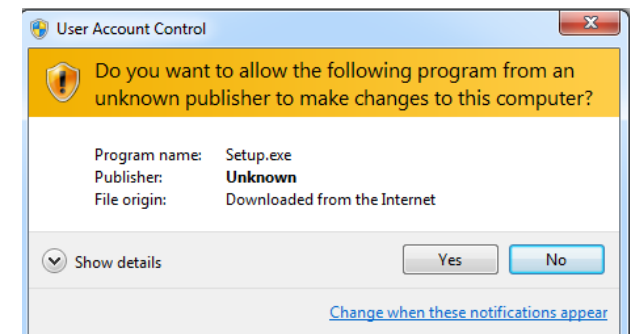
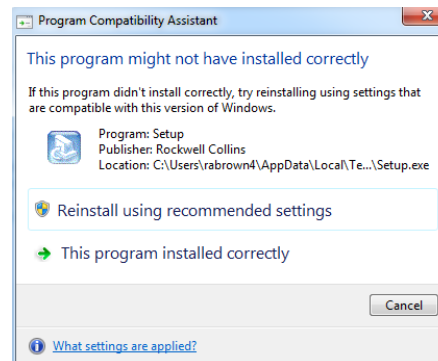
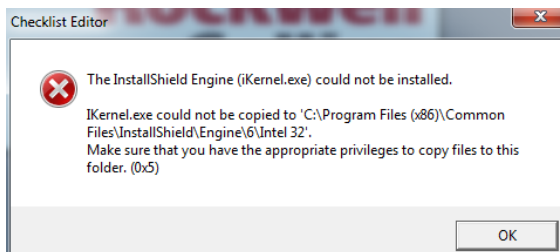
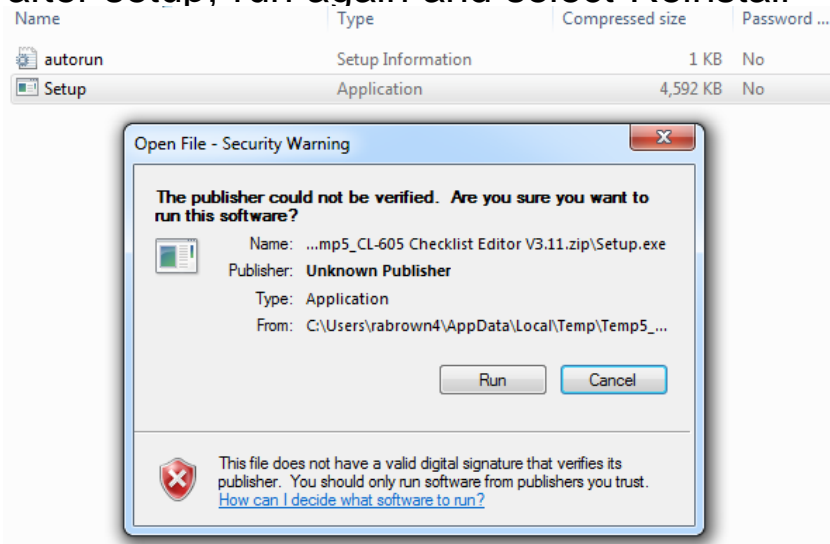
INSTALLING CHECKLIST EDITOR

- Select Setup and follow the prompts



INSTALLING CHECKLIST EDITOR CONT

- If you see this after setup, run again and select Reinstall

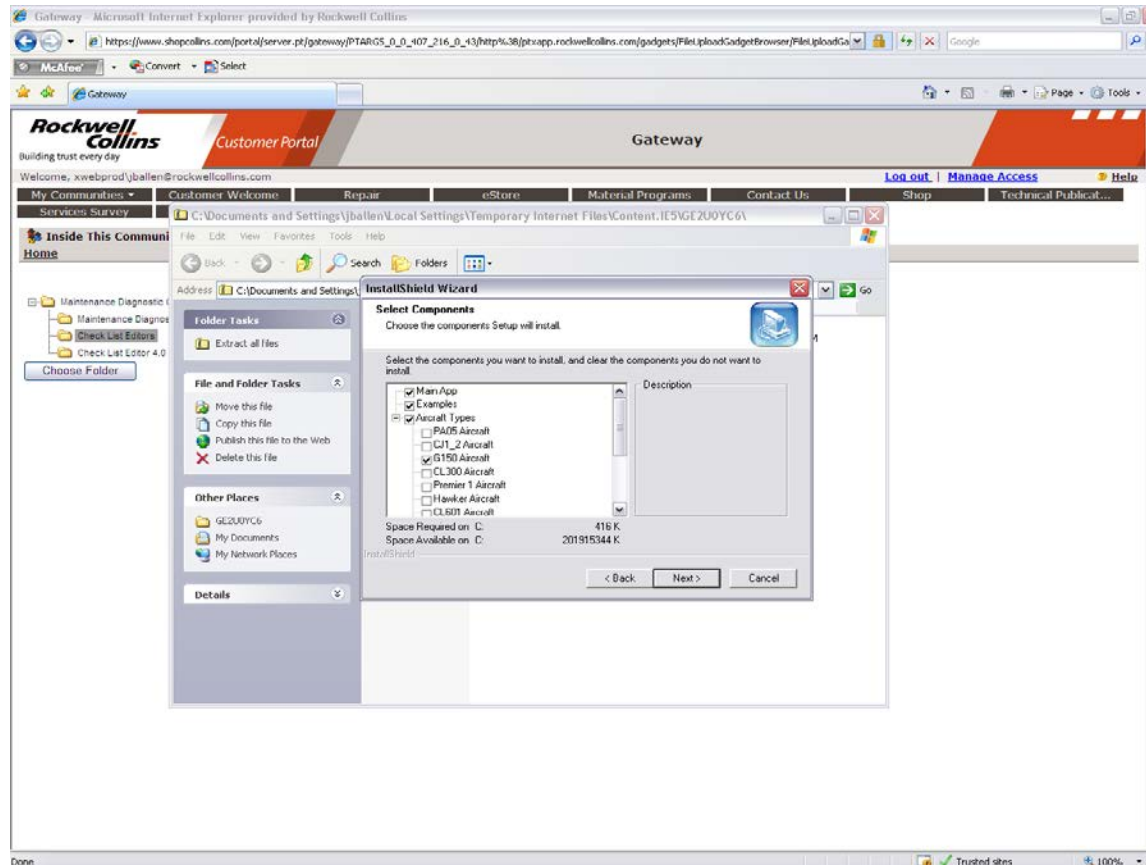


INSTALLING CHECKLIST EDITOR CONT

- After the Installation runs, An Icon will be created on your computer desktop
- Double click on the Icon and the Checklist Editor software will load
 - You can then import a saved .cle file or create new

