brightforms™

Mobile Device Engine

BrightForms Data Sheet

BrightForms™, our mobile device engine, powers the mobile enterprise applications developed in the BrightBuilder™ Mobile Application Designer. Available for Android, iOS, Windows Phone, Windows Mobile 5/6, Windows CE 5/6, Windows desktop, BrightForms™ engines are designed to render the mobile application components as they are required by the user, thus optimising the use of available computing resources and allowing for efficient operation of complex mobile ap-plications on low powered devices.

In addition to rendering the mobile application forms (user interface), database definitions, data exchange (synchronisation) rules and report definitions, BrightForms™ further extends the level of application richness, by providing integration to local device databases, such as SQLite and SQL Server Compact Edition and to third party peripheral products, such as barcode scanners, printers, cameras and GPS devices.

Understanding that business mobility solutions are deployed for many differing purposes, BrightForms™ has also been designed to provide flexible modes of operation, supporting either occasionally connected (off-line) applications or always-on (thin client) mobile applications.

This means that mobile devices can store data locally if required and connect on-demand to synchronise data, or draw data directly from server-side data sources, as required, depending on the availability of wireless communications networks.

To complete the mobility loop, a secure synchronisation engine and application distribution framework is incorporated into the BrightForms™ engine. This provides seamless, accurate communication of data with back office systems using BrightServer™ and also supports wireless delivery of application and engine updates. Data traffic is also optimised within this framework to reduce data size when communicating over wireless TCP/IP based networks (e.g. GSM, GPRS, CDMA, 3G, 4G, Wireless LAN and cradle).

BrightForms Highlights

- Processes mobile application components, database, and business logic developed in BrightBuilder™
- Communicates with BrightServer™ using industry standard SOAP over HTTP or secure HTTPS
- Utilises TCP/IP based networks (GSM, GPRS, CDMA, 3G, 4G & WLAN and IP Satellite) for data communication
- Optimises data transmissions and supports data encryption and security using SSL
- Built-in tracing module for identifying bugs and issues for application designers
- Supports online queries for accessing large and/or dynamic data bases on server-side databases
- Operates in occasionally connected mode, for field-based solutions or database-less thin client mode for back-office applications and/or internal mobile solutions over Wi-Fi or Bluetooth (e.g. warehousing etc)
- Built-in Wireless Distribution Framework supports wireless distribution of BrightForms™ engines, applications, data and any file (e.g. Word documents, PDF's, JPEG images etc)
- Integrates with cameras, barcode scanners, mobile printers, GPS devices and magnetic swipe cards.
- Supports signature capture, photo capture, and image redlining
- BrightForms™ engines available for Android, iOS, Windows Phone, Windows Mobile, Windows CE and Windows desktop operating systems

BrightForms Specifications

Modes of Operation

Offline Mode	Utilises an SQL relational database on the mobile device to store and manage data locally and synchronise with BrightServer™ when connections are available
Semi-online Mode	Supports SQL queries to fetch data from single or multiple tables & Stored Procedure calls to execute stored procedure functions on the server (e.g. customer history, inventory availabilities, customer credit checks, etc.) Also supports Web Services to source data from any web services compliant systems while in the field
Online (always-on) Mode	Ideal for always connected networks such as 3G, 4G or WLAN for applications such as warehousing, hospital administration or any mobile application requirement where centralised data is viewed and updated in real-time

Form Controls

Standard Windows Controls	Uses standard user interface controls to provide a rich user interface including labels, buttons, edit controls, drop down list, combo lists, check boxes, radio button, date-time pickers etc
Bitmap Buttons	Supports use of bitmap buttons to create visually appealing applications
Image Control	Enables BMP and JPEG display with redlining capabilities
List View	Rule based row colouring and image display based on the row data content
Data Grid	Data entry functionality using edit fields, check boxes, date-time pickers on the grid cells
Edit Control	Data entry with a Mask Range checking
Scribble Control	Signature capture for customer/user confirmation
Form Timers	For time based actions and events
System Events	On Cradle, Power On

Sound Support

Play sounds in with visual components	Supports most sound formats including WAV and MP3 files

Unified Camera Functionality

Photo Capture	Utilises unified camera API to trigger photo capture events

Advanced SQL

User defined SQL	Allow authoring complex SQL SELECT queries via an advanced SQL query mode

Multi Language Support

Language Bundles	A single application with multiple languages can be created via language resource definitions

Form Multi Layout Support (Multi Aspect)

Run applications on devices with different form factors	Allows for rapid resizing of applications for differnt form factors. BrightForms can run an application form designed using BrightBuilder on devices with different screen dimensions

Barcode Scanning

Native Support	Motorola and Intermec barcode scanner devices are natively supported for better scanning functionality and power management

Printing

Mobile Printing	Supports print library of over 100 mobile printers for producing delivery dockets or invoices in the field etc
Desktop Printing	Supports backend reporting and other printing requirements using standard printing drivers

GPS Support

Native GPS API	Support GPS devices for navigation and location identification

Magnetic Stripe Card Support

Communicates with serial based card readers	For mobile commerce applications with credit card processing

Email/SMS Support

Full email support for generating emails from the devices
Supports email events from within BrightForms™ applications with attachments

SMS support for smartphones
Integrates with SMS function on smartphones to trigger notifications from within a BrightForms™ application

Synchronisation Engine

Transaction control	Synchronisation protocol to ensure data integrity with full commit and rollback functionality
Background Synchronisation	For less intrusive user applications so that data can be sent and receive to backend systems without any user intervention
Push Module Support	Allows for unsolicited data push from backend systems to devices in the field for timely data delivery

Automatic Engine Distribution

Update core engine files	Synchronisation process supports seamless engine updates to mobile devices including system patches

Tracing

Fully application activity tracing	Provides varying levels of fault tracing capability to remotely identify and resolve application issues

Minimum System Requirements

Platforms Supported	Windows XP/7/8 or higher Windows Phone 8 or higher Windows Mobile 5/6 Windows CE 5/6 Android 2.2 or higher iOS 6.0 or higher	Minimum Hardware Requirements	Windows desktops, notebooks, tablets with 512MB memory & 50MB HDD space OR Windows Mobile devices with 32MB memory & 206MHz ARM processor or higher OR Android and Windows Phone devices with 512MB memory	Device Databases Supported	SQLite SQL Server Compact Edition Microsoft Access

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