The diagram shows a circular cycle with the following labels around it:

- Back-Office Integration
- Scheduling & Dispatch
- Field Data Collection
- Sample Mgmt & Lab Operations
- Quality Control & Report Mgmt

Center: Efficiency, Quality, Speed

Automate and integrate
personnel scheduling & dispatch, field data collection, sample management, lab testing, engineering review, report delivery, and back office operations.

▶ Accelerate client reporting

▶ Continually improve quality

▶ Improve productivity, efficiency and scalability

▶ Reduce paperwork, rework and duplication of effort

▶ Build long-term customer relationships

▶ Enable faster payment and avoid unnecessary costs

MetaField™®

The MetaField® Story

In 2004, Braun Intertec Corporation began providing smart phones to its professional, technical, and field staff for direct mobile phone access to corporate email, calendaring, scheduling, and the Web. The response was so positive that Braun Intertec began looking at ways to improve field information management using the same devices. At the time, field technicians filled out paper forms and returned them to the office, where word processing personnel transcribed the hand-written forms into client reports, in some cases waiting for lab analysis results before sending the paperwork on for engineer and project manager review. The process was prone to mistakes, labor intensive and often required significant rework to help ensure quality.

The Braun Intertec IT staff knew there had to be a better way and wrote a business case for developing a Smartphone-based field information management system that would provide faster, more accurate results, as well as a distinct competitive advantage. Braun Intertec management liked the idea and gave the go ahead to begin development. The results soon became MetaField–a comprehensive platform for "straight-through" field data collection, lab integration, quality control and client report delivery.

With the initial implementation of MetaField, Braun Intertec realized significant improvements in service delivery, quality and cycle time. The firm also saw efficiency increases of 10-15 percent from reductions in rework, transcription labor and transportation costs.

Seven years later, Braun Intertec Corporation created Agile Frameworks, a wholly owned subsidiary created to help other multidisciplinary engineering firms realize the business benefits of MetaField, as well as other products and services. Now, Agile Frameworks makes it possible for your company to achieve the business benefits provided by the first truly integrated field information management system (FIMS) and laboratory information management system (LIMS) built from the ground up for the construction services, environmental and testing industry. Introducing, MetaField.

- ▶ Enable consistently faster cycle time to meet client needs.
- ▶ Deliver high quality results.
- ▶ Build enduring relationships.
- ▶ Enable profitability improvement and acceleration of cash receipts.

