

ConnectPay Upgrade

Responsive Employee Portal
GL Export and Spreadsheet
QuickBooks Integration and Notifications

Story by [Savić Rašović](#), June 2023

About ConnectPay

Payroll enterprise software solutions for small businesses with seamless integration with CPA, QuickBooks, worker's comp & 401k.



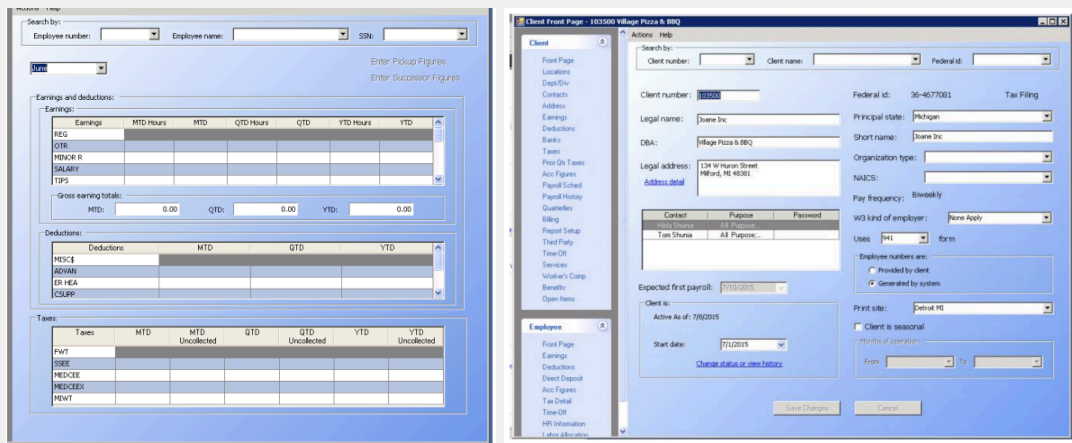
My Role

UX/UI Design, Usability Research, Front-End Dev, Illustrations

Goals

Design and develop a ConnectPay responsive web application suite.

- Employee and Client Portal and transfer Citrix CSR functionality to the web.



CitrixClient and employee setup interface they were using.

- Setup and export General Ledger (GL) and account mapping.
- Spreadsheet web interface with drop and drop tables
- Integrate web app with Quickbooks.
- Text and email notifications.

Responsive Employee Portal

Rules:

- Phone numbers can be added, edited or deleted
- Should duplicates be prohibited?
- Type is not required
- Existing employee phone numbers will default to type of 'undefined' (blank)
- Only one phone number can be marked as primary. If there is only one phone # for the employee it will be marked as the primary.
- Remove phone number – user should be prompted with "Are you sure you want to delete phone number ###-###-####?"
- Phone number records should be saved once complete. User should not be required to also select the screen 'save changes' button.
- Changes to phone numbers should be logged and notifications sent to employee via employee's preferred notification method.

HR Information

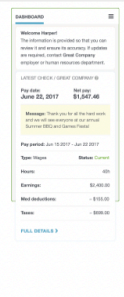
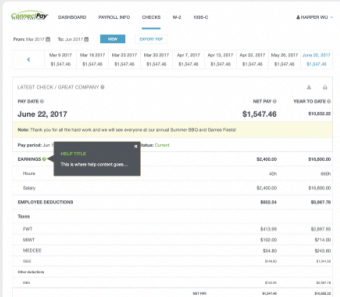
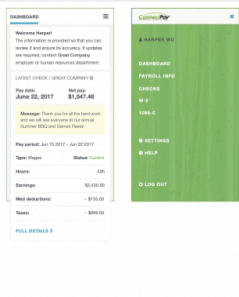
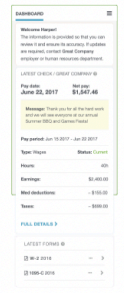
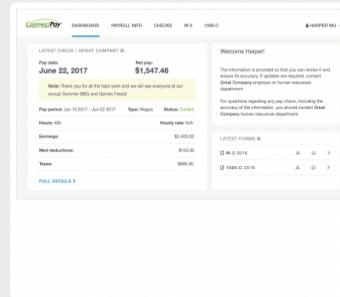
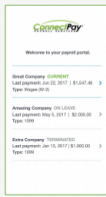
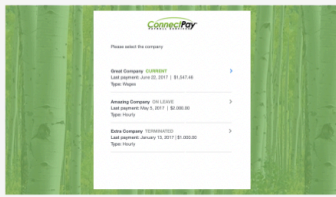
Hire date: New Hire
Original hire date:
Birth date:
Title:
Race:
Occupation:
Gender:
Full/Part-Time:
Review date:
Employee email:

