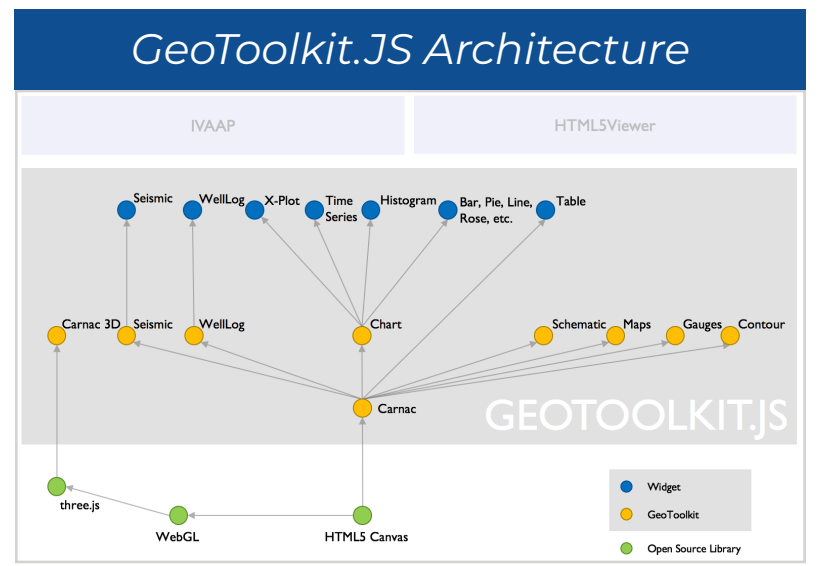


GeoToolkit.JS 2023 (4.0)

Features and Architecture Overview

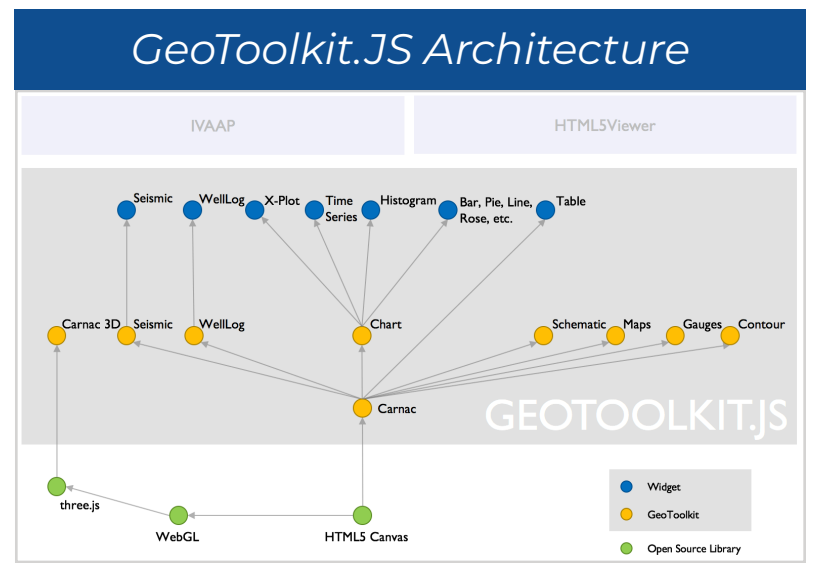


E&P Libraries and Widgets

WellLog		Seismic		3D	
WellLog Visuals	Deviated View	Misc	Widgets	Data Formats	Display Features
Log curve	Deviated view (existing visuals)	Responsive (level of details)	Seismic widget	SEG-Y	Grid
Discrete curve	Attached header / footer	Annotation overlay	Seismic widget with trace header table	Memory data source	Compass
Tick curve	Fills to accumulation cycle visual	LAS 2 writer	Seismic widget with auxiliary graph	Remote data source	Three.js library integration v152
Value curve	WellLog Widget	Tools	Trace headers table view	INTGeoServer integration with trace decimation and data compression	Different cameras
Gradient curve	Display single well log data	Ghost tool (linear and deviated tracks)	Annotations overlay	Custom source	Well trajectory
Stacked curve	Vertical or horizontal view	Tops editor	Display Features	IVAAP integration with decimation and data compression	Log curve: cylinder or 2D
Fill between two curves or base line	Template support	Curve and marker editor	Wiggles anti-aliasing	IVAAP integration with decimation and data compression	Log fill
Gradient fill	Interactive tool support	Drag and drop tool	Positive and negative fill	Azure SEG-Y reader	Array log
Stacked fill	Time or depth-based data	Lithology editor	Variable density with custom color map	IVAAP integration with decimation and data wavelets based and ZFP compression	Well annotations
Marker (tops)	Real-time support	Interactive annotation editing	Trace headers	IVAAP Backend and INTGeoServer 3.0+ Backend	Vector object
Lithology	PDF printing	Symbols mode to Log-MudLog Section	Variable trace spacing	Real-Time Support	Surfaces
Annotations	Custom header/footer	Paint annotations	Waveform pattern	Real-time traces	Height maps
Array log	Cursor tracking tool	Schematics	Decimation and clipping	Waveform	Seismic slices
Tadpole	Zones support	Display Features	Vertical or horizontal view	DTS acquisition	Seismic overlays
Rose diagram	Headers	Linear or compressed	Trace headers table	Shot monitoring	Pointset (microseismic)
Density log	Curve	Vertical or deviated	Time slices in base maps	ZFP decompression for IVAAP backend	2D map
Image log	Fill	L-shaped	Auxiliary graph	Contour	Animations
Core image	Lithology histogram	Multi-string	Base map	Display Features	Picking
Cross-section	Track	High-quality SVG symbols	Overlay support	2D/3D	Reservoir grid
Waveform (requires seismic module)	Collapsed	Labeling and annotations	Variable trace spacing	Isolines with labels	Schematics
Custom/third-party visuals	Composite	Real-time	Horizon picking tool	Smoothing	VTK formats
Cutoff log	Custom/third-party headers	Fluid levels	Data Processing	Label collision detection	Seismic volume support
Correlation Widget	Cursor tracking	Lithology	Interpolation (linear, quadratic, step)	Colormap-based fill	ScatterPlot
Display multiple wells	Tracks	Well log track	Normalization (maximum, avg., RMS, specific limits)	Faults	GigaGrid
Supports header/footer	Linear	Options to integrate own schematics elements library (vector/raster img.)	Taper filter	Overlays	3D shape highlighting
Option to share the same template between wells	Logarithmic	Widgets	Automatic gain control	Types	Contour 3D
Horizontal mode	Axis	Widget schematic		Regular rectangular grid	Multi-lateral trajectory tube
Lazy loading for proxy well	Navigation	L-Shape schematic widget		Arbitrary triangular grid	Faults visualization Surface
Data Formats	Tangential	Multilateral schematics		Gridding algorithms: Kriging and ThinPlate	Projection widget
LAS	Split track	Deviated schematics			Grid Surface loader and data type
Data Object Model		Tooltip tool			Seismic fence intersection support
		Dual schematics widget			

GeoToolkit.JS 2022.0

Features and Architecture Overview



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 Event map	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 Flexbox 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 Global Z-order Generic <i>Supported platform: Mobile, Desktop (Chrome, etc.), Node JS</i> <i>Supported frameworks: Vue, React Native for iOS and Android, Angular</i> <i>Supported languages: TypeScript, JavaScript (ECMAScript 2015 (ES6) and beyond)</i>	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 Ternary Plot Chart widget	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		