PGS 2018 V5.7.1

RELEASE NOTE No: RLN-PGS_5.7.1_IND-A

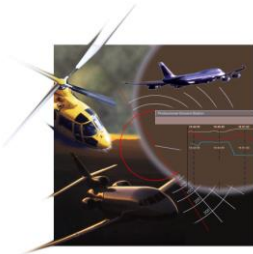---

PGS V5.7.1

New Features

- Flight recorders
  - CURTISS-WRIGHT iMPFR flight recorder has been added with the following capabilities:
    - Download and process of flight parameters, audio, image (1 cockpit camera and 4 MFDs)
    - Download of OMS and Datalink (data are not processed yet)
  - CURTISS-WRIGHT FORTRESS flight recorder:
    - Download and process of 25 hours CVR audio data has been added
  - L3COM FA5001 DVR flight recorder:
    - Process of image from IP camera has been added

Improvements

- Audio player
  - RF64 WAV file format support has been added to handle audio files bigger than 4GB.
    (Useful to support 25 hours CVR)

Fixed Issues

- Analysis
  - When using an extended flight profile, measurements defined with a measurement range set as Flight Event are not working. [Fixed]

- Audio player
  - When playing WAV file with a size higher than 2GB, no sound can be heard. [Fixed]

- GUI
  - When displaying flight data and using ruler feature, ruler results are not properly displayed in status bar. [Fixed]

- Analysis
  - Root flight phase may not be detected. [Fixed]

- Fleet Management
  - Downloading a FA5001 crash recorder of an aircraft is possible as the crash recorder option cannot be selected. [Fixed]
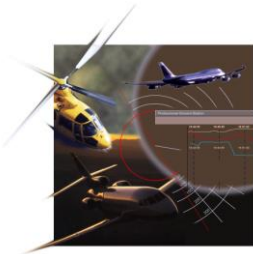

01/10/2019

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- 3D Replay
    - o In 3D view, attitude angles are not displayed when 3D view size is too small. [Fixed]

Known Issues

- Synchronisation
    - o Synchronizing data files with a different timeline may take a lot of processing time and result may not be consistent.
- GUI
    - o When displaying flight data, after several zoom-in, curves may disappear or may be displayed twice.
    - o For checkboxes inside a grid, when changing checkbox state using keyboard's spacebar, the new state is not applied and has no effect.
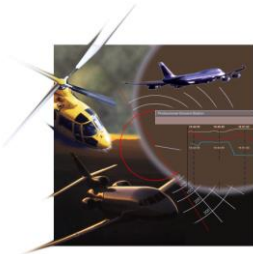
Deprecations and Removals
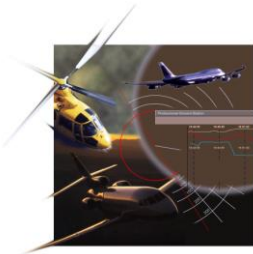
- None

PGS V5.7.0

New Features

- Flight recorders
    - L3COM LDR/1000-1710-11 flight recorder has been added with the following capabilities:
        - Download and process of flight parameters, audio and image (1 camera)
    - CURTISS-WRIGHT FORTRESS flight recorder has been added with the following capabilities:
        - Download and process of flight parameters, accelerometer, rotor speed, audio (2Hours only), image (2 cameras)
        - Download of Datalink (Datalink not processed yet)
    - L3COM FA5001 DVR flight recorder has been added with the following capabilities:
        - Download of flight parameters, audio and image (camera HD-SDI and camera IP)
        - Process of flight parameters, audio and image (camera HD-SDI only, camera IP not processed yet)
    - CURTISS-WRIGHT EFDMU D51703 quick access recorder has been added with the following capabilities:
        - Process of flight parameters
    - Others
        - A "Log" button has been added to all crash recorders result dialog. When clicked it opens the log file of the downloaded recorder if the log feature is enabled (Settings dialog)

- GUI
    - A local copy of a .xff file is created when it is opened from a network path, a mapped network drive, a disc drive or a removable drive to avoid poor performances.
    - To avoid to poor performances, when resizing flight data view (main PGS view) if refresh time is higher than 500ms, then real time refresh is disabled until resizing is completed.
    - An option to hide values out of scales range has been added to scale contextual menu of flight data view.
    - A menu entry "Export" has been added to Statistics menu.

- Image player
    - An Image player has been added to replay one image source either alone or synchronised with other data sources (flight parameters, audio, …)

- Database / Parameter studio / Database import
    - ARINC 664 flight data parameters support has been added
    - [for CURTISS-WRIGHT and IRKUT use only] Flight parameters definition import from a .xidml file to an .arb has been added for ARINC 717 and ARINC 664. This capability is activated from options.ini file.
    - [for CURTISS-WRIGHT and LEONARDO use only] Flight parameters definition import from a .csv file to an .arb has been added for ARINC 664. This capability is activated from options.ini file.
    - [for DRS use only] Flight parameters definition import from a .csv file to an .arb has been added for ARINC 717. This capability is activated from options.ini file.