Phone Number	Type	Primary	
123-456-7890		<input checked="" type="checkbox"/>	<input type="button" value="remove"/>
123-456-7891	mobile	<input type="checkbox"/>	<input type="button" value="remove"/>
123-456-7892	office	<input type="checkbox"/>	<input type="button" value="remove"/>

- Employee is Owner/Officer
 Employee is seasonal

Worker's Compensation

Code: **State:** MA **Rate:**



ConnecPay DASHBOARD PAYROLL INFO CHECKS W-2 1095-C HARPER WU

From: Mar 2017 To: Jun 2017 EXPORT PDF

Mar 9 2017	Mar 16 2017	Mar 23 2017	Mar 30 2017	Apr 7, 2017	Apr 13, 2017	Apr 22, 2017	May 26, 2017	June 22, 2017
\$1,547.46	\$1,547.46	\$1,547.46	\$1,547.46	\$1,547.46	\$1,547.46	\$1,547.46	\$1,547.46	\$1,547.46

LATEST CHECK / GREAT COMPANY

PAY DATE June 22, 2017 **NET PAY** \$1,547.46 **YEAR TO DATE** \$10,832.22

Note: Thank you for all the hard work and we will see everyone at our annual Summer BBQ and Games Fiesta!

Pay period: Jun 1 Status: Current

EARNINGS	\$2,400.00	\$16,800.00
Hours	40h	660h
Salary	\$2,400.00	\$16,800.00
EMPLOYEE DEDUCTIONS	\$852.54	\$5,967.78
Taxes		
FWT	\$413.99	\$2,897.93
MIWT	\$102.00	\$714.00
MEDCEE	\$34.80	\$243.60
SSEE	\$148.80	\$1,041.60
Other deductions		
MED	\$152.95	\$5,967.78
NET PAY:	\$1,547.46	\$10,832.22
Deposit Check *****6-02:	\$100.00	
Balance Chk #1338:	\$1,447.46	

CHECKS

SELECT DATE RANGE
From: Mar 2017 To: Jun 2017

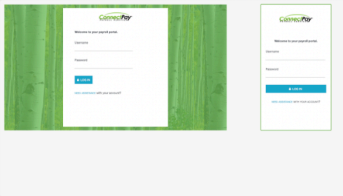
Jun 22 2017 \$1,547.46

LATEST CHECK / GREAT COMPANY

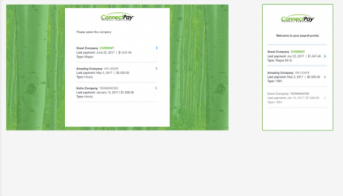
Pay date: June 22, 2017 Net pay: \$1,547.46

HELP TITLE
This is where help content goes...

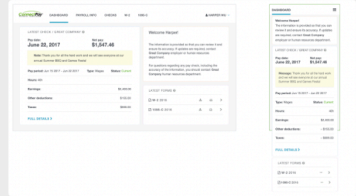
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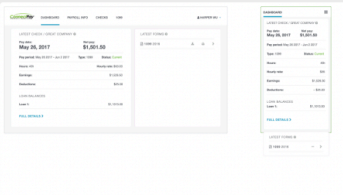
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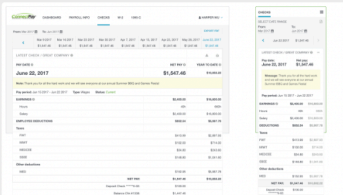
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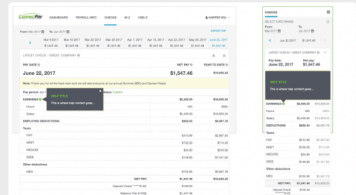
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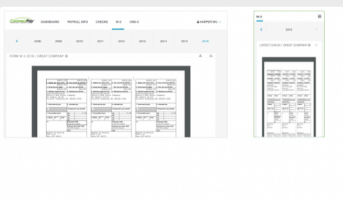
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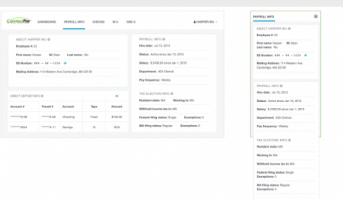
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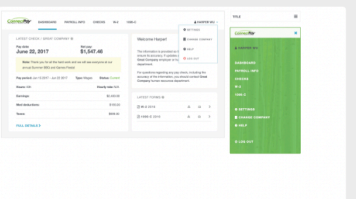
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8



9



10

Producing GL Export Files

Client Reports GL Payroll Checks (tab) Screen

Check/Voucher | Journal | 401K | Bank Recon | Worksheet | Time-Off | Cash Requirement | **GL Payroll Checks** | Payroll Data

Code: Name:

Frequency: Per Payroll Date added: 7/15/2011

Report output:

File type:

GL Account:

Offset:

Selected items below will be added to the check file.

Selected	Record Type	NAME	DOCNUM
<input checked="" type="checkbox"/>	940	940 Tax	940TX
<input checked="" type="checkbox"/>	941	941 Tax	941TX
<input checked="" type="checkbox"/>	BILLING	Payroll Bill	99520
<input checked="" type="checkbox"/>	CASUI	CA Tax	CATX
<input checked="" type="checkbox"/>	CASWT	CA Tax	CATX
<input checked="" type="checkbox"/>	DIRDEP	EMP Pays	101003
<input checked="" type="checkbox"/>	MASUI	MA Tax	MATX
<input checked="" type="checkbox"/>	MASWT	MA Tax	MATX
<input type="checkbox"/>	ALL LOCALS		

Spreadsheet Web Interface

Drag and drop, organize columns and rows, and map classes and departments so you can share a CSV or export to QuickBooks.

	GROSS	OVERHEAD Debit			
	NET PAY	REMODEL Debit			
	SALARY	Debit			
	VAC	Select GL Account Select Debit / Credit			
	OFFSET	RECONSTRUCTION Credit			
^ Deductions	Department	SALES Class 1	OPERATIONS Select Class	MAINTENANCE Select Class	DEPLOYMENT Select Class
	DENTAL	Select GL Account Select Debit / Credit	Class 1 Class 2 Class 3 Class 4	Select GL Account Select Debit / Credit	Select GL Account Select Debit / Credit
	HEALTH	Select GL Account Select Debit / Credit		Select GL Account Select Debit / Credit	Select GL Account Select Debit / Credit
	401K	Select GL Account Select Debit / Credit	Select GL Account Select Debit / Credit	Select GL Account Select Debit / Credit	Select GL Account Select Debit / Credit

Integrations with Quickbooks Online and Quickbooks Desktop

Payroll Clients will be able to produce an export file [comma separated (.csv) or QuickBooksTM (.iif)] of the payroll checks produced.

Client Reports GL Payroll Totals (tab) Screen

Bank Recon	Worksheet	Time-Off	Cash Requirement	GL Payroll Checks	Payroll Data	ING Export	GL Payroll Totals
Code:	GLPAYTOT			Name:	General Ledger Payroll Totals		
Frequency:	Per Payroll			Date added:	3/31/2014		
Report output:				File type:			
				Comma Separated Quickbooks			

Text and Email Notifications

We proposed to notify the employee when:

- Pay reporting is available
- They complete the account confirmation steps; the PIN is sent
- Cell phone change (once captured)
- Documents need action (Document capture project)
- Client/Payroll User Notifications

To notify client/payroll user when:

- Payroll Submission is due
- Payroll reporting is available
- Quarterly/Year-end reporting is available
- Client/Payroll user account is added/removed
- EE account is locked with the option to unlock in the message (requiring a user to sign in to the site)
- Documents need action (document capture project)
- Documents action occurred (document capture project)

Challenge

Replace existing GUI and update the web application to make GL Export and QuickBooks integration fast, reliable, adoptable, and easy to use for ConnectPay clients and partners.

Satisfy the needs of internal stakeholders and users, and users who are accustomed to tabular data interfaces. We had to allow them not just to fill out but to organize their spreadsheet, their columns and rows, as easily as doing it in Excel. But better!

It looks, good, but does it allow each payroll element to be split between multiple classes?

For example, we have a client who splits his compensation by % between two classes. So we split the gross pay, the payroll tax, and the processing fee between the two.

	Class 1	Class 2

Gross	xxx	xxx
Tax	xxx	xxx
Fee	xxx	xxx

Solution

Responsive, UI framework, User Research, Expert Task Reviews, Iterations, Speed.

If the payroll system had split up the type by department, division, job code, or location we would be able to assign a class to each of those and split between the classes. We were not planning on offering the ability to manually specify a % split between classes in the export configuration feature.

Do you think it would be useful to designate percentages across classes in the export configuration rather than using the payroll's designation of departments? In this case, you'd be able to select a class (in addition to departments) and enter a % summing up to 100%.

By using the Angular UI framework we opted for using a table library so we could extend the functionality to drag and drop customizable web spreadsheet tables.

- HTML Report / Table / Inline Edit Library
- HTML Angular UI framework Dev and QA

Process

- Kickoff and Project Plan
- Ux Research and Requirements Gathering/IA
- Wireframes and sketches of native admin UI to web
- Wireframes and sketches from native to web
- Feedback and iterations
- Dev and QA

User Research and Methods

Qualitative Individual Interviews

I conducted interviews with internal and external users and stakeholders. Some were users of ConnectPay Payroll Software, and most were using Excel and QuickBooks for all their GL needs. Some ConnectPay clients were not using the full enterprise suite because it didn't have the GL account mapping and export.

Interviews focused on the client process around payroll and GL export needs and functionality. We also reviewed Account Mapping and Spreadsheet UI as part of the integration functionality.



- "I like the Default vs Advanced but can we customize those templates?"
- "Where are the amounts entered and how do I split them so this much goes to Gross and this much to Net?"

- “But what about clients who have Class based accounting in QBO?”

GL Export UX Interview: Misty Viera

Misty Viera
Misty is a chief bookkeeper who does not use her web own site but does use ConnectPay software to get the right amounts in her GL. She gave us 1.5 hours of her time because she wants to use a solution such as GL Export.

Most of her clients are founders and owners so Misty has to take into account their dreams, personalities, and emotions. Her business is very much about nurturing a relationship and leading her clients so that they are prepared to grow.

The usability method applied is known as Qualitative Individual Interview. For more information see Normal/Nielsen and Usability.gov.

GL Client Process Flow
Misty has two very distinct groups of clients:

1. For-profit
2. Non-profit


The main challenge here is that you have to do a bit of “juggling” between the two because they have a completely different accounting process, nomenclature and methodology. Almost no one wants to deal with non-profits because of this.

They handhold their clients and prefer to help them set up the accounting because if they do not, they have to do much cleanup and reconciliation. Many of their clients start the accounting work but soon give up during what they need to do. Misty steps in to make sure everything is done and on time. If a business is audited she makes sure everything has a match and can be traced properly.

Small businesses and for-profit corporations do not care as much about every line item but care about reconciliation. The amount of dollars withdrawn should match, but if you spend money on gas you just have to note it as gas. However, if you are a non-profit that is not just gas but needs to be allocated to a additive line items under a specific budget source.

Non-profit corporations maintain and accounts bookkeeping but QBO has a line item limit. For-profit corporations want to ensure that reported amounts match and so there is no need to get highly granular in QuickBooks Online. But they have to be able to account for every cent and where it comes from. So big or small amount of line items amounts are key.

She thinks her process is a bit fragmented right now and would like to make it more efficient and streamlined. To solve issues they use ConnectPay Payroll Totals Reports and they go to the last page to get the amounts for Gross, Net, EE and ER Taxes, etc.



Mockup Review

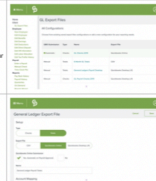

General Feedback and Comments


- Misty is very confident around software and wanted to show us she can handle it. We tried to make this less about someone knowing how to use the software and more about doing it better some of the issues we chatted about for profit vs non-profit, being able to use ConnectPay more efficiently and fast, open her time to client work.
- She was very pleased that we are doing the General Ledger but kept asking if we are going to also change her Payroll Grid. In other words she wants that option also in new design. We mentioned that these features have been worked on but not by us and not in the round.
- She had no issues with the mockup and through our walkthrough we focused on her clients and major issues such as splits and classes.
- “I am ready to be a member of this team and I will keep helping with this software. I want efficient and streamlined!”

What about Payroll
As a user and ConnectPay client she sees very curious about doing the end of the services such as what she called Payroll Grid. She thought our GL approach was close to her.


GL Export Setup
This made sense to them, both Totals and Checks.

They liked that a configuration QBO can be exported and manual.

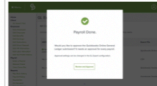





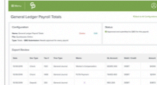
Integration with QBO
“This is huge for us. It can really help us handle our work.”




Status
Status provides more sense because she can see needing to be able to control this.



Amount
She wanted to know looking at the preview where she can just edit or enter the Amounts.





The usability method applied is known as Qualitative Individual Interview. For more information see Normal/Nielsen and Usability.gov.

User Stories

ConnectPay provided us with numerous user stories, explaining all their steps using their existing suite, native apps, and additional tools.

- The SB/Client users want to maintain employee phone numbers and types.
- The employee wants to add/edit his/her phone numbers and types.
- The employee wants to edit his/her email address.

Base Application– Employee HR Information page

Rules:

- Same as defined for Client Web Employee HR Information screen

Birth date: 06/25/1992 SOC Code: Search

Race: Title: Occupation: Employee is Owner/Officer

Gender: Hire date: 11/5/2010 New hire Worker's compensation: Code: State: WA Rate: 0.7500%
 Owner does not participate in Worker's Comp

Original hire date: 11/5/2010 Employee is seasonal

Full/Part-time: Primary phone: 123-456-7890 view all

view date: 7/1/2013 WA corporate officers approved by ESD to opt out of unemployment benefits

ographic code: Non payroll retirement plan for W2 box 13 reporting

Employee email: pthomas@aglepayroll.com

Phone Number	Type	Primary	
123-456-7890		<input checked="" type="checkbox"/>	<input type="button" value="remove"/>
123-456-7891	mobile	<input type="checkbox"/>	<input type="button" value="remove"/>
123-456-7892	office	<input type="checkbox"/>	<input type="button" value="remove"/>
<input type="button" value="Add new phone"/>			

Designing

We built a responsive web app using Angular UI components and customized front-end to deliver a responsive front-end interface, a web app for integrating with QuickBooks, and an additional set of important Payroll features.

ConnectPay Home Profile Pay Statements Documents Joe Hourly

Date Search: Go

May 5, 2017 Jun 5, 2017
\$1,501.50 \$1,501.50

BLUE COMPANY PDF Download

Pay Date Net Pay
Jun 5, 2017 **\$1,501.50**

Pay Period: May 1, 2017 - Jun 1, 2017

You are employee of the quarter!

Earnings	This Period	Year to Date
1099M	\$1,525.00	\$15,250.00
Earnings Total	\$1,525.00	\$15,250.00

Deductions	This Period	Year to Date
Loans		
LOAN1	\$23.50	\$235.00
Deductions Total	\$0.00	\$0.00
Net Pay	\$1,501.50	\$3,003.00

Deposits \$100.00 to checking ending in *****3456

PAY STATEMENTS

Date Search: Go

May 5, 2017 Jun 5, 2017
\$1,501.50 \$1,501.50

BLUE COMPANY PDF Download

Pay Date Net Pay
Jun 5, 2017 **\$1,501.50**

Pay Period: May 1, 2017 - Jun 1, 2017

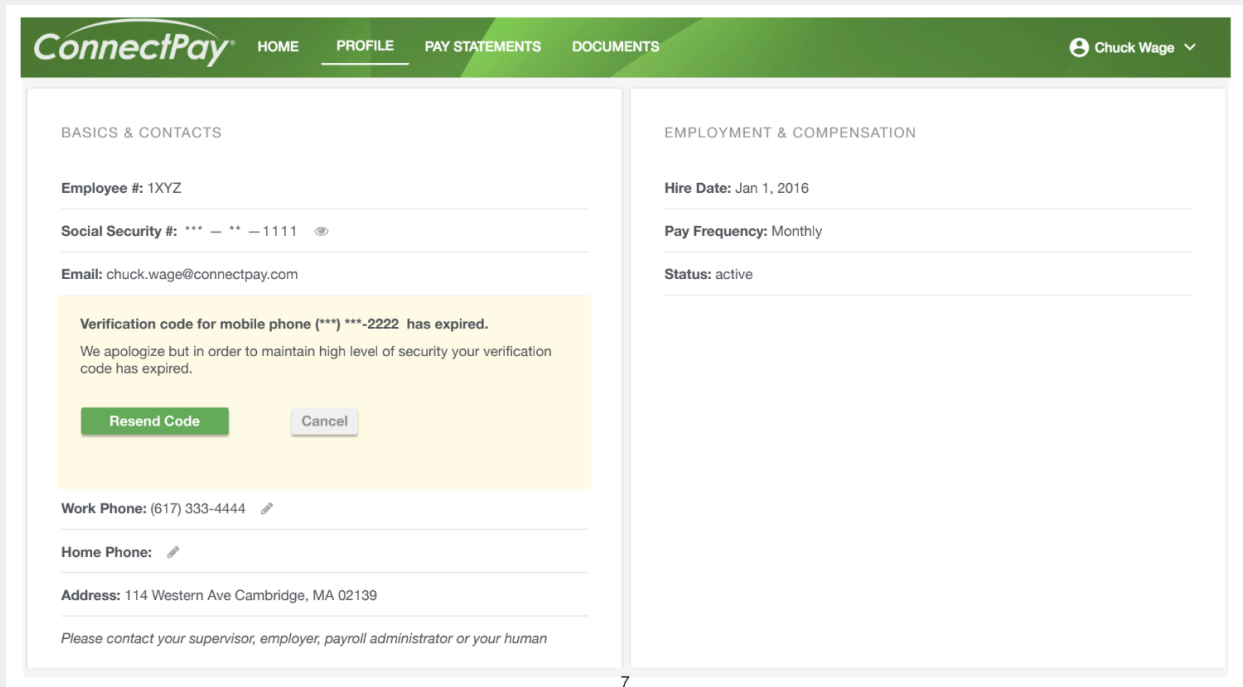
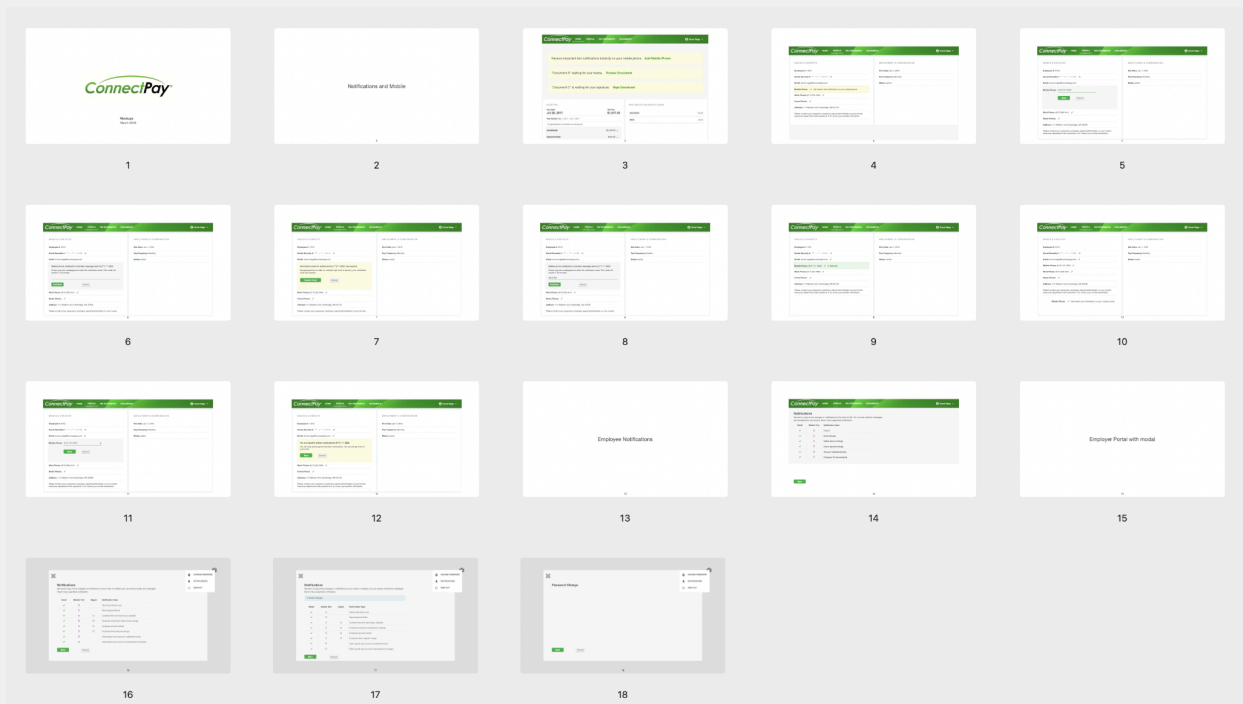
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Earnