Pile Dynamics, Inc.

Quality Assurance for Deep Foundations

# Comparison of GRLWEAP14 Features Professional vs. Offshore (Highlight is for Offshore only)

| Main Features | Professional | Offshore |
|---|---|---|
| **Hammer database:** | | |
| Number of Hammer Available | >1050 | >1050 |
| Allows to create own hammer database files and keep the files at any location | V | V |
| Import from multiple files | V | V |
| Manufacturer's suggested driving system | V | V |
| | | |
| **Geotechnical Static Analysis Tools:** | | |
| **ST** – Simple Soil Type based method | V | V |
| **SA** - SPT N-value and soil type based method extended to allow for input of friction angle and/or unconfined compressive strength | V | V |
| **CPT** – CPT based method by Schmertmann, 1978 | V | V |
| **FHWA/Driven** method was based on the recommendation of FHWA to use both Tomlinson and Nordlund static analysis methods | V | V |
| **API** – method based on the API code (1993) | | V |
| **API2** – method based on API (2007) | | V |
| **A&H** - method based on the theory proposed by Alm & Hamre (2001) using CPT data | | V |
| Input single large soil layer without loss of accuracy | V | V |
| Option for improved treatment of end bearing at soil layer interfaces considering soil strength values above and below the pile toe location. | V | V |
| | | |
| **Pile/Soil Model Creation/Input** | | |
| Standard Pile Build features to help built non uniform pile and allow export and import user generated pile profiles | V | V |
| Advanced Pile Builder features (multiple add-ons) | | V |
| Area Calculator | V | V |
| Non uniform piles | V | V |

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| | | |
|---|---|---|
| Pile inclination | V | V |
| Soil column weight | | V |
| Two pile | V | V |
| No restriction on the number of computational pile model segments | V | V |
| Allow unlimited lines of soil data input | V | V |
| | | |
| **Other Input** | | |
| A comprehensive input wizard to include all necessary input parameters for all types of analysis and checks | V | V |
| Multiple hammer analysis for Bearing Graph and IC | V | V |
| Multiple impact hammers for driveability analysis | | V |
| No restriction of analysis depth values for expanded driveability analysis capabilities. | V | V |
| Import hammer data to the list in the program from different files and locations. | V | V |
| Hammer override | V | V |
| Quick Review feature to display analysis result summary during input generation | V | V |
| | | |
| **Analysis Option** | | |
| Bearing Graph | V | V |
| Driveability | V | V |
| Inspector's chart | V | V |
| Residual Stress Analysis | V | V |
| Alternate Hammer Location | | V |
| | | |
| **Friction Fatigue Analysis:** | | |
| GRLWEAP friction fatigue | | V |
| Alm and Hamre (A&H) Friction Fatigue Method | | V |
| | | |
| **Output** | | |
| Standard report for analyses of Bearing Graph, Driveability and Inspector's chart | V | V |
| Variable vs. time for analyses of Bearing Graph, Driveability and Inspector's chart | V | V |
| Bending Stresses | | V |
| Tables for pile material Fatigue Analysis | | V |

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| | | |
|---|---|---|
| Customize report styles including graphical and numerical contents | | V |
| Data sharing (copy/paste) with other applications such as Excel for all output features | V | V |
| Shaft resistance distribution graph (SRD) showing both LTSR and SRD unit shaft resistance | V | V |
| Friction fatigue unit shaft resistance distributions a graph (FF) for all analyzed analysis depths | | V |

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