Conventional wisdom says it's tough to do all four. But that was before MetaField, the first integrated Field Information Management System (FIMS) and Lab Information Management System (LIMS) designed for the Architecture/Engineering/Construction (AEC) and construction services industries, MetaField:
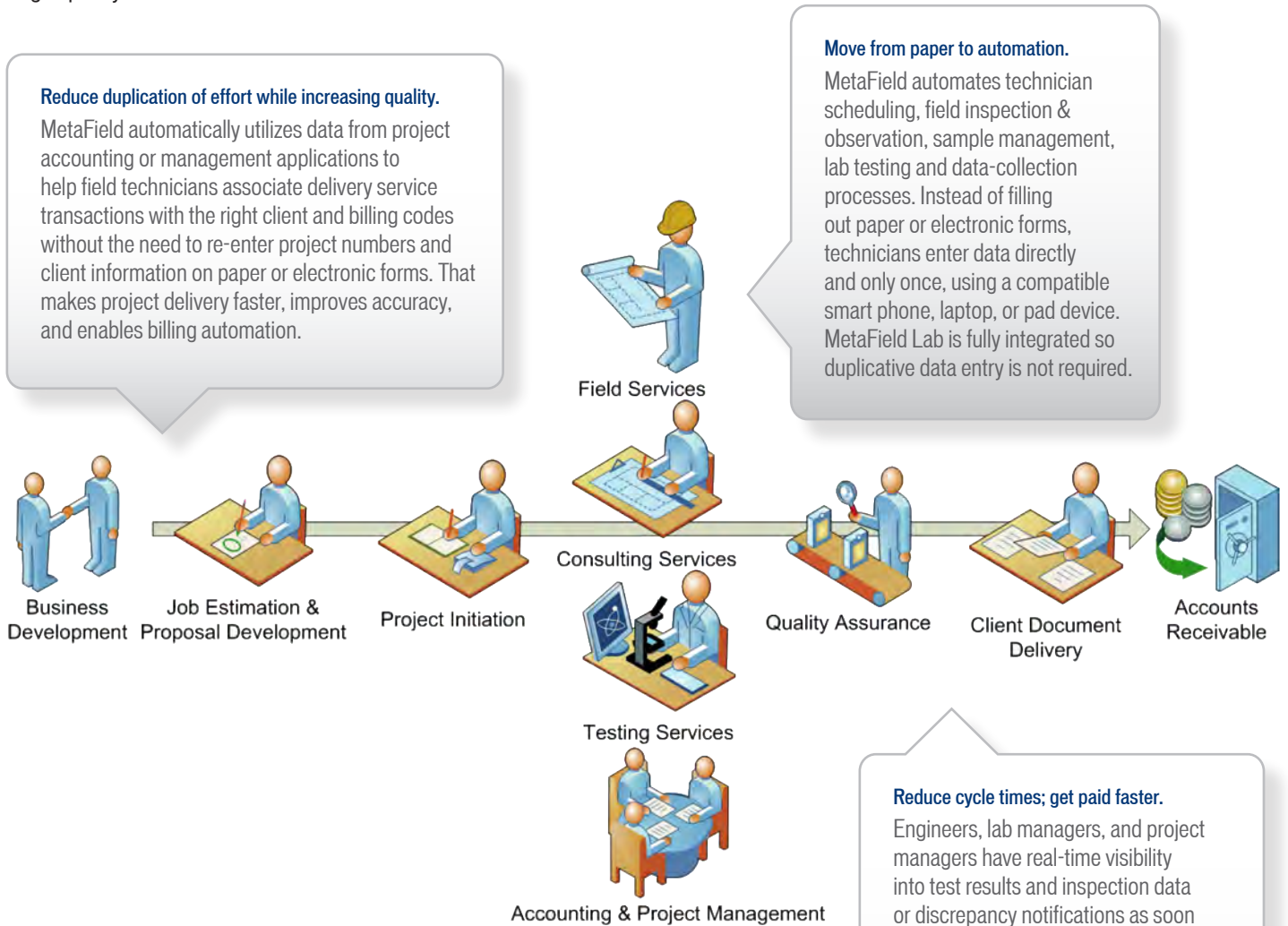
- Enables management of field technician and other field project personnel through centralized scheduling and mobile device-compatible dispatch and work order fulfillment.
- Automates field testing, sampling and recording of inspections and observations. In compatibility with the American Society for Testing Materials (ASTM) and American Association for State Highway Transportation Officials (AASHTO) standards, results are entered by field personnel into most smart phone, pad devices, or PCs and recorded in real time into MetaField.
- Integrates Lab Information Management through sample management, chain-of-custody through testing and test reporting.
- Automates quality control, project management and client reporting. Project data and test results are available in real time for built-in discrepancy management, engineering and project management review. Integrated with PKI-based digital signatures for personal and PE Seal signature stamping, reports are generated and delivered to clients on demand with a few simple clicks. GPS integration with mobile devices enables positioning and mapping analysis.
- Reduces cycle time. MetaField enables you to provide Construction Materials Testing (CMT) services faster and with higher quality than your competitors as well as to scale up for large projects while minimizing headcount growth. And because you work faster and more efficiently, you can get paid faster.

In fact, MetaField automates and integrates core business processes for engineering, testing and environmental consulting firms in a straight-through fashion–from scheduling/dispatch, field data collection, lab testing, review and quality control, digital signing, to client reporting.

MetaField is a great value. As a subscription-based Software-as-a-Service (SaaS), MetaField requires no upfront equipment investment other than typical computer or communications equipment such as a laptop or smartphone and has minimal maintenance cost or administrative overhead compared with traditional systems. Updates and maintenance are part of the service. That can mean an ROI for high-volume engineering, testing and consulting firms in as little as 2-5 months.