- Statistics

- o An Export dialog to export statistical data to a .csv file has been added.

- 3D replay
    - o A background feature has been added to both instruments and panels.
    - o SVG image basic support has been added to both instruments and panels.

- Settings
    - o A "Reset shaders" button to delete shaders files has been added to the Replay section.
    - o A Files Extension section has been added where it is possible to associate the following file extensions to PGS: .arb, .xff, .dlu, .raw, .pcm

- Others
    - o An API feature has been added to control PGS from a command line, a batch file or another application.
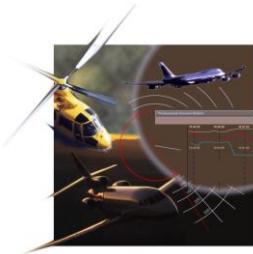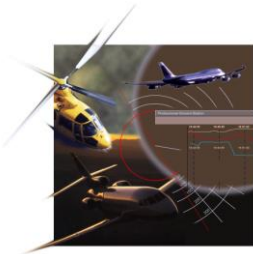
Improvements

- Audio player & Audio synchronisation
  - Time ticks are now placed so that "0" corresponds to a tick.
  - The number of time ticks is now automatically adapted to the zoom level.
  - A fifth audio track has been added.
  - When an audio stream is already manually synchronized in the player, additional audio streams that are added to the player are automatically aligned on its right.
    As a result, the "Synchronize" popup menu entry has been removed.
  - When audio streams are loaded in the player, each one is now automatically synchronised using its own synchronisation markers.

- Fleet Management
  - In Flights dialog, when selecting flight files, the total number of events (sum all events of all selected flight files) is now displayed in the status bar after the total duration.
  - In Flights dialog, when starting an analysis, the operator is warned if some of selected flight files have the same flight number and analysis is stopped.
  - In Flights dialog, when starting an analysis, the operator is warned if some of selected flight files have different flight numbers but the same start date.
  - In Flights dialog, when refreshing the local cache file (Refresh button), the operator is warned if some .xff flight files have a "TOO HIGH" version.

- Database / Parameter studio / Database import
  - ARINC 717 8192 words per second support has been added.
  - In Formulae for computed parameters dialog (Parameter studio -> Computed -> Formula button), grid columns are now resizable.
  - For FDCR parameters with Acquisition & Source Identification format set to ARINC429 a "sign" property has been added (unsigned for BIN and signed for BNR).
  - For FDCR parameters with Engineering Format type set to BCD a "Number of decimal digits" property and an "Offset" property have been added.
  - [for AH use only] Gilda parameters import is now supporting the following new import rules:
    - The attributes order in the XML files of GILDA is no more mandatory, the position of each attribute of a node is free.
    - SDI is not used when the SDI part of RefFrameLabelSDI is equal to SdiCode (old notation in Gilda) or SdiData (current notation in Gilda).
    - For ARINC429 parameters with BIN type, the Range definition is now read in a node and no more as an attribute.
    - If import action updates an existing .arb database files, computed parameters defined in the existing database shall when possible be recreated in the updated one.

- Database Manager
  - A feature to select which database kind of elements (Groups, Measurements, AFC Program, Events, Counters) to save in addition to flight parameters and database properties has been added to the Save As dialog.

- Events editor
  - When using discrete parameters in conditions for events, Min and Max columns shall display the numerical value of the state (in brackets) near the text of the state (ex: Ground (1) or Flight (0))

- AFC
  - In AFC reports, curves now take the whole height of the page

- 3D replay instruments
  - All instrument models
    - A background picture can now be assigned to an instrument.

- 3D replay instrument editor
  - Additional buttons have been added to the toolbar (Bring * / Send * / Add layer features).
  - Selected instrument models X/Y, W/H values are now displayed in the status bar.
  - In instrument view, markers of rulers have been added so that they are now specific to each layer of the instrument.
  - Context menus have been reworked an enhanced.

- 3D replay panel
  - A background picture can now be assigned to a panel.
  - A size property is now set to a panel.

- 3D replay panel editor
  - A grid has been added to the panel tab view.
  - Top and left rulers have been added to the panel tab view. Rulers include markers that are specific to each layer of each panel tab.
  - A zoom feature (for panel tab view) has been added.
  - A toolbar has been added with buttons to (New, Open, Save, X/Y, W/H, Align, Bring * / Send * / Add layer features).
  - A status bar has been added to display selected instruments X/Y and W/H values.
  - A multi layers feature has been added for each panel tab.
  - The treeview has been modified to display layers and layers content of the selected panel tab.
  - A properties dialog has been added for selected layer or selected instrument or panel.
  - Context menus have been reworked an enhanced.