ADDING MORE AIRFRAMES

- Run the installation again and select the other airframes you wish to add

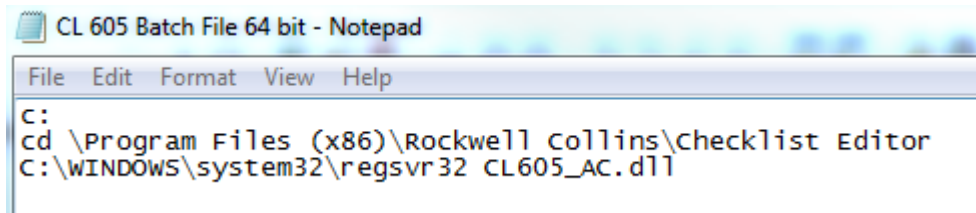


CL605 BATCH FILE

- If installing the CL605 Checklist Editor, the batch file will also need to be downloaded before the editor will work correctly.
 - The batch file on the portal is only for 32 bit systems
 - Batch file will need to be modified to operate on a 64 bit system
 - See next two slides for details
- You should then be able to open the Checklist Editor program and select CL-605 without using a password.
- All other airplanes do not require the batch file

CL605 BATCH FILE EDIT

- How to edit CL605 Batch File
- On the batch file:
 - Right click on the file and choose "Edit"
 - Change it to this:
 - c:
cd \Program Files (x86)\Rockwell Collins\Checklist Editor
C:\WINDOWS\system32\regsvr32 CL605_AC.dll
- (will look like this)

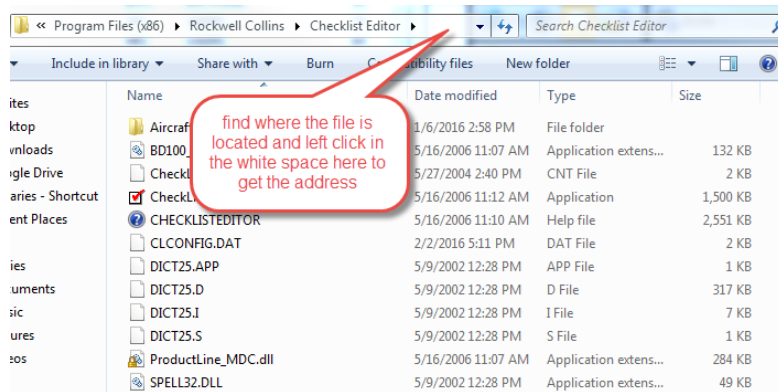


```
CL 605 Batch File 64 bit - Notepad
File Edit Format View Help
C:
cd \Program Files (x86)\Rockwell Collins\Checklist Editor
C:\WINDOWS\system32\regsvr32 CL605_AC.dll
```

- Save and then run as administrator

CL605 BATCH FILE INSTALLATION

- Right click on the file and **run as administrator**
 - You will get a message “DllRegisterServer in CL605_AC.dll succeeded.”
 - Now open the checklist editor and you should see the CL605 in the dropdown
 - If not it might be because your CLE is in a different location.
 - locate the checklist editor then change the address in the batch file to match



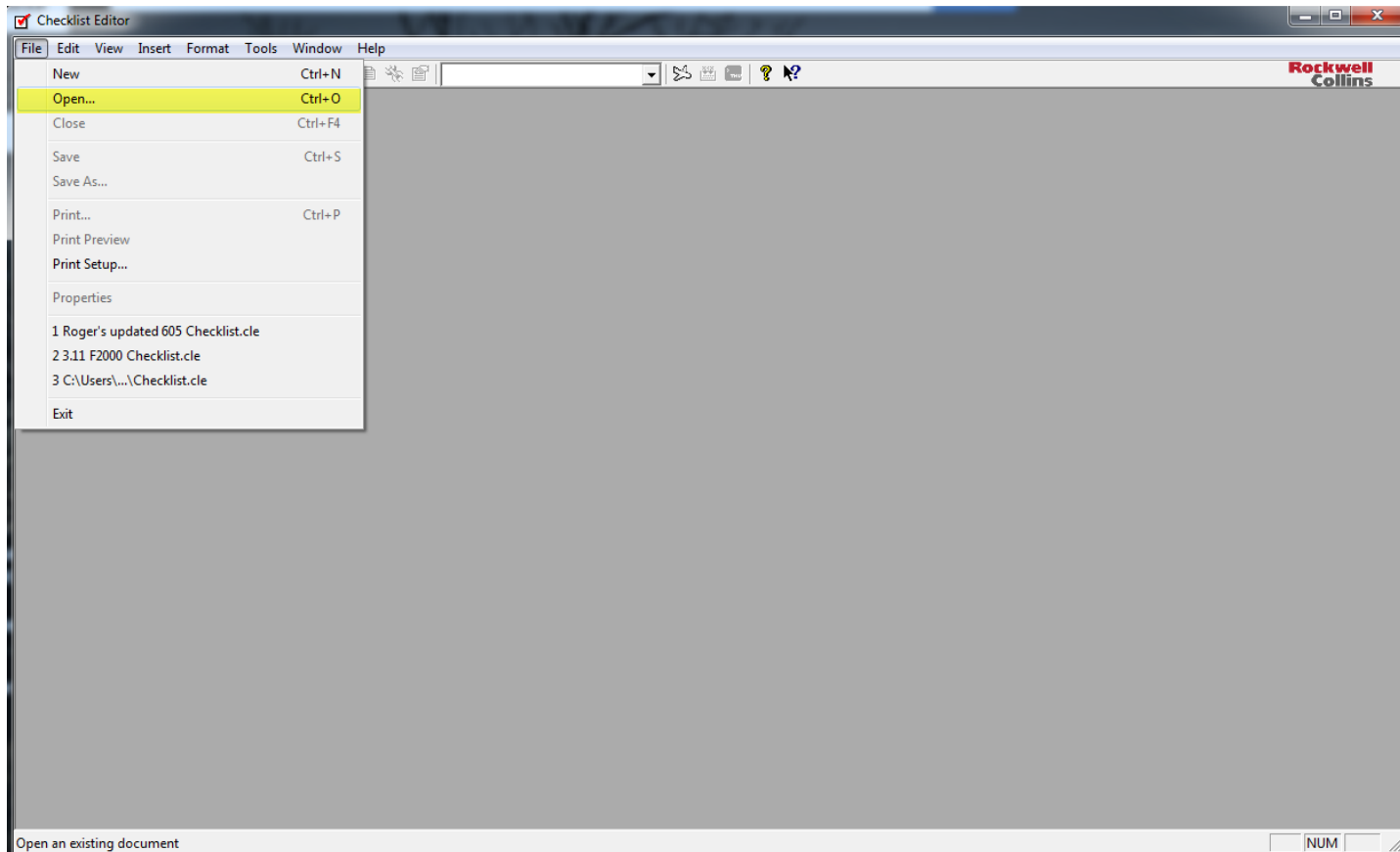
- The address you see is what the batch file will need to look like
 - Example:
- You will then need to rerun the batch file

POINTS TO REMEMBER

- Keep copy of the .cle (editable) file.
 - Cannot download .cle file from airplane
- MDC repairs will clear/wipe the checklist files
- Instruction manual is in the “Help Topics” section of program
 - Windows XP Compatible. Windows 7 needs help files loaded
 - WinHlp32.exe is required to display 32-bit Help files that have the ".hlp" file name extension. To view .hlp files on Windows 7, install this application
- Have to uninstall 4.0 if you want to use 3.11 again & vice versa
- CJ4 has a CKL-550. Cessna supplied checklist is stored in CKL-550 instead of the MDC
- G150 Checklist is locked for editing
- XLS+ cle files. Need to remove the “+” sign from the loadable files after the build sequence
- OBDS (On Board Data Systems) offers service to create and update checklists.
www.obds.com

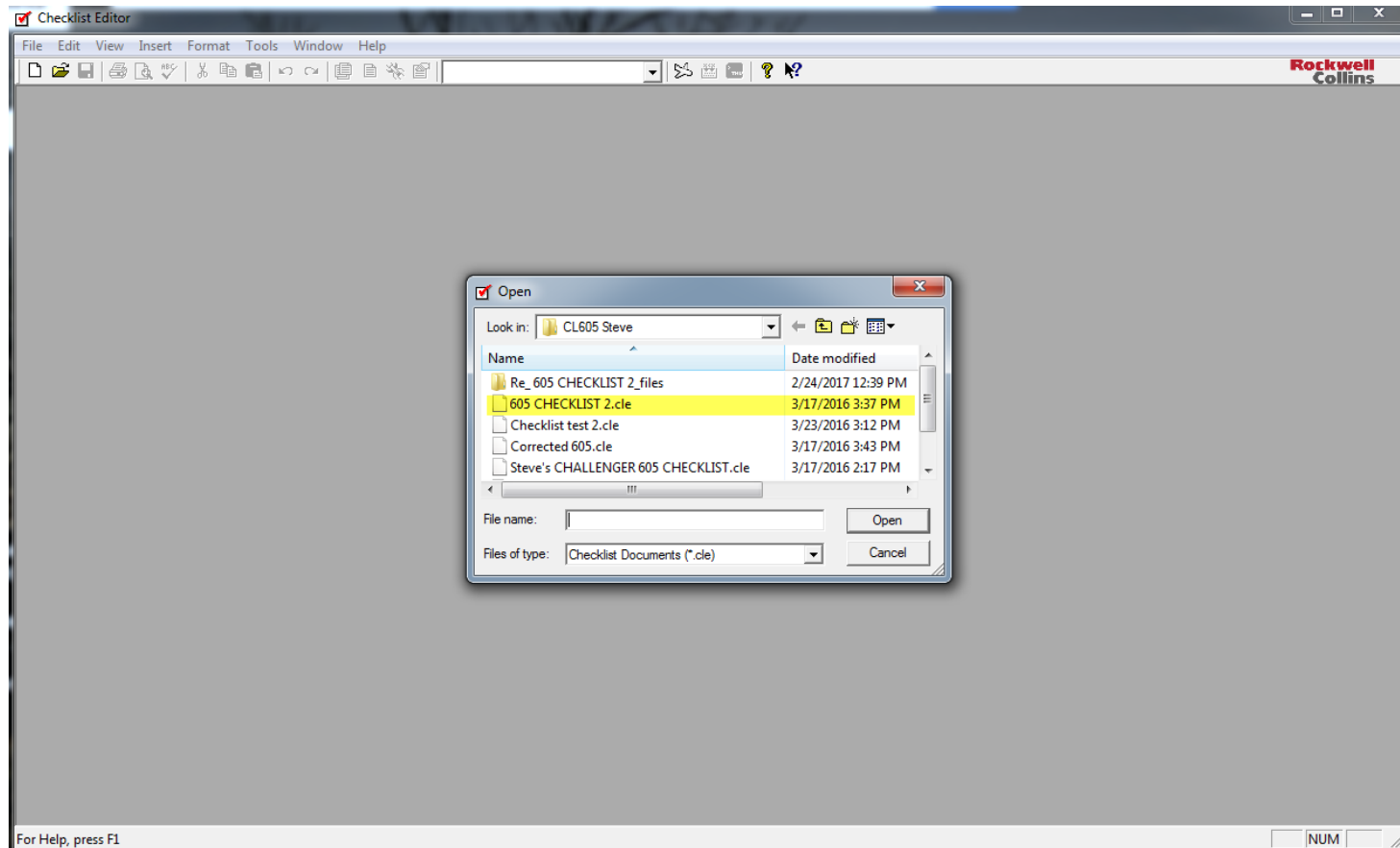
IMPORT AN EXISTING CLE FILE

- File, Open



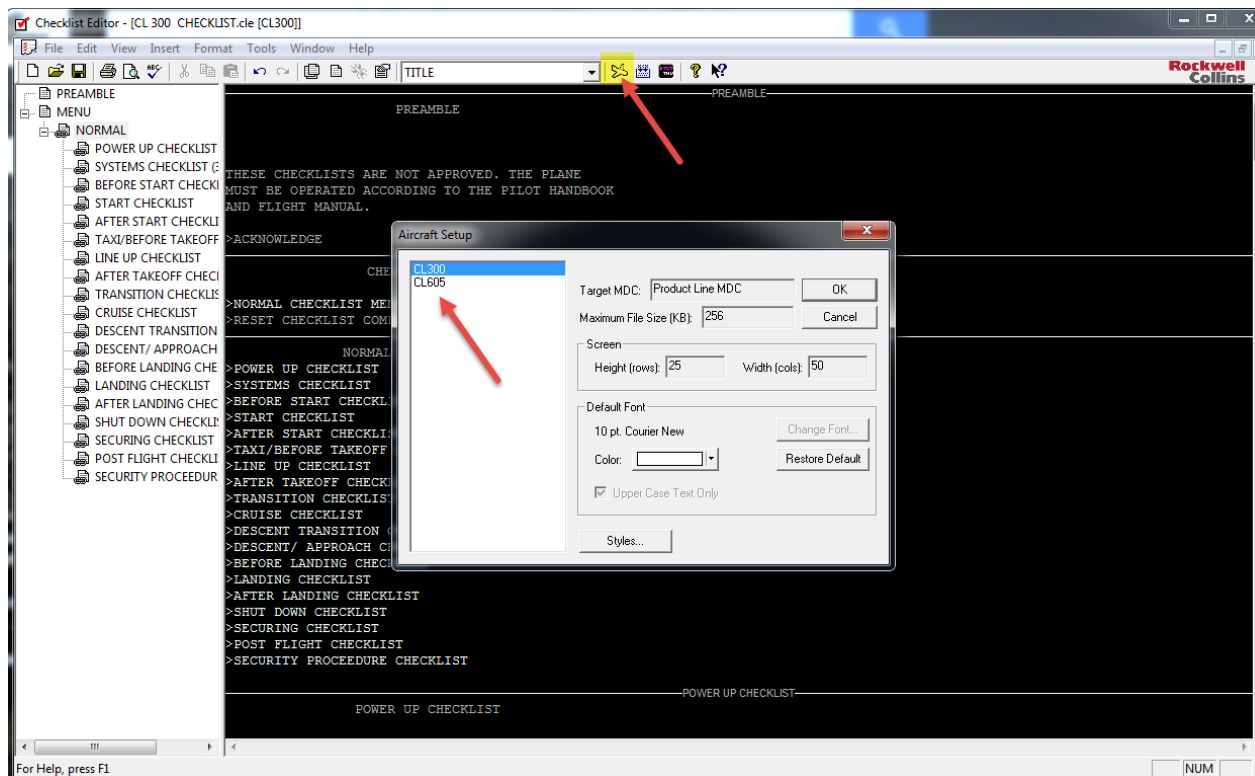
IMPORT AN EXISTING CLE FILE

- Find the file you wish to open and select



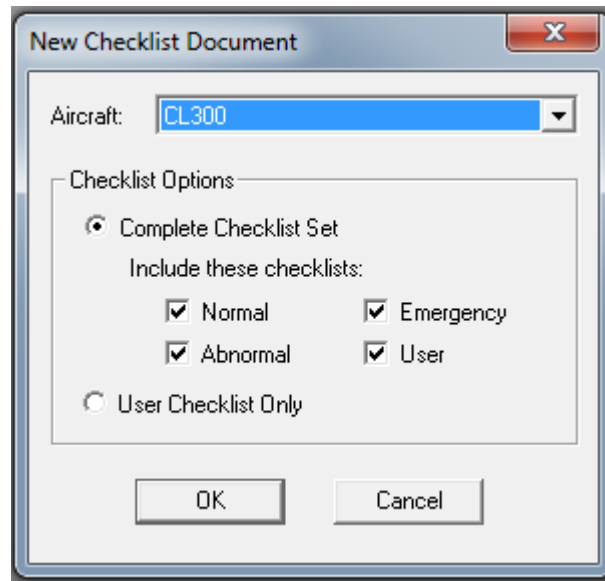
IMPORT AN EXISTING CLE FILE

- If you have multiple aircraft, Once the file is open, select the aircraft setup icon and aircraft type
 - This will reformat the checklist text for that aircraft



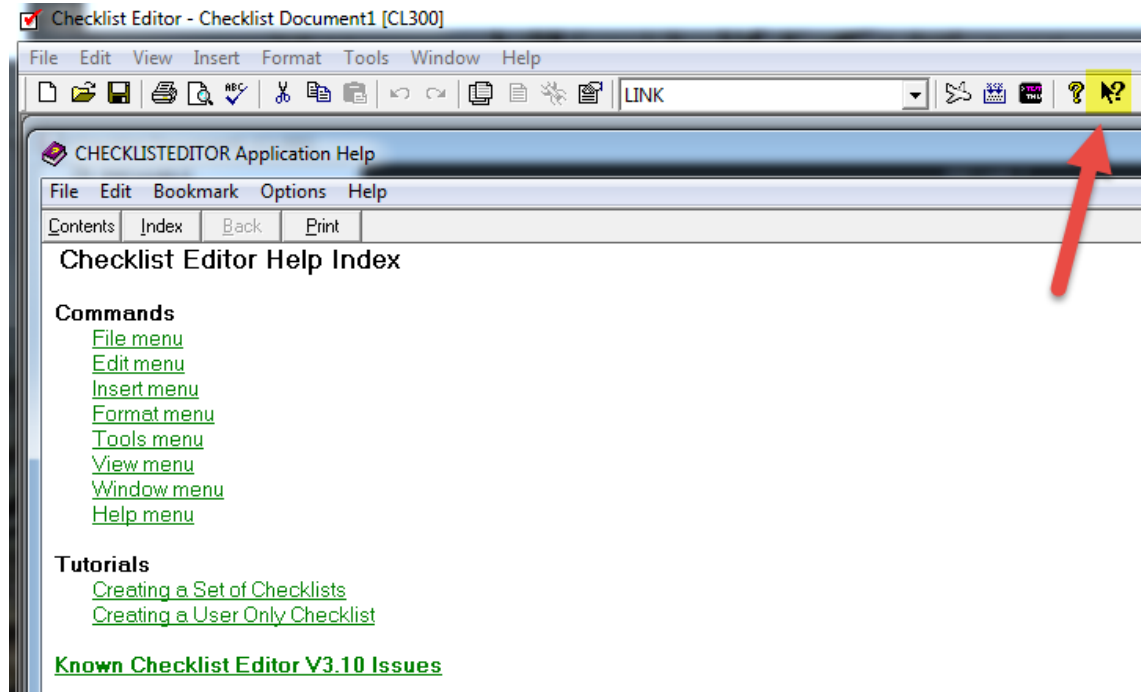
CREATE A NEW CHECKLIST

- Select FILE, NEW and then select airframe type
- Select Complete Checklist Set and deselect the checklists you do not need
- If you select all, each checklist will require at least one selectable item
- NOTE – Do not select User Checklist Only
 - Will not create Preamble in loadable files & will not load to aircraft



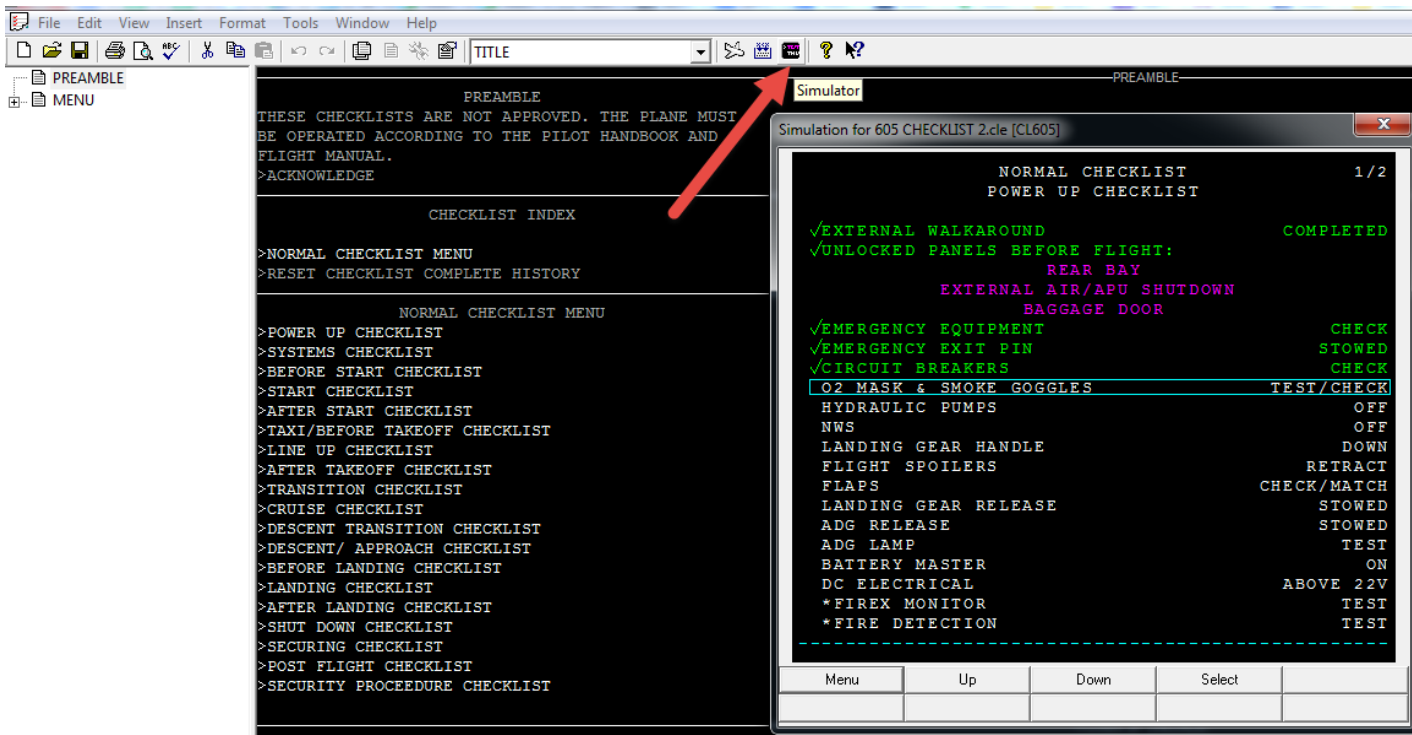
CREATE A NEW CHECKLIST

- Use the help topic tab for instructions on how to build a new checklist or edit an existing checklist
- If this does not work, download the WinHlp32.exe



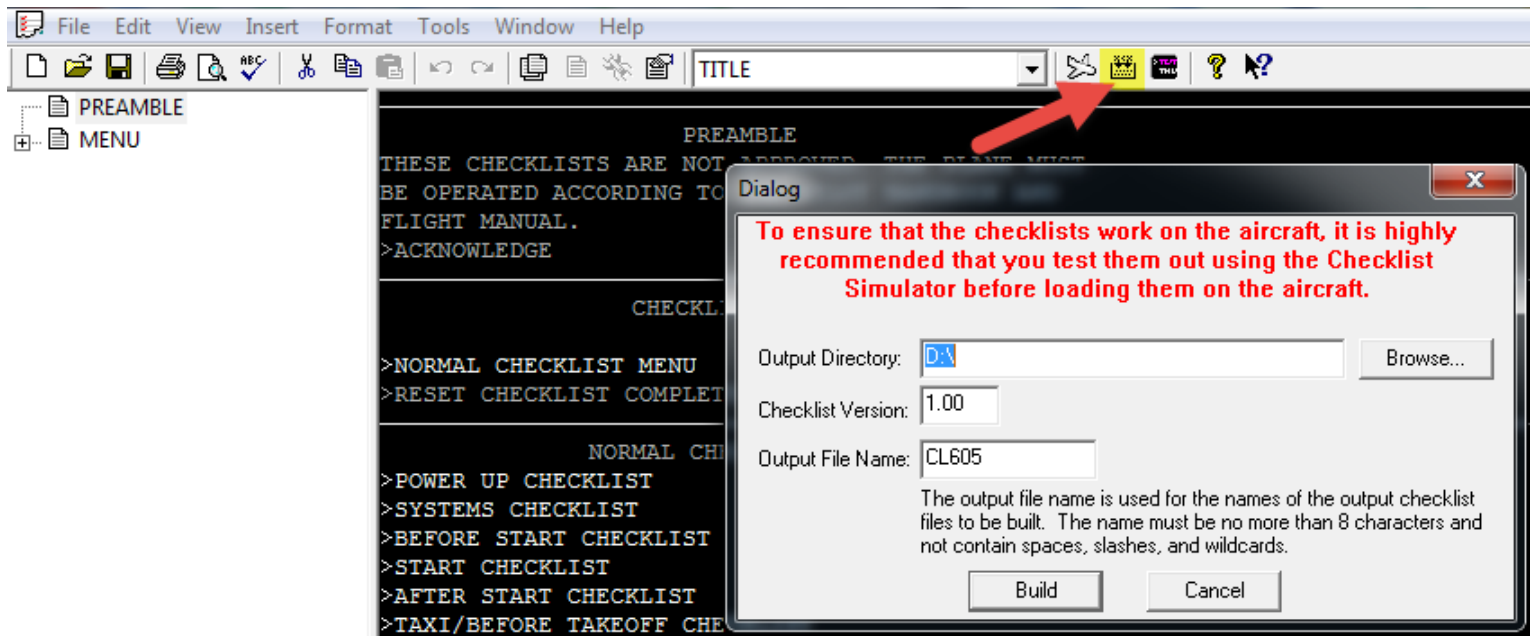
SIMULATE CHECKLIST

- Use the Simulator to ensure the checklist will operate correctly prior to building the loadable files
- Simulator will also prompt you to save the .cle file



BUILD LOADABLE FILES

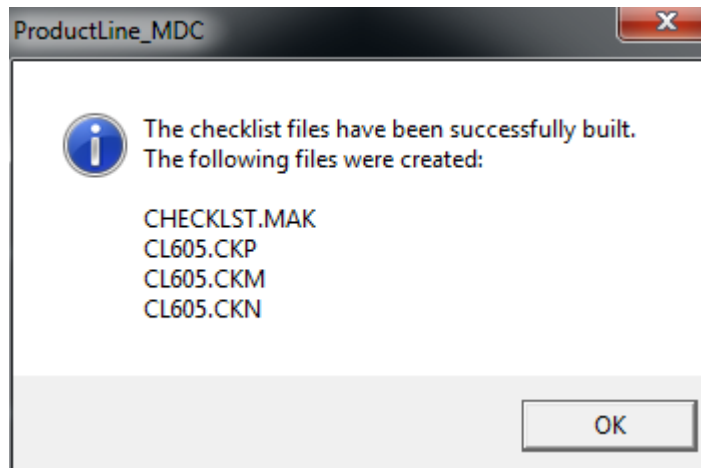
- Select Build tab and select a place to save the loadable files
 - Save to computer or directly to root directory of memory stick or other media to be loaded into aircraft MDC
 - Select Build



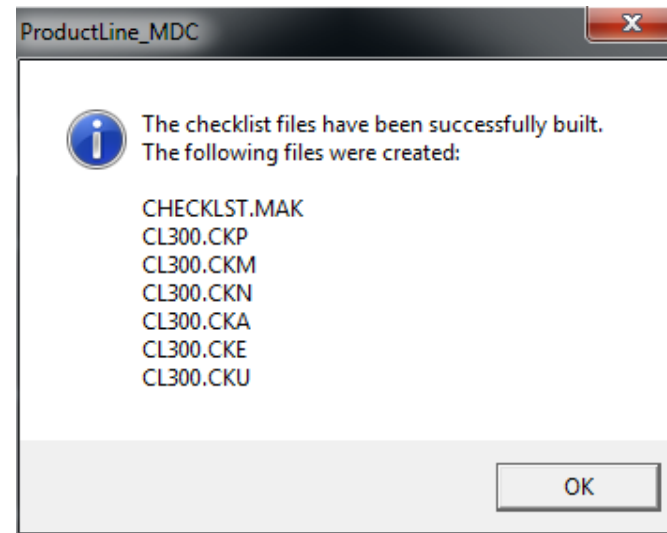
BUILD LOADABLE FILES

- A set of loadable files will be generated
 - Number of files will vary depending on which checklists were created
 - If .CKP (preamble) is missing, file will not load in aircraft

Normal Only Example



All Example

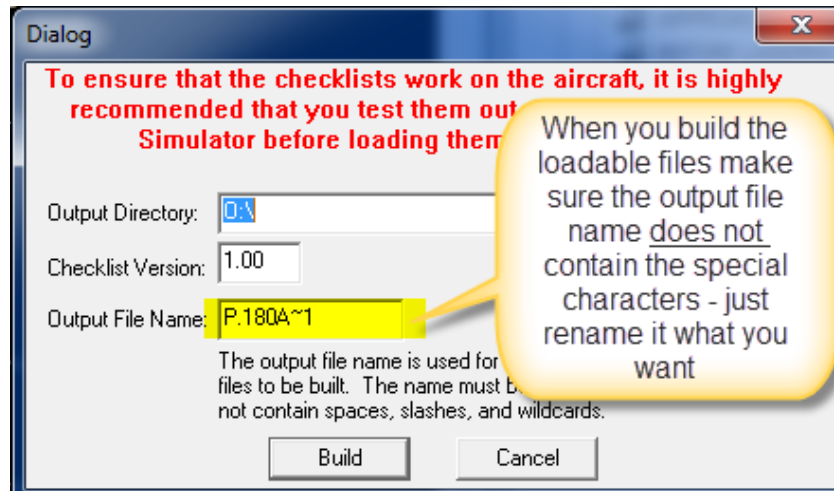


TROUBLESHOOTING

- Aircraft Load Errors
- Build Errors
 - Checkable Item
 - Unassigned Links
- Menu Edits
- Issues and Workarounds
- Run as Administrator

