



Creating the New Face of Buildertrend

Team Name: sddec20-07

Team Email: sddec20-07@iastate.edu

Team Members: Joshua Bump, Dallas Evers, Kailyn Mann-Calaway, Melissa Hernandez, Mitchell Knoth, Darnesha Randle

Team Leader Email: drandle@iastate.edu

Project Overview



- Our client Buildertrend is in the process of converting outdated ASP.NET pages into ReactJs
 - This process will make Buildertrend's website easier to maintain and more efficient
- Our team's job is to help Buildertrend convert pages to ReactJs
- Our team has been given the task to migrate over an internal user modal that is in charge of managing the users permissions, notifications, job access, preferences, and accounting aspects

Overview Page



Overview Plan

Internal User Details

Save

Overview | Permissions | Notifications | Job Access (14) | Preferences | Accounting

Overview Invite accepted on Nov 7, 2018 Active

First Name * **Last Name ***

Email **Cell Email**

Phone Number

Role *

[Manage Roles](#)

Full Admin Permissions →
Access to perform all actions on every item in Buildertrend.

Notifications →

Job Access →

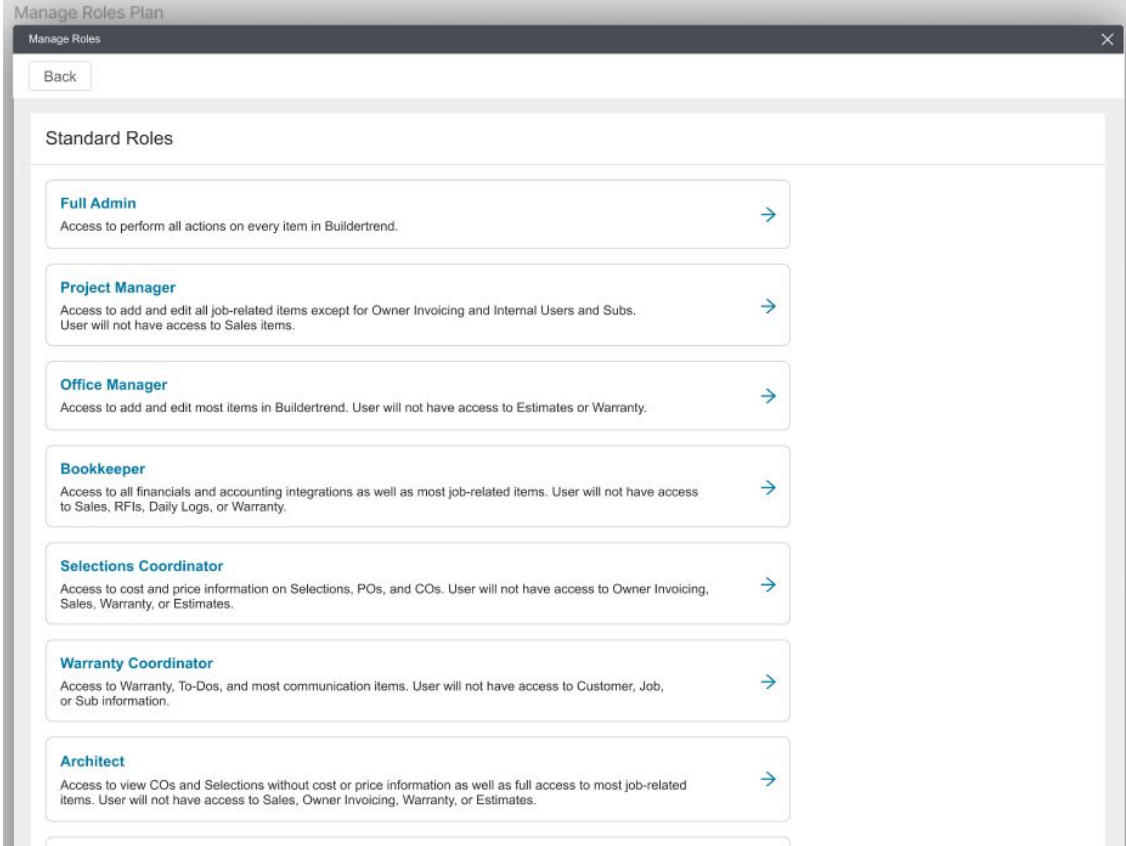
Grant automatic access to new jobs.

User Information

Sarah Biben
Full Admin

Email
sarah.biben@buildertrend.com

Permissions Page



Manage Roles Plan

Manage Roles

Back

Standard Roles

- Full Admin**
Access to perform all actions on every item in Buildertrend. →
- Project Manager**
Access to add and edit all job-related items except for Owner Invoicing and Internal Users and Subs. User will not have access to Sales items. →
- Office Manager**
Access to add and edit most items in Buildertrend. User will not have access to Estimates or Warranty. →
- Bookkeeper**
Access to all financials and accounting integrations as well as most job-related items. User will not have access to Sales, RFIs, Daily Logs, or Warranty. →
- Selections Coordinator**
Access to cost and price information on Selections, POs, and COs. User will not have access to Owner Invoicing, Sales, Warranty, or Estimates. →
- Warranty Coordinator**
Access to Warranty, To-Dos, and most communication items. User will not have access to Customer, Job, or Sub information. →
- Architect**
Access to view COs and Selections without cost or price information as well as full access to most job-related items. User will not have access to Sales, Owner Invoicing, Warranty, or Estimates. →

Permissions Page

Add New/ Edit Role - Manage Role Plan

Manage Roles

Save Back Delete

Permissions Assigned Users (3)

Internal User Custom Role Setup Copy From Another Role

Role

Melk's Role

Role Description

This role is created for Mari to test the Internal User Custom Role Setup permissions.

	View	Add	Edit	Delete
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sales

- Assign salesperson
- View other salesperson leads and activities
- Convert to job
- Export to Excel

Project Management

Schedule	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Set baseline	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Daily Logs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
To Do's	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Assign users	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Global - can see all To Do's	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change Orders	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Selections	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Preferences Page

Preferences Plan

Internal User Details

Save Save & New

Overview Permissions Notifications Job Access (14) Preferences

Preferences

User Settings

Archive User

Username *
Meik1234

Password

Reset

Schedule

Alert when there are multiple Schedule Item Conflicts

Schedule Item Conflicts

3

External Calendar Intergrations

[Learn how to create a feed for your iCal, Google Calendar, or Outlook](#)

Schedule Items
-- All Schedule Items Selected --
Create Feed

Lead Activities
Cows Fly Inc Activities
Create Feed

To-Do's
-- All To-Do's Selected --
Create Feed

Time Clock

Require location on mobile and track when lan clocks in or out beyond the geofence.

User Information

Sarah Biben
Full Admin

Email
sarah.biben@buildertrend.com

Preferences Page

Time Clock

Require location on mobile and track when I am clocks in or out beyond the geofence.

Default labor cost code

Default Labor Cost

Message Preferences

Message Signature

Font | Size | **A** **B** *I* U **S**

Message Signature Image



Contact

Contact Information

Textarea caption message.

Custom Fields

Notifications Page

Notifications Tab

Internal User Details

Save Save & New

Overview Permissions Notifications Job Access (14) Preferences

Notifications

Browser notifications are on. To stop receiving browser notifications, go to your browser settings and choose 'block notifications.'

	Email	Text	Push	All Users
Sales				
Leads	Other employee contact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	New lead from contact form	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Lead salesperson changed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Activity Reminder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Email quota reached	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Assigned to lead activity by another user	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Lead proposal accepted/declined	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Lead proposal viewed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Link clicked by lead	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Payment made on proposal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Lead proposal past due	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Project Management				
Schedule	User needs to confirm a schedule item	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	User confirmed a schedule item	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	User declined a schedule item	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	New comment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Daily Logs	New Daily Log	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	New comment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To-Do's	Completed or re-opened by another user	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

User Information

Sarah Biben
Full Admin

Email
sarah.biben@buildertrend.com

Job Access Page

Job Access Tab

Internal User Details

Save Save & New

Overview Permissions Notifications Job Access (14) Preferences

Job Access

	Job Name	Job Status	Date Opened
<input checked="" type="checkbox"/>	Aaron Smith	Open	Oct 01, 2019
<input type="checkbox"/>	Bricks	Open	Jun 11, 2019
<input type="checkbox"/>	Brown - 5521 Elmwood - H.24001	Open	Jan 07, 2014
<input type="checkbox"/>	BT Media Schedule	Open	Feb 28, 2020
<input type="checkbox"/>	Clarkson Commercial Remodeling Services	Open	Aug 23, 2019
<input type="checkbox"/>	Corby - 541 S. 198th St - H.24002	Open	May 30, 2017
<input type="checkbox"/>	Dugger - 321 A. St - H.24003	Open	Jan 07, 2014
<input type="checkbox"/>	Karen - 1345	Open	May 31, 2019
<input type="checkbox"/>	Lamason - 26 Tall Lane - H.24004	Open	Jul 08, 2015
<input type="checkbox"/>	McKenna - 11818 1 St. - H.24005	Open	Nov 26, 2018
<input type="checkbox"/>	Rodger Atkins	Open	Jun 12, 2019
<input type="checkbox"/>	Rodger Atkins	Open	Jun 12, 2019
<input type="checkbox"/>	Smith - 125 B St. H.24006	Open	Aug 08, 2018
<input type="checkbox"/>	Sub Demo	Open	Jun 11, 2019
<input type="checkbox"/>	Thomas - 414 S. 198th - H.24007	Open	Oct 17, 2016

User Information

Sarah Biben
Full Admin

Email
sarah.biben@buildertrend.com

Software Design



InternalUserDetails

InternalUserDetails API—This is where API calls for the whole modal are made.

InternalUserDetails.tsx—This is where the React State and Props are defined for IURD. One of the required props is an `InternalUserEntity`, which is necessary to be able to retrieve all of the relevant data for this modal and its tabs.

InternalUserDetailsPresentational.tsx —To keep things organized, most of the visual renderings are handled in this presentational class, not in the `IUD.tsx` file. This is where we'll begin making changes and adding the tab presentationals.

InternalUserDetailsPermissions

IUDP API—This is where API calls for the permissions tab are made.

IUDP.API.types—This is where entity types to be used in this tab are defined.

IUDP.tsx—The state and props are defined, as well as where our API handler is used. The layout is designed this way so that there is a minimal amount of logic happening in the presentational layer.

IUDP Presentational—This is where the rendering for the permissions tab, inner modals, buttons, etc. is taken care of. Any data that is being used here should be passed in by the IUDP.tsx file.

Timeline



- Completed by
 - Oct 15: Permissions and Job Access
 - Nov 1: Notifications
 - Nov 15: Preferences
- We will be meeting with our client soon to discuss future milestones

Challenges



- Our team is working entirely remote due to the pandemic. Buildertrend is also working remotely currently, which has affected the availability of our project advisors.
- It took many weeks for us to receive access to Buildertrend's VMs
 - Just received access ~2 weeks ago, so we have been unable to work on the new pages until then

Technical Challenges



- Often times, different team members are locked out of the BT repos and accounts. This can be a big time drain.
 - The BT Team Help group is only available during business hours, which means if we are locked out of our accounts, we must wait until the next business day to have the problem addressed

Our plans/goals for the semester



- Finish the pages assigned to us, ideally more
 - Code the new pages
 - Work with Buildertrend to work through technical problems that contribute to delayed development
- Thoroughly document the processes
- Updating Tech Discovery for future employees to reference