6 Key Reasons why organizations are looking to switch from paper forms to "industrial strength" mobile data collection and dispatch apps in order to remain competitive

1 Faster and more accurate collection of data,

2 Collection of richer more actionable data such as: images with annotation, audio, speech to text, GPS location, trusted time stamping, timers,

3 Scanning of bar/QR codes in order look up information on equipment, including repair videos and maintenance manuals

4 Data validation and transformation as well access to external data through web services

5 Calculations of any complexity

6 Ability to dynamically change the data fields based on any kind of conditions

What makes Alpha TransForm the first and only way for people in business units to build and deploy these "industrial strength" mobile data capture and dispatch apps themselves and do it extremely rapidly?

Once the data is captured, tasks like workflows, work order approvals, invoicing and notifications can be initiated immediately and automatically.

alpha
Software

Because of the shortage of developers of mobile apps, <u>70%</u> of the enterprise mobile apps that companies need, are going to <u>have to be built outside of IT</u> - Gartner

But the "no-code only" mobile forms and development platforms designed for use by people in business units, invariably **simply don't have the power to get the job done!**

In response to this un-met need Alpha, Software built

Alpha TransForm has been designed to enable people in business units to build and deploy "industrial strength" offline mobile data capture and dispatch apps....

alpha
TransForm™

is designed to let the "category 1" and "category 2" people in business units, build "industrial strength" enterprise mobile apps themselves and do so in anywhere between a few minutes and a few hours

Category 1:
Line of business people who are non-coders and are non technical, can build impressive data capture and dispatch apps in minutes

Category 2:
Business analysts and power users in business units with domain experience, (plus developers.)
They can build more sophisticated mobile apps by taking advantage of **TPL** – TransForm's simple but powerful programming language, on-device data support and its very rich **API**

The business analysts and power users are the same kinds people in business units who might use some VBA when using MS Excel

A good way to illustrate what makes TransForm unique is via a real-world example (Boiler Minder,) built in Alpha TransForm by a "category 2" person in a few hours.

(This app could not be built by any other platform aimed at empowering people in business units. Without TransForm, it would need to be built by a professional developer (using a low code platform or using traditional coding,) and it would take weeks to build and would cost tens of thousands of dollars.)

Boiler

is a mobile app designed to perform inspections and repairs on industrial boilers.
Its aim is to improve worker productivity and increase customer satisfaction levels
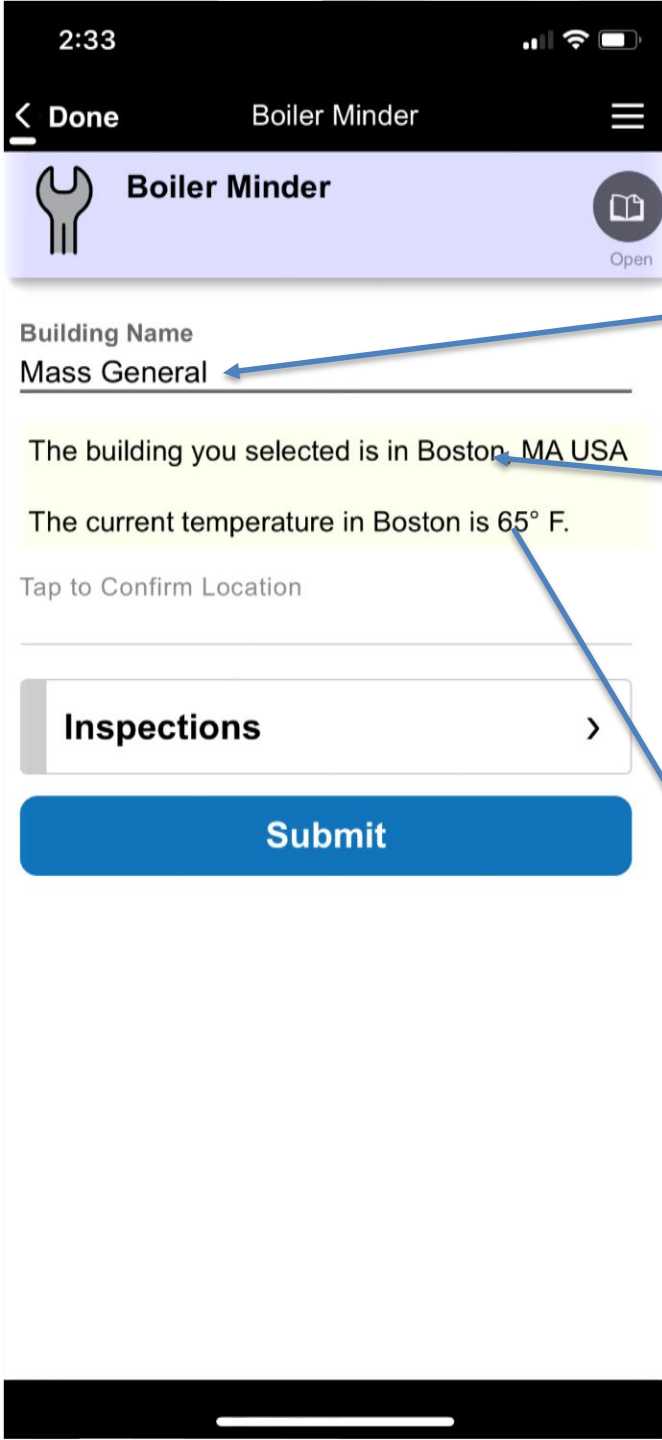
Minder

