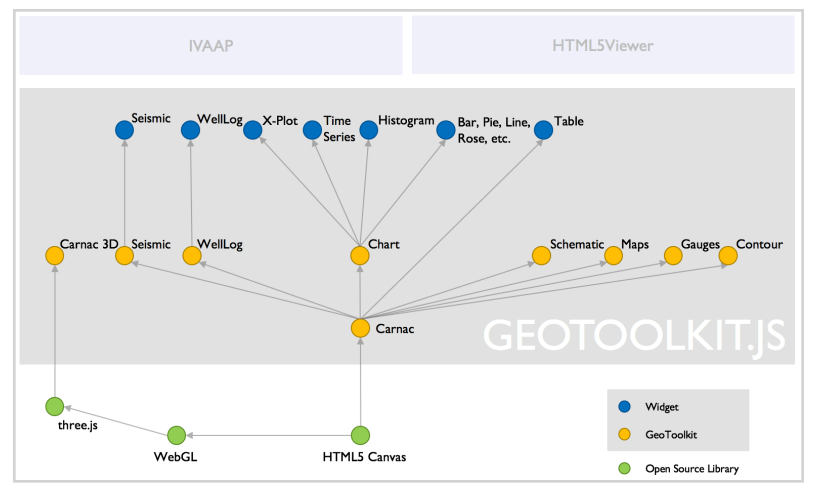


GeoToolkit.JS 2022.0

Features and Architecture Overview



E&P Libraries and Widgets

WellLog		Seismic		3D	
WellLog Visuals Log curve Discrete curve Tick curve Value curve Gradient curve Stacked curve Fill between two curves or base line Gradient fill Stacked fill Marker (tops) Lithology Annotations Array log Tadpole Rose diagram Density log Image log Raster log Core image Cross-section Waveform (requires seismic module) Custom/third-party visuals Cutoff log	Deviated View Deviated view (existing visuals) Attached header / footer WellLog Widget Display single well log data Vertical or horizontal view Template support Interactive tool support Time or depth-based data Real-time support PDF printing Custom header/footer Cursor tracking tool Zones support Headers Curve Fill Lithology histogram Track Collapsed Composite Custom/third-party headers Cursor tracking Tracks Linear Logarithmic Axis Navigation Tangential Split track	Misc Responsive (level of details) Annotation overlay LAS 2 writer Tools Ghost tool (linear and deviated tracks) Tops editor Curve and marker editor Drag and drop tool Schematics Display Features Linear or compressed Vertical or deviated L-shaped Multi-string High-quality SVG symbols Labeling and annotations Real-time Fluid levels Lithology Well log track Options to integrate own schematics elements library (vector/raster img.) Widgets Widget schematic L-Shape schematic widget Multilateral schematics Deviated schematics Tooltip tool Dual schematics widget	Widgets Seismic widget Seismic widget with trace header table Seismic widget with auxiliary graph Trace headers table view Annotations overlay Display Features Wiggles Positive and negative fill Variable density with custom color map Trace headers Variable trace spacing Waveform pattern Decimation and clipping Vertical or horizontal view Trace headers table Time slices in base maps Auxiliary graph Base map Overlay support Variable trace spacing Horizon picking tool Data Processing Interpolation (linear, quadratic, step) Normalization (maximum, avg., RMS, specific limits) Taper filter Automatic gain control	Data Formats SEG-Y Memory data source Remote data source INTGeoServer integration with trace decimation and data compression Custom source IVAAP integration with decimation and data compression Azure SEG-Y reader IVAAP integration with decimation and data wavelets based and ZFP compression Real-Time Support Real-time traces Waveform DTS acquisition Shot monitoring Contour Display Features 2D/3D Isolines with labels Smoothing Label collision detection Colormap-based fill Faults Overlays Types Regular rectangular grid Arbitrary triangular grid Gridding algorithms: Kriging and ThinPlate	Display Features Grid Compass Three.js library integration Different cameras Well trajectory Log curve: cylinder or 2D Log fill Array log Well annotations Vector object Surfaces Height maps Seismic slices Seismic overlays Pointset (microseismic) 2D map Animations Picking Reservoir grid Schematics VTK formats Seismic volume support ScatterPlot GigaGrid 3D shape highlighting Contour 3D Multi-lateral trajectory tube Faults visualization Surface Projection widget Grid Surface loader and data type Seismic fence intersection support

Generic Libraries and Widgets (CARNAC Modules)

Base 2D Graphics		Charts		Maps		Gauges/Alarms	
Scene Graph: Graphical Primitives Line/polyline Polygon Rectangle Ellipse Arc Arrow Generic path (bezier) Spline Symbol Text Image Tiled image Groups Pyramid image support Interactive Tools Cross hair Rubber band Point and area selection Shape Editor Elastic zoom and scroll DOM tools Annotations tool and layer Measure Distance Export Options Image PDF CGM	Axes and Grids Regular interval Adaptive (depending on current on zoom factor) Logarithmic Time-based Automatic step and limits Finite / Infinite axes Node Layout CSS Vertical/horizontal Grid Annotated Margins and padding Table Widgets Large dataset Sort Cell editing Custom cells Data Source Data Series: represent a single series of values Data Table: a group of data series organized as table Data View: read-only sub view of data series/table Data Set: a set of data tables	Misc Color bar Legends Color providers Scrollbars Support of CSS styles Support of CSS 2D transform Support CSS text-transform Persistence JSON schema Units Transition animation Responsive style (supports level of details) HTML text formatting Internationalization/localization Abstract layer for http communication Generic Supported platform: Mobile, Desktop (Chrome, etc.), Node JS Supported frameworks: Angular, React, VUE Supported languages: TypeScript, JavaScript (ES5, ECMAScript 2015 (ES6) and beyond)	Types Area Bar Box plot Bubble Donut Histogram Table Pyramid Line Pie Radar Rose Cross plot (Geoscience) Stacked area Tornado XY Line chart Heat map Multiseries Peity (small charts) Treemap Flow charts Multi-histogram Linear / non-linear regression Regression line Cross-section Real-time support for all charts and widgets Ternary Chart DensityContourShape	Display Features Support for different layers WMTS services: Google, MapQuest, ESRI, OpenStreet map, Bing ArcGIS GeoServices (feature, map service) ArcGIS web map ArcGIS query/identify/legend API support for ArcGIS servers GeoJSON support KML support GeoRSS Stream service CSS Limited Error Raster Compression format Coordinate systems Vector tiles Overlays Symbols aggregation Symbol aggregation as bubble chart Smart labeling Tool to measure distances and area GPX format support Opt. UI floating control Infinite horizontal scroll Contour layer (requires Contour module) Heatmap layer GeoTIFF support	Display Features Circular Half-circular Linear Numeric Digital Traffic Multi-value Custom gauges Time Series Display Features Customizable time axis Annotations Overlays Fill/fill between Interpolation modes Linear/logarithmic Micro Positions Zoom behavior Stacked / percentage mode Reports Display Features Document Preview PDF		