- Others
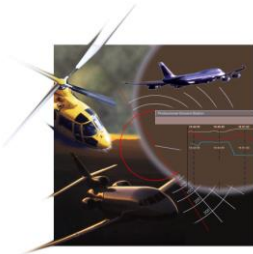 - All references to Penny and Giles (as a recorder manufacturer) have been changed to CURTISS-WRIGHT.
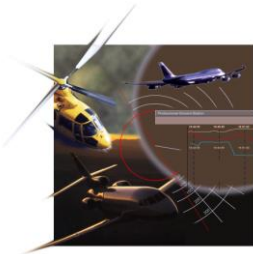
Fixed Issues

- GUI
  - When hovering over the "Exit" entry in the "Aircraft" menu of the main windows, "Exit tracer" is indicated. [Fixed]
  - When leaving the Tracer by the menu of the Tracer window, PGS closes. [Fixed]
  - When the AFC editor is opened in read only, the last line is not sorted. [Fixed]
  - When replaying audio data in conjunction with flight data, zoom behaviour may not be correct. [Fixed]
  - When zooming-in in the audio, the arrows of the horizontal scrollbar do not work anymore at a given zoom level. [Fixed]
  - When scrolling horizontally in the Audio Player, an infinite loop may occur. [Fixed]
  - When displaying flight data, switching the slider mode may make markers labels disappear. [Fixed]
  - In Report dialog (Fleet Management -> Flights dialog -> Report button), hidden columns in the grid are not managed properly

- Database / Parameter studio
  - When a filter is used, and a column is sorted, selected parameters are not the ones expected. [Fixed]
  - When previously set in Parameter Studio dialog, the sort by "Short Name" of parameters is not working properly. [Fixed]

- Database import
  - [for AIRBUS HELICOPTER only] Importing AH Gilda parameters from gilda files may make PGS crash if the database already exists. [Fixed]

- AFC
  - If a step value is equal to 0 in an "Increment" or "Angle Increment" AFC test condition, an infinite loop occurs. [Fixed]
  - In the cells of an AFC report PDF file, the text is not displayed if it is too long compared to the cell size. [Fixed]

- Project
  - When loading a project with flight data, audio data and zooms, an infinite loop may occur. [Fixed]
  - When loading a project, the size of the Audio Player window is not restored. [Fixed]
  - When loading a project, manual synchronization markers within the project file may conflict with synchronisation information ".si" files. [Fixed]

- Synchronisation
  - Manual synchronization marker for flight data can be set outside the flight data range. [Fixed]

- Flight data processing
  - When displaying flight data, float ARINC573 parameters value may be seen as abnormal spikes. [Fixed]

- Fleet Management
  - When deleting a selected aircraft from Fleet Management dialog then closing Fleet Management dialog, PGS crashes. [Fixed]

- 3D replay instrument editor
  - Bring* and Send* do not work as expected. [Fixed]
  - Active layers related actions do not work as expected. [Fixed]
  - when using multiple monitors, drag and drop of a model from one monitor to another make the application crash. [Fixed]

- 3D Replay instrument models
  - 3D view instrument model
    - Terrain around airports is not flat as it should be. [Fixed]
    - A graphic glitch (a black rectangle that blends with the current satellite imagery tile) occurs when another satellite imagery is displayed. [Fixed]
  - Dial instrument model
    - Background center area is not transparent as it should be. [Fixed]
  - Counter instrument model
    - Left text alignment does not work properly. [Fixed]
  - Control instrument model
    - Buttons text is not clipped. [Fixed]

- 3D Replay
  - When several 3D Replay panel sheets are detached PGS displays error message #38 "Cannot initialize the Replay panel". [Fixed]
  - Flight data parameters values may not be properly used which can be interpreted as a bad aircraft attitude during flight and/or a missing part of the trajectory. [Fixed]

- Protected version
  - Protected version of PGS crashes as soon as 3D Replay view opens. [Fixed]
  - Protected version of PGS does not run at all since Windows 10 build 1803. [Fixed]

- Others
  - When updating PGS, shaders may not be compiled correctly. [Fixed]

Known Issues

- Audio player
  - When playing wav file with a size higher than 2GB, no sound can be heard.
- GUI
  - When displaying flight data, after several zoom-in, curves may disappear or may be displayed twice.
  - For checkboxes inside a grid, when changing checkbox state using keyboard's spacebar, the new state is not applied and has no effect.

Deprecations and Removals

- OS support
  - Windows XP support has been removed.