Introduction

TeamSTARS "tsWxGTUI_PyVx" Toolkit
with **Python** 2x & **Python** 3x based
Command Line Interface (CLI)
and **"Curses"**-based **"wxPython"**-style
Graphical-Text User Interface (GUI)

Get that cross-platform, pixel-mode "wxPython" feeling on platforms with:

- 64-bit processors, nCurses 6.x, 64-bit Python 3.6.x or later GUI applications and character-mode 256-/16-/8- color (xterm-family) and non-color (vt100-family) terminals and terminal emulators.
- 32-bit processors, nCurses 6.x/5.x, 32-bit Python 3.5.2 or earlier GUI applications and character-mode 16-/8-color (xterm-family) and non-color (vt100-family) terminals and terminal emulators.

Table of Contents *(with slide show* Hyperlinks*)*

Collection of Slide Show Presentations

- **Introduction**
  - *Team*STARS "tsWxGTUI_PyVx" Toolkit
  - Python (2x & 3x) virtual machines
  - wxPython high level, pixel-mode, graphical widgets
  - Curses terminal control library and low level graphical widgets
- **Project** (*popup separate slide show*)
  - Objectives
    - Goals (Capabilities)
    - Non-Goals (Limitations)
  - Plans
    - Technologies
    - Design Decisions
    - Release & Publication

- **Release** (*popup separate slide show*)
  - Technologies
  - Design Decisions
  - Release & Publication
- **Use Cases** (*popup separate slide show*)
  - Sample Screen Shots
  - Block Diagrams
  - Sample Platform Configurations
  - Command Line Interface (CLI)
  - Graphical User Interface (GUI)
  - Embedded_System_Interface
  - Source_Distributions
  - ManPages

TeamSTARS "tsWxGTUI_PyVx" Toolkit
prepared & presented by Richard S. Gordon

*Team*STARS "tsWxGTUI_PyVx" Toolkit

- It is a productive, software development toolkit for rapidly prototyping platform-independent application programs for embedded systems.

- It takes advantage of the cross-platform capabilities of:

  - "**Python** WEB browser link" (2x & 3x, which are implemented in C/C++) programming languages. interpreters and virtual machines

  - "**wxPython** WEB browser link" (Python wrapper for "**wxWidgets** WEB browser link", which itself is implemented in C/C++) high level, pixel-mode, graphical widget application programming interface

  - "**Curses** WEB browser link" (traditional for Unix or new "**nCurses** WEB browser link" for Linux, which are implemented in C/C++) terminal control library and low level, text-mode, graphical-style widget application programming interface

Python Programming Language

Excerpts From Wikipedia, the free encyclopedia:

- "Python is a widely used general-purpose, high-level programming language."

- "Its design philosophy emphasizes code readability, and its syntax allows programmers to express concepts in fewer lines of code than would be possible in languages such as C++ or Java."

- "The language provides constructs intended to enable clear programs on both a small and large scale."

wxPython Graphical User Interface API

Excerpts From Wikipedia, the free encyclopedia:

- "wxPython is a wrapper for the cross-platform GUI API (often referred to as a 'toolkit') wxWidgets (which is written in C++) for the Python programming language."

  - "In computer programming, an application programming interface (API) is a set of routines, protocols, and tools for building software applications. An API expresses a software component in terms of its operations, inputs, outputs, and underlying types. An API defines functionalities that are independent of their respective implementations, which allows definitions and implementations to vary without compromising the interface. A good API makes it easier to develop a program by providing all the building blocks. A programmer then puts the blocks together."

- "It is implemented as a Python extension module (native code)."

- "Like wxWidgets, wxPython is free software."

Curses Terminal Control Library 1 of 2

Excerpts From Wikipedia, the free encyclopedia:

- "Curses-based software is software whose user interface is implemented through the Curses library, or a compatible library (such as New Curses)."

- "Curses is designed to facilitate GUI-like functionality on a text-only device, such as a PC running in console mode, a hardware ANSI terminal, a Telnet or SSH client, or similar."

Curses Terminal Control Library 2 of 2

- "Curses-based programs often have a user interface that resembles a traditional graphical user interface, including 'widgets' such as text boxes and scrollable lists, rather than the command line interface (CLI) most commonly found on text-only devices. This can make them more user-friendly than a CLI-based program, while still being able to run on text-only devices."