MetaField delivers a "straight-through" business process.

MetaField enables you to move your business from manual, document-centric processes to data-centric straight-through processes. For construction services, engineering, testing, and environmental consulting firms the results couldn't be more dramatic. Simply put, you can compress the time between business development and money in the bank. And provide fast, high-quality client services with fewer resources.

Reduce duplication of effort while increasing quality.

MetaField automatically utilizes data from project accounting or management applications to help field technicians associate delivery service transactions with the right client and billing codes without the need to re-enter project numbers and client information on paper or electronic forms. That makes project delivery faster, improves accuracy, and enables billing automation.

Move from paper to automation.

MetaField automates technician scheduling, field inspection & observation, sample management, lab testing and data-collection processes. Instead of filling out paper or electronic forms, technicians enter data directly and only once, using a compatible smart phone, laptop, or pad device. MetaField Lab is fully integrated so duplicative data entry is not required.

Field Services

Business Development   Job Estimation & Proposal Development   Project Initiation   Consulting Services   Testing Services   Accounting & Project Management   Quality Assurance   Client Document Delivery   Accounts Receivable

Reduce cycle times; get paid faster.

Engineers, lab managers, and project managers have real-time visibility into test results and inspection data or discrepancy notifications as soon as they are noted–not if and when technicians finish their paperwork. Clients get reports faster since ASTM and AASHTO standard client reports can be generated directly without re-entering data and published directly to most report delivery systems– paper, email, FTP sites, or customer portals. Faster delivery of high-quality, standardized reports can dramatically reduce invoicing cycles. Bottom line: you can get paid faster and your clients are happier.

What's straight-through processing?

Using Agile Frameworks' advanced software, cross-functional operations that support an entire line-of-business (such as CoMET or NDE) achieve integrated processing capabilities. Instead of maintaining stand-alone systems that require redundant data entry and maintenance, MetaField ties these often cross-departmental operations together Into a seamless, highly efficient process. Optionally, it can integrate directly with project accounting and CRM, for true end-to-end business processing. Using MetaField enables you to:

- Accelerate client reporting;
- Continually improve quality;
- Reduce paperwork, rework and duplication of effort;
- Improve productivity, efficiency and scalability;
- Reduce cycle times;
- Reduce fleet fuel costs;
- Build long-term customer relationships;
- Get paid faster and avoid unnecessary costs.

That's the difference MetaField can make.

Designed for your business

MetaField starts with a simple and intuitive device-independent interface available for PCs (Firefox, Chrome, Internet Explorer), Android, and iOS devices. Schedulers, field technicians, lab technicians, engineers, and project managers can start to use it immediately with the devices they already know and use. That means no upfront investment in specialized equipment and results in a short learning curve. Data is entered into MetaField once and flows through each area and process role in a straight-through fashion.

Project Specifications

Detailed project information flows directly from the project accounting system and is presented to field users in an intuitive mobile-optimized interface. Add additional data to the specification and attach plans and specification documents for download and review in the field.

Scheduling & Dispatch

Schedulers review committed work-loads, scheduling technicians for project work on a centralized, shared calendar. Work orders are issued and dispatched for technician notification and acknowledgement directly to and from their mobile devices. Required certifications can be proactively configured such that schedulers are notified if a particular technician does not have the required certifications for a particular activity.

Field Data Collection

Mobile field technicians click or touch to review work orders and access data collection screens designed to meet ASTM or AASHTO standards for data recording. That means significant reduction in filling out paper forms, retyping data into separate systems and spending days getting project deliverables into the right hands. Project information screens are generated directly from project management or project accounting systems, reducing duplication of effort and the need to re-enter data for communication purposes. Technicians have real-time access to project information and project specifications such as plan diagrams directly in the field on their mobile device—without paperwork. For capable devices, MetaField supports GPS tracking, direct image integration in reports, voice-to-text speaking recognition, even hand-writing recognition.

Lab Operations Management

A sample backlog is tracked beginning with full chain-of-custody transparency starting in the field where samples are collected. An intuitive queueing interface enables lab technicians and lab managers to know exactly when samples and specimens are checked into the lab, what tests will be performed, and when they are scheduled. Redundant data entry is eliminated improving efficiency and quality.

Quality Review & Control

Engineers and project managers click for real-time visibility of field observations and test results. Reports are generated easily by selecting discrete test results or field activities.

Report Delivery & Distribution

MetaField is an all-in-one report repository, report generation and report delivery system. Users click or touch to query the MetaField report database, review report statuses, generate consolidated reports, and email or publish reports to AgilePort®.

Billing & Data Analysis

Almost all data that MetaField captures is available for extract through MetaField's Utilities or Billing Interfaces. Combined with front-end integration to the project accounting system-of-record, this enables finance and other stakeholders who have data mining needs to produce custom configured spreadsheets for use in analysis or batch upload billing activities. Through MetaField's extensive configuration interface, unit-priced transactions and/or labor hours along with their WBS codes can be captured at the time of field data entry or lab test assignment reducing the chance that legitimate revenue generating activities get missed. If the project accounting system supports it, batch upload of billing records eliminates the need for redundant entry of revenue generating transactions.

Field entry interface is optimized for mobile field workers.

MetaField is designed from the ground up to meet the needs of firms that conduct significant operations in the field requiring the remote gathering of test, sample, and special inspection/observation data. Geotechnical and construction materials testing requirements, based on ASTM and AASHTO benchmarks and standards, are closely represented in MetaField functionality. Field technicians will feel completely at home in MetaField.

Discipline Specific

MetaField is based on specific technical discipline requirements. For example, MetaField delivers activity-specific materials testing functionality for a variety of field density testing methods.

Highly Configurable

MetaField controls and specifications are configurable for the way you do business. User defined fields that control custom data entry forms are just one method of configuration.

Project Specific

Provide field instructions and project plans & specifications documents directly to the field technician through their smart phone or other mobile device. Location-based details such as specified strength directly affect the field users' interface. Every transaction is logged against a valid project and the billing codes associated with it. Extract time and unit entries for incorporation into your billing process.

GPS Enabled

MetaField makes use of GPS services to enable location-based identification and mapping of any field activity.

Direct Image Capture

A picture says a thousand words. Using MetaField and their smart phone's camera, technicians can directly associate images with Special Inspection and observation activities. Discrepancy logging is built-in.

Voice-to-text & Hand-writing-recognition

Devices that have the necessary components for voice-to-text dictation and hand-writing-recognition are supported through MetaField's intuitive user interface.
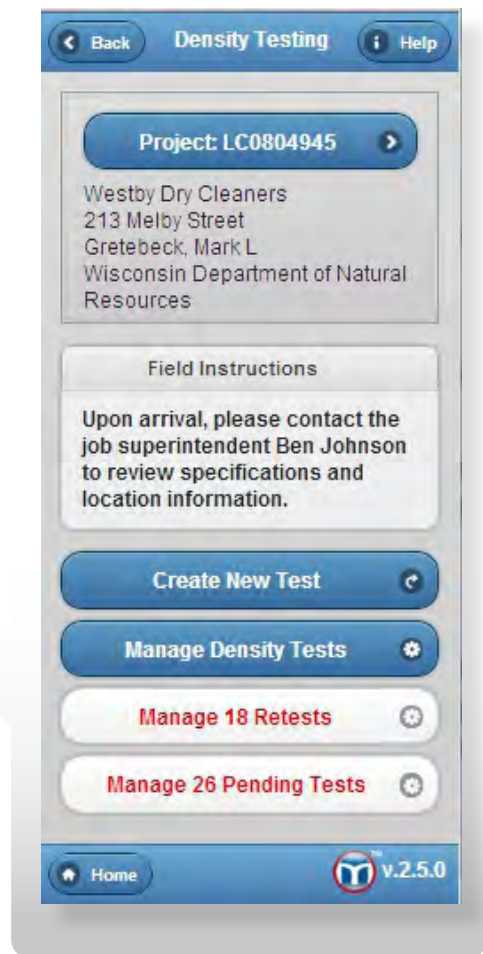
MetaField is periodically updated to meet the latest standards. And since MetaField is a cloud-based Software-as-a-Service (SaaS), your MetaField system is always at the latest version that meets your needs. There is no need to engage your busy IT staff to implement updates or review ASTM or AASHTO standard operating procedures to ensure compliance.
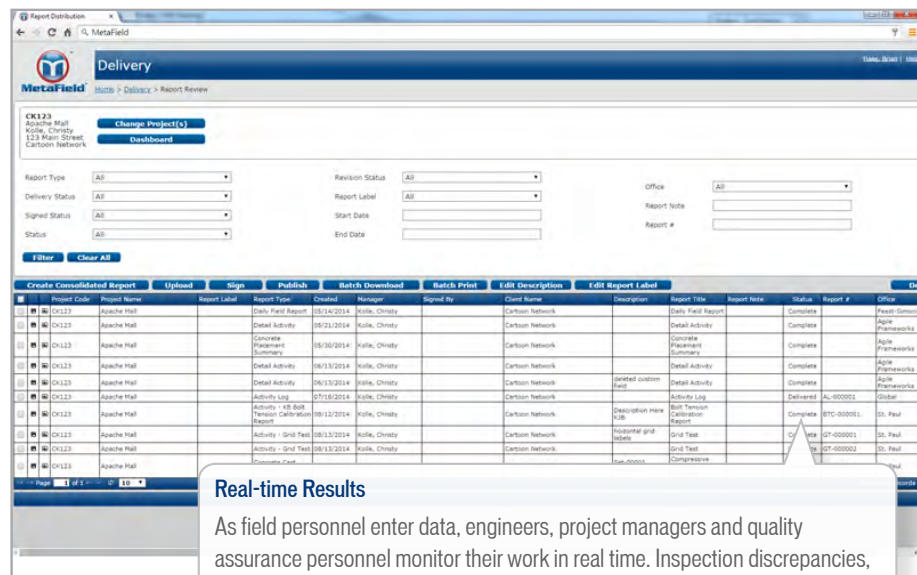
Real-time Results

As field personnel enter data, engineers, project managers and quality assurance personnel monitor their work in real time. Inspection discrepancies, test status, test failures and test results are visible as soon as they are entered. Waiting for paperwork will nol longer cause delays. Personnel can monitor and review real-time quality control data securely, anytime and anywhere access to the Internet is available.

Do-It-Yourself (DIY) forms development leverages the MetaField infrastructure for just about any line-of-business imaginable.

Your business is not only unique but has many opportunities to grow and expand. The software systems you use should not be a constraint but rather an accelerator to leveraging these opportunities. Through its DIY forms development interface, MetaField can be this accelerator, enabling you to extend the types of work you can automate and optimize through the MetaField user interface, process model, and database engine. In as little as a few minutes, you can build, test, and deploy new data entry forms and reports. As your business expands in breadth and depth, your business experts can create unlimited forms, user defined fields, and reports to continually leverage the MetaField platform.

Sample management, test assignment, and test queuing keeps lab operations visible and under control.

Understand the status of a sample the moment it is logged in Field all the way through preparation, curing, testing and reporting. Manage the scheduling of tests and the status of testing queues through a simple, intuitive user interface.

Real-time visibility enhances quality control.

Typically, the longer it takes problems to be addressed, the worse they become. By providing real-time visibility of field observations and test results, MetaField's built-in Dashboard enables engineers, lab managers and project managers to continuously monitor and review the status of testing and inspection work in real time. Project management engineers and professionals have greater quality control and minimize potential risk by no longer waiting on paper reporting to identify and address issues.

Data-driven vs. Document-driven - the secret to Data Mining.

Ever wonder how many specific inspections or tests are performed across your firm for a specific period or a specific client? Because MetaField manages discrete transaction data in a relational database, your data can be repurposed over time for production management, business intelligence, data mining, and OLAP applications. This feature stands in direct contrast to document-based systems that use electronic forms. For both data and reports, comprehensive data mining and data extract capabilities continually build on the value of your investment.

Report Generation, Report Repository, & Report Delivery - in one system.