Is a practical real-world example of a mobile app built in TransForm by a "power user" in a business unit in few hours.

Non-technical in business units can also use TransForm to build less advanced apps.
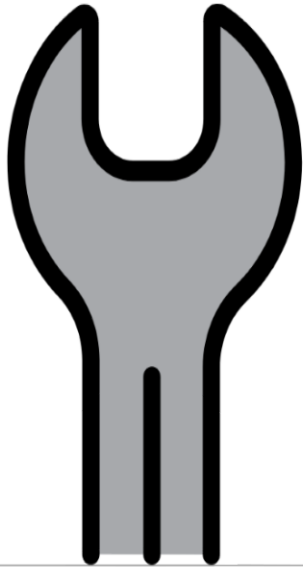
Boiler Minder takes advantage of TPL (TransForm's simple but powerful language,) TransForm's support for large amounts of on-device data and TransForm's rich API

TransForm has powerful offline capabilities for use in basements and other no signal situations

5

2:33

< Done   Boiler Minder   ☰

Boiler Minder

Open

Building Name
Mass General

The building you selected is in Boston, MA USA

The current temperature in Boston is 65° F.

Tap to Confirm Location

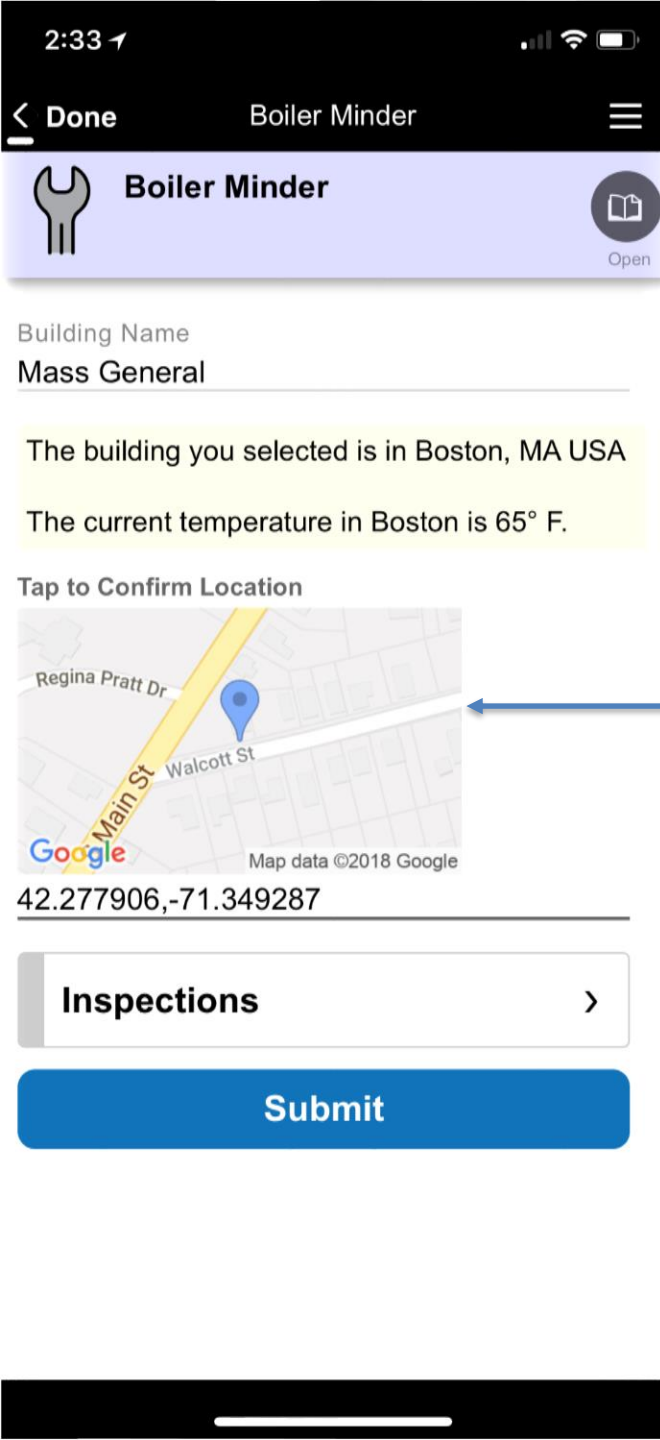**Inspections**   >

Submit

The app is designed to work both online and offline
It starts by asking the technician to select a building
from a list stored on the device.