TROUBLESHOOTING

- Aircraft Load Errors
 - Make sure they have the correct checklist editor
 - Make sure they are loading the loadable files and not the .cle
 - Make sure the checklist includes the preamble
 - Load the files in the root directory of the USB (formatted to FAT32)
 - CDU can usually find the files in a folder but the MDC cannot
 - Check name of loadable files
 - Cannot contain more than 8 characters, spaces, slashes or wildcards



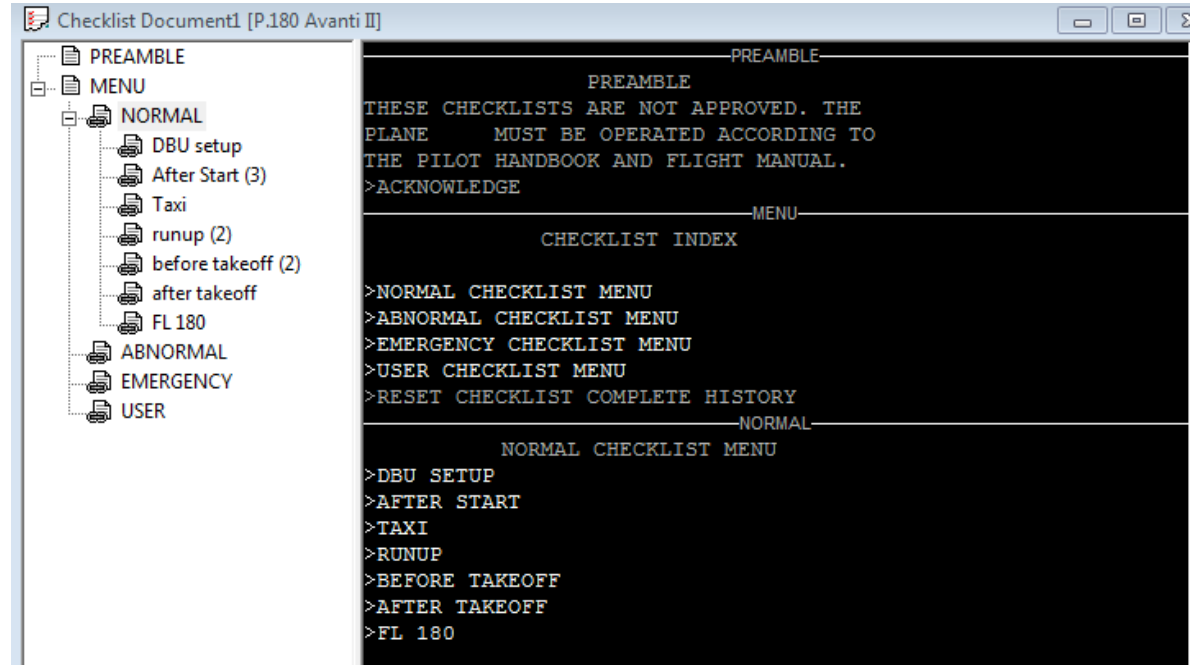
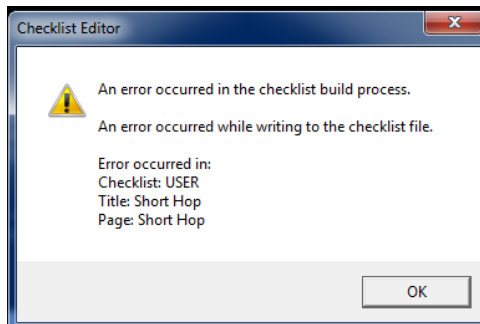
TROUBLESHOOTING

- **Build Errors**
 - Every page in the checklist is required to have a selectable item on it. If a page is encountered during the build process that does not have a selectable item on it, a build error will occur. To fix this, you can add a single checkable item (which is a selectable item) to the page with the error
 - Unassigned links are not allowed in a checklist build. If your checklist document has an unassigned link in it, a build error will occur. To fix this, either properly assign the link, or change the style of the line with the unassigned link to a non-linkable style (e.g. Normal)

TROUBLESHOOTING

- Build Error – Checkable Items
 - All checklists must have at least one “checkable item”
 - Check formatting of checklist items, checkable items, normal, multi item etc.

Error Message



TROUBLESHOOTING

- Build Error – Checkable Items

The screenshot shows a software interface for building checkable items. The left pane displays a tree structure with the following items: PREAMBLE, MENU (selected), NORMAL, Before start (9), ABNORMAL, EMERGENCY, and USER. Under USER, there is a Placeholder Title. The right pane shows a preview of the checklist content, which is divided into sections: PREAMBLE, CHECKLIST INDEX, and NORMAL CHECKLIST MENU. The PREAMBLE section contains the text: "THESE CHECKLISTS ARE NOT APPROVED. THE PLANE MUST BE OPERATED ACCORDING TO THE PILOT HANDBOOK AND FLIGHT MANUAL. >ACKNOWLEDGE". The CHECKLIST INDEX section contains: ">NORMAL CHECKLIST MENU", ">ABNORMAL CHECKLIST MENU", ">EMERGENCY CHECKLIST MENU", ">USER CHECKLIST MENU", and ">RESET CHECKLIST COMPLETE HISTORY". The NORMAL CHECKLIST MENU section contains: ">BEFORE START". The BEFORE START section contains: ">✓PARKING BRAKE/CHOCKS", ">✓PREFLIGHT", ">✓CIRCUIT BREAKERS", ">✓ESS/RH BUS TIE", ">✓GEN#1, APU, BATT, GEN #2", and ">✓BATTERY (22 MIN)". A red callout box with a red border and text explains: "To create the checkable items under Before Start, select Checkable Item from the drop down (creates check mark) and enter the desired action. Repeat for each checkable item." A red arrow points from the callout box to the "BEFORE START" section of the checklist.

TROUBLESHOOTING

- Build Errors – Unassigned Links
 - File cannot contain any “unassigned links”

Right click and delete Title
This creates the unassigned link message

Right click & delete related menu item "Test 1"

Then to remove the > symbol, go to the top drop down box and select "normal".
This should remove the > symbol as well as the unassigned link message

TROUBLESHOOTING

- How to edit a Menu item

The screenshot displays a software interface with a menu tree on the left and a main display area on the right. The menu tree includes a 'USER' folder containing 'Test 2' and 'Test 3'. A 'Properties' dialog box is open, showing the 'Page' tab with 'Page Name' set to 'Test 1'. A red callout box points to the 'Test 2' item in the menu tree and the 'Page Name' field in the dialog, containing the text: 'To change/edit Title, right click on the title and select "Page Properties" and rename. This will update the title on the left and right columns (white/black areas)'. The background shows a dark interface with white text, including 'PREAMBLE', 'THESE CHECKLISTS', 'PLANE MUST BE O', 'PILOT HANDBOOK', '>ACKNOWLEDGE', '>NORMAL CHECKLIS', 'MENU', 'COMPLETE HISTORY', 'CHECKLIST MENU', and 'HECKLIST MENU'.

TROUBLESHOOTING

- How to edit a Menu item

The screenshot shows a software window titled 'CHECKABLE ITEM' with a menu bar (File, Edit, View, Insert, Format, Tools, Window, Help) and a toolbar. On the left, a tree view shows a hierarchy: PREAMBLE, MENU, NORMAL (selected), Before start (9), ABNORMAL, EMERGENCY, USER, and Placeholder Title. The main workspace displays a checklist menu structure:

```
PREAMBLE
THESE CHECKLISTS ARE NOT APPE
PLANE MUST BE OPERATED ACCORD
PILOT HANDBOOK AND FLIGHT MA
>ACKNOWLEDGE

CHECKLIST INDEX

>NORMAL CHECKLIST MENU
>ABNORMAL CHECKLIST MENU
>EMERGENCY CHECKLIST MENU
>USER CHECKLIST MENU
>RESET CHECKLIST COMPLETE HISTORY

NORMAL CHECKLIST MENU
>BEFORE START

BEFORE START
>✓PARKING BRAKE/CHOCKS
>✓PREFLIGHT
>✓CIRCUIT BREAKERS
>✓ESS/RH BUS TIE
>✓GEN#1, APU, BATT, GEN #2
```

An 'Insert Title' dialog box is open, with the following fields:

- Checklist: NORMAL
- Insert After: Menu
- Title Name: Before Start

Buttons: OK, Cancel

To insert a title, select the multi clipboard icon and insert after the desired menu item and insert your desired title "Before Start" in this example.

CHECKLIST EDITOR ISSUES AND WORKAROUNDS

- **Known Limitations:**
- The MDC-3110 Checklist functionality only supports a limited number of checklist pages, titles, and items. These limits are:
 - 256KB Maximum size of all checklist files combined
 - 100 Maximum Number of checklists titles per checklist type (Normal, Abnormal, Emergency, or User)
 - 25 Maximum number of pages allowed in a single checklist path. From the Checklist Menu page through the last page of a checklist title (including decision points), only 25 pages are allowed. This does NOT mean that there can only be 25 pages in a checklist type (Normal, Abnormal, etc)
- Preamble and Checklist Index pages are limited to one page in size. If they span more than one page in the Checklist Editor, a build error will occur

CHECKLIST EDITOR ISSUES AND WORKAROUNDS

- The MDC-3110 Checklist functionality does not work properly if there is not a Preamble page created. V3.00 was changed to force the Preamble page to be created for any V3.00 checklist document. However, V2.XX does not enforce this. To prevent possible MDC problems, make sure that your checklist document has a Preamble page.
- If it does not, go to Insert->Preamble from on the menu of the Checklist Editor to add a Preamble page to your checklist document.

CHECKLIST EDITOR ISSUES AND WORKAROUNDS

- **Prevent unlinked pages from being built into checklist files**
- Description:
- The Checklist Editor will allow you to create pages that no other page links to. This is fine, but when the output files are built, these files are included and can cause navigation problems, especially with the menu pages. The Editor should prevent pages that aren't linked to from becoming part of the output file.
- Workaround:
- To prevent the problems associated with unlinked pages from occurring, carefully check the Node View to be sure that no pages exist that aren't linked to from a Menu page before building checklist files or running the Simulator. If such pages exist, you must delete the unlinked pages to avoid the problem.

CHECKLIST EDITOR ISSUES AND WORKAROUNDS

- **No indication of the type of error when trying to build Checklist Editor files to invalid directory location**
- Description:
- If the Checklist Editor tries to build the files to a write-protected or an invalid folder, especially a network folder, an error dialog appears saying there is an error on the last page of the last title of the last checklist. No indication is given that the real problem is the Build directory path.
- Workaround:
- There is no workaround. The Checklist Editor cannot build to write-protected or invalid network folders. This issue is listed to alert the user that this condition exists.

CHECKLIST EDITOR ISSUES AND WORKAROUNDS

- **Page names for menu pages don't match page titles**
- Description:
- When creating a new checklist document, the menu pages are auto-generated. However, the names of the pages shown in the Node View and the Page Properties tab do not match the text shown on the title item of that page. For example, NORMAL page in the Node View has a title of NORMAL CHECKLIST MENU. These should match up.
- Workaround:
- No workaround is necessary. However, changing the name in the Page Properties dialog causes the Node View and the Page Title to sync up.

CHECKLIST EDITOR ISSUES AND WORKAROUNDS

- **Simulator and MDC Issues**
- (These are only present in specific MDCs and Checklist Editor Simulators.)
- **Checklist Simulator does not display message for no more chapters (MDC-4100, BuildMDC4100.DLL)**
- Description:
- When the user performs a Chapter Down in the last chapter of a checklist, the Checklist Simulator returns to the Checklist Menu correctly. However, it does not display the message "NO MORE CHAPTERS IN THIS CHECKLIST" on the status line as it should.
- Workaround:
- No workaround is available. This issue is listed for user awareness.

TO RUN AS ADMINISTRATOR

- To run as administrator
 - Right click on the CLE and select Properties
 - Under Compatibility, select Run this program as an administrator