When you rely on paper or even electronic forms, data is often consumed from the field in a manner that requires re-entering data in multiple forms and then finally into the report formats delivered to clients. MetaField's straight-through processing means data collected in the field flows into standard ASTM or AASHTO compliant client reports directly as an output of its database. All you do is review the data, select the transactions you wish to see on a report and click a button to generate a report. Business processes that are cross-functional and cross-departmental are supported for all of the various roles that make up discipline or line-of-business. There is no duplication of data entry or effort. Quality is improved by having a single point of data entered once by the originator. Word processing duties are dramatically reduced, so highly valued personnel can be reassigned to higher-value tasks.

Create Consolidated Report
Select, click, and drag-&-drop to create one PDF file from multiple reports.

Publish
The "Publish" function enables you to select reports to publish to AgilePort, your optional, privately-labeled customer portal.

Batch Print
Select as many reports as desired and print them in a desired order.

Upload
Upload external reports to manage them within the project repository. Eliminate the need for paper-based project folders.

Sign
As an option, MetaField enables users to select and click to apply an encrypted digital signature to one or more reports. Imagine the ability to digitally encrypt 25 or more reports at a time with your personal signature and PE stamp!

Batch Download
For communications or archiving purposes, create a compressed Zip file of project reports.

While one capability of MetaField is report generation, it also creates a secure repository for your reports so archived reports can be accessed in seconds. Query the MetaField database to view reports based on time periods, clients and other variables. MetaField can be configured for your report dissemination and delivery requirements, allowing you to select reports with one click. Then, MetaField can publish reports to almost any mechanism you use for report delivery–print/mail, email or AgilePort®. There's never been a faster way to deliver reports to clients and reduce project delivery cycle time while continuing to provide exemplary quality and customer service.

MetaField

Business features and functionality:

- Scheduling & Dispatch, Field, Engineering-Dashboard/Quality Control, Lab, and Report Delivery user interfaces
- Sample Tracking, Chain-of-custody, concrete sampling, field testing, special inspections, and observation tracking
- Field Density/Moisture testing for a variety of methods and materials (includes nuclear gauge standardization)
- DIY Forms Development: Highly configurable data entry/report forms creation interface enables development of specialized forms for almost any field activity imaginable. Supporting special inspections and field observations, the interface includes a paragraph library, template management, user-defined fields and forms, and many other features that enable you to support any line-of-business that you have now or may develop in the future.
- Image capture interface for supported mobile devices
- Voice-to-text and hand-writing-recognition enabled for compatible devices
- GPS tracking available for all mobile transactions
- Project communications field summary
- Workflow management to aid in high-volume testing operations
- Test failure/exception and discrepancy tracking
- ASTM and AASHTO standard reporting
- Available integration with AgilePort® - your privately labeled client portal
- Available AgileStamp® digital signature (personal signatures and Professional Engineer registration stamps) integration (batch/single)

Integration adaptors available for:

- Deltek Vision
- Microsoft Dynamics SL/AX
- BST
- Axium Ajera

Technology roadmap:

- With a Mobile-First and Cloud-First philosophy, we continually work with our customers and subscribers to extend the breadth, depth, and value of the MetaField platform.

System requirements and specifications:

- Mobile User: 3G/4G Cellular, Wi-FI, or wired internet-connected device with a JavaScript/HTML5 compatible browser
- Mobility Features: GPS services, camera, microphone, touch-screen, and local writing recognition may require specific hardware/local software capabilities
- Office User: Broad-band, commercial grade connection to the internet using PC with compatible versions of Google Chrome, FireFox, or Microsoft Internet Explorer

Implementation/Integration Requirements

MetaField can be integrated with other company-wide applications such as project accounting systems or CRM. It Is also available in a stand-alone alternative.

The MetaField Software-as-a-Service (SaaS) solution is a subscription-based service that is billed monthly for each subscriber and it pays for itself very quickly. For a comprehensive, no-cost return on investment (ROI) analysis, please contact Doug Bonestroo, VP of Business Development, at dbonestroo@ agileframeworks.com or 612-202-9011.