When the technician chooses a building, information about that building,
such as the city in which it is located, is pulled from an
on-device data source which was populated when there is signal .

(Other information about the building such as permits, videos
and blueprints can also be stored on the mobile device and
is available for look-ups and accessing when offline)

If an Internet connection is available, the app performs a callback,
using its support for web services, to get the current temperature
for the city. The temperature is displayed and used later.

To confirm that the technician is at the correct location, the app uses the device's own GPS hardware and Google Maps. No connection is needed
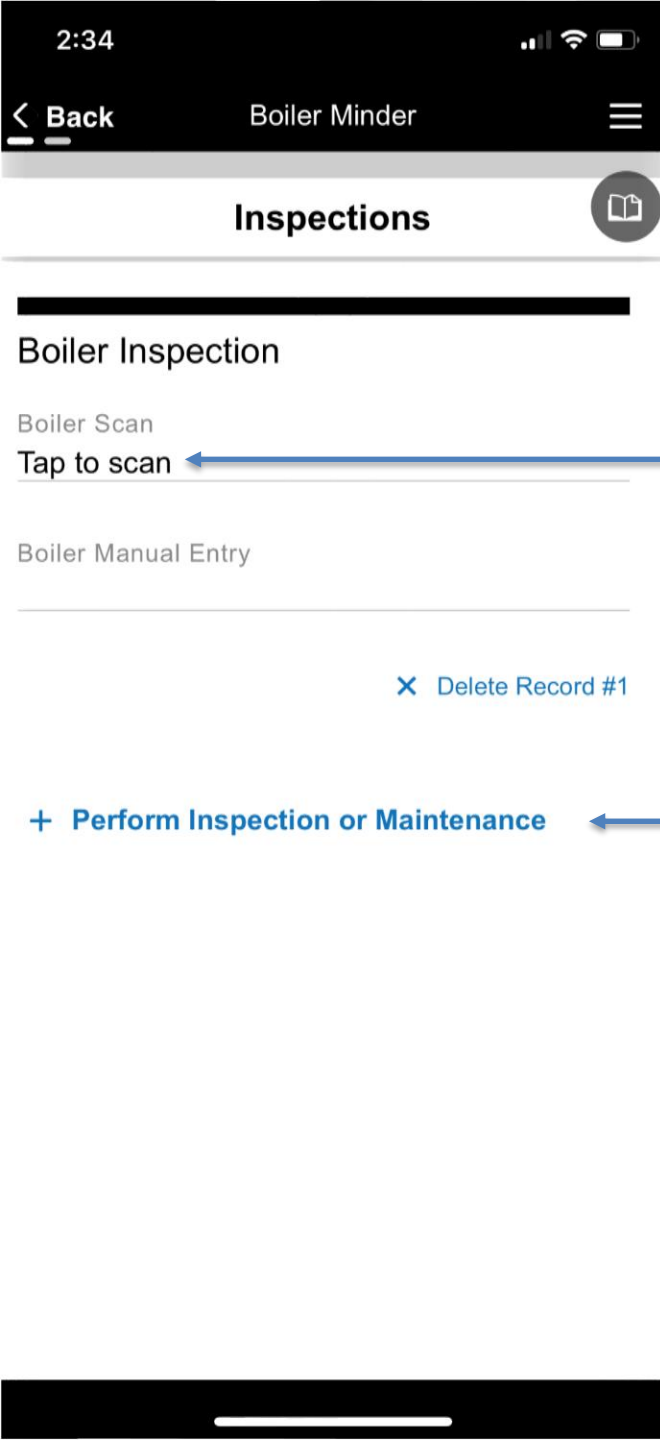
The inspection begins by either typing in an ID code or by scanning a barcode.

TransForm supports data structures of unlimited complexity. In this case, it automatically sets up a parent-child relationship (which we call a data group) to store multiple inspection records for each building.
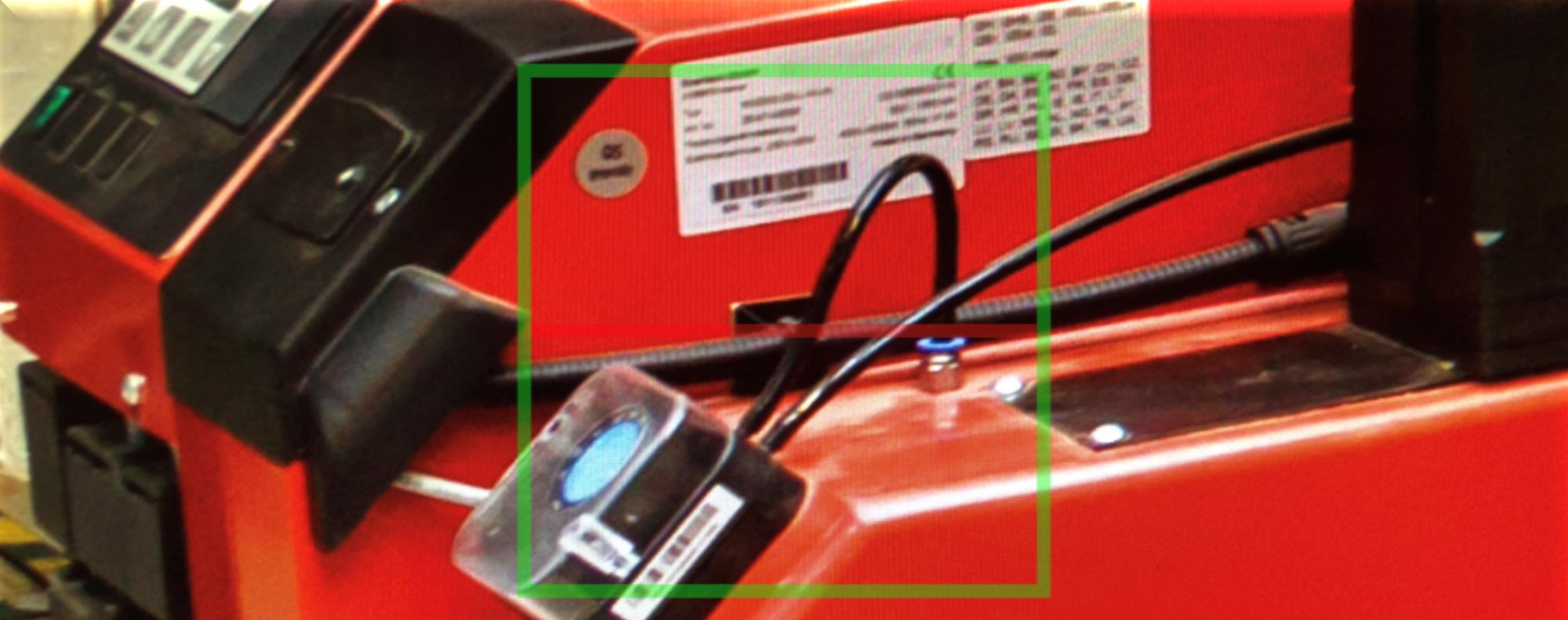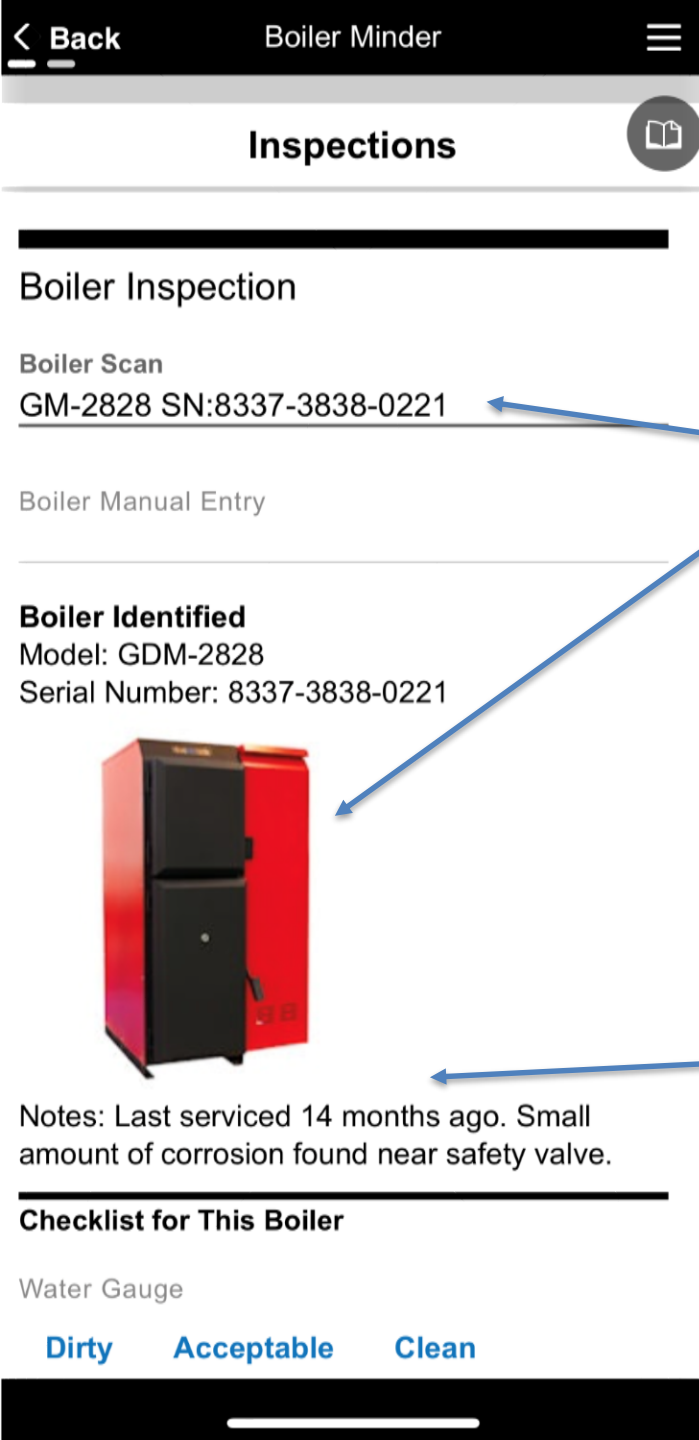
Cancel

The app uses the camera built into the device to scan codes.

(Identifying the type of equipment via scanning saves time, eliminates
 errors and provides access to repair documents, diagrams and videos
that the inspector may want to access when offline)

< Back   Boiler Minder   ☰

Inspections   📖

Boiler Inspection

Boiler Scan
GM-2828 SN:8337-3838-0221

Boiler Manual Entry

Boiler Identified
Model: GDM-2828
Serial Number: 8337-3838-0221

Notes: Last serviced 14 months ago. Small
amount of corrosion found near safety valve.

Checklist for This Boiler

Water Gauge

Dirty   **Acceptable**   **Clean**

Once the code is scanned, the app retrieves
information about the boiler, including its model,
serial number, and a photo of the equipment from the
on-device data store assuming there is no signal.

(If there was signal, data could be retrieved from a corporate
database or from a web service using TPL and the API)

Some of the information it retrieves includes
when the unit was last serviced, and any notes
that might be important.

Based on the type of boiler that is being serviced, the app provides a custom list of items to inspect.

The ability to enable experienced inspectors to easily create and update an app that captures their best practices, assures consistent inspection practices maintains quality and transfers their institutional knowledge to other workers.

Because the technician indicated that the water gauge is dirty, a note appears telling them that they should clean it the next time the system needs to be be serviced.

This is all done through a very easy "If...Then" Feature in TransForm
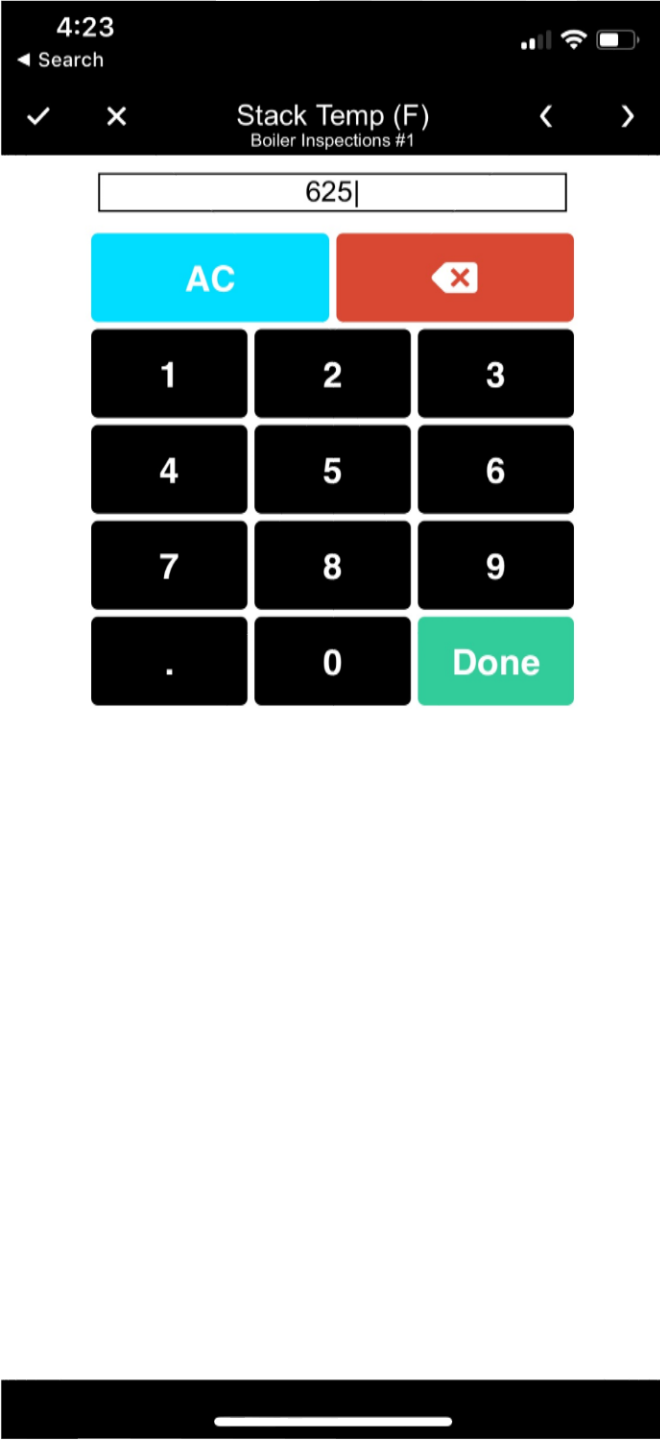
For the Stack Temperature (i.e., the temperature of the gasses going up the chimney and other numeric fields,) a mobile optimized keyboard is provided with big buttons to make typing more efficient.

Checklist for This Boiler

📖

Water Gauge

Dirty　　**Acceptable**　　**Clean**

Unlless Water Gauge is completely opaque, cleaning is not recommended unless unit will be taken out of service for other reasons.

Clean Piping and Float Chamber

Not Done　　**Done**

Stack Temperature Gauge Reading (F)

625

You indicated a temperature of 625. The normal reading is 500 or below. Please confirm this value.

Re-check　　**Confirm**

Photo of Safety Valve (please circle any signs of corrosion)

Tap to capture image

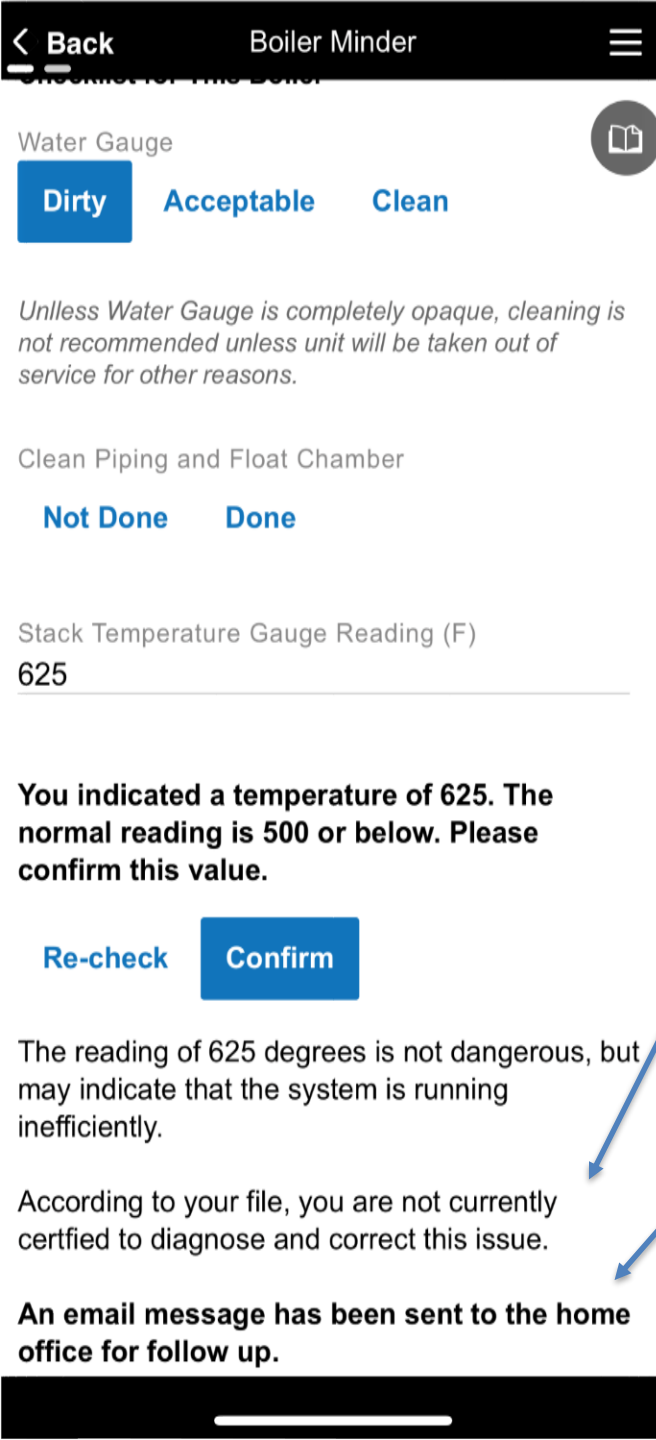Level of Corrosion Around Safety Valve

None　　**Mild**　　**Moderate**　　**Severe**

A a note appears based on the data that was entered. In addition, there are now buttons prompting the technician to confirm this reading since it falls outside of the normal range.

14

Water Gauge

📖

Dirty   **Acceptable**   **Clean**

Unlless Water Gauge is completely opaque, cleaning is not recommended unless unit will be taken out of service for other reasons.

Clean Piping and Float Chamber

Not Done   **Done**

Stack Temperature Gauge Reading (F)
625

You indicated a temperature of 625. The normal reading is 500 or below. Please confirm this value.

Re-check   **Confirm**

The reading of 625 degrees is not dangerous, but may indicate that the system is running inefficiently.

According to your file, you are not currently certfied to diagnose and correct this issue.

An email message has been sent to the home office for follow up.

With the reading confirmed, the device checks its on-device database to see if the technician is qualified to make the repairs.

Since the technician is not qualified to perform this aspect of the repair, the app automatically sends an email to the home office for follow up. (The technician can still continue on with the rest of the assignment)

TransForm allows the technician to determine the resolution of the photos that you take. Medium resolution is sufficient for most purposes, and saves space on the device. In this case, however, we used high resolution to see more details.

(TransForm allows the technician to take an unlimited number of pictures without the designer of the app having to specify, ahead of time, how many pictures are allowed.)

With built-in annotation and zoom, the technician can circle items of interest. In this case the safety valve is moderately corroded.

The technician can choose the thickness of the line and the color of the ink. Blue was used here for contrast.

Another field could have easily been added to record any strange sounds the boiler might be making for use by the boiler manufacturer

In this case the technician selects "Moderate" after viewing image

A *notes* field allows the technician add any notes by taking advantage of the *voice to text* support built into TransForm

Boiler Minder — 2:58

‹ Back

Level of Corrosion Around Safety Valve

None Mild **Moderate** Severe

You have indicated
a moderate amount of corrosion.

For safety, this part should be replaced soon.

- You currently have the correct replacement part (CSX22-B) in your truck.
- The estimated cost for parts and repairs is $957.10.
- The current temperature in Boston is 65 degrees, which means there will be minimal impact on the comfort of the occupants.
- While peforming this repair, it is reccommended that you also disassemble and clean the water gauge, which you have indicated is dirty. The service is $40 bringing the total estimate to $997.10.

Please contact the facility manager for approval.

Jan Jacobs (manager)
555-555-1212
Tap to Call

Once the technician selects the choice "moderate" for the level of corrosion around the safety valve, a new section appears detailing what work needs to be done, the is estimated to cost, and who needs to approve it.

The app already knows the replacement part that is needed based on an on device database lookup triggered by scanning the barcode. It then determines that the part is in the technician's truck.

The on-device database also knows the prices of parts and labors for common repair, and uses them to create an estimate of repairs.

The app uses the current temperature that it collected earlier and determines that now would be a good time to perform the service. Had the outside temperature been low, different instructions would appear

The app also knows that the add-on service (cleaning the water gauge) can be performed It adds this to create a new estimate total.

Finally, the app looks up the contact information for the person who needs to approve the repair, and can even initiate a phone call.

19

degrees, which means there will be minimal impact on the comfort of the occupants.

- While peforming this repair, it is reccommended that you also disassemble and clean the water gauge, which you have indicated is dirty. The service is $40 bringing the total estimate to $997.10.

Please contact the facility manager for approval.

Jan Jacobs (manager)
555-555-1212
Tap to Call

Has the Facility Manager Approved The Repair Estimate?

Yes   No

Inspector Signature
Tap to sign

✕ Delete Record #1

+ **Perform Inspection or Maintenance**

If the repair is approved, the work can proceed otherwise no further work will be performed and the technician will sign off.

Another field could be added here to capture the voice of the Facility Manager approving the repair

The business value of all the functionality described in the yellow section is that repairs can be identified, parts located, quotes obtained and work orders approved instantly while the tech is on site – significantly cutting the time to get something fixed and leading to happier customers..

When/If the repair is approved, three new options appear. One shows instructions and guides on how to complete the repairs – another starts the timer to measure the length of the repair and the 3rd item indicates if the repair was successful.

The app knows what repairs need to be performed and shows relevant videos and documents

TransForm lets one store documents, videos, and other data in on device storage. This means that these assets can be accessed even if there is no internet connection.
Very large amounts of data can be stored

Jan Jacobs (manager)
555-555-1212
Tap to Call

Has the Facility Manager Approved The Repair Estimate?

Yes   No

Maintenance Instructions #1   ›

Click Stopwatch to Log Time for Repairs

⏱ Tap to stop timer ■

Was Maintenance Successful?

Yes   No

Inspector Signature
Tap to sign

✕ Delete Record #1

+ Perform Inspection or Maintenance
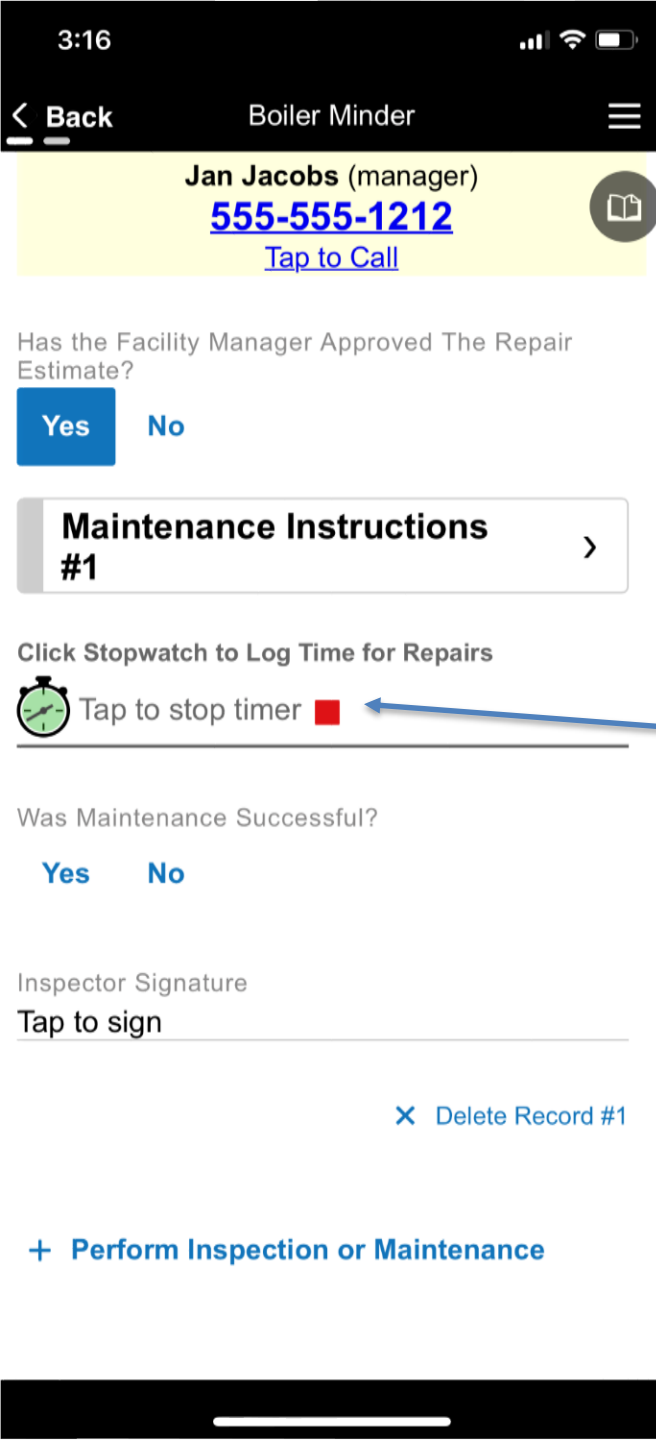
The application includes a "stop timer" that allows the technician to record the time it took to complete the repair. This data is used later to calculate the invoice.

3:25

< **Back**   Boiler Minder   ≡

Maintenance Instructions #1

Click Stopwatch to Log Time for Repairs

Tap to start timer ▶

Was Maintenance Successful?

Yes   No

Time and Cost Summary

Time to Repair: 2.5 Hours (at $75/hour)
Cost of Labor: $187.50
Estimate of Parts Plus Labor: $997.10
Actual Parts and Labor: $959.60

Invoice this Now?

Yes   Not Now

An invoice has been sent to the property manager.

Inspector Signature

2018-10-29 15:25:16

When a repair is marked as successfully completed, the app calculates a time and cost summary based on the parts used and the time taken.

When the technician clicks yes to the "Invoice This Now" question, a detailed invoice is automatically generated and sent to the client for payment – thus speeding up payment

When the inspection and repairs are complete and an internet connection becomes available, the maintenance, repair, and billing data are all sent to the server. The tech has no paperwork to do, and can now move on to the next job.

Finally to ensure maximum flexibility, the work done in Alpha TransForm can be extended through the use of Alpha Anywhere

(Alpha Anywhere is Alpha's general purpose low code platform for building web and mobile apps)

Business unit non-coders → **Business unit power users** → **Professional developers**

"Non-coding" Line of Business workers can build mobile apps in Alpha TransForm

Line of Business "power user" workers can build mobile apps in Alpha TransForm & can leverage the power and control possible with TPL, on device data & the API

Professional developers can leverage the work done in Alpha TransForm and can go further with Alpha Anywhere which has virtually unlimited power to build mobile & web apps

Category 1:
Domain experts

Category 2:
Tech Savvy Domain experts

Category 3:
Strong development skills
No domain experts

Alpha is the only company with a platform that spans the requirements of category 1, 2, 3

InfoWorld FROM IDG
Technology of the Year

Gartner
peerinsights™
Top rated

BOEING   AVIS   MERCK   (intel)   Kawasaki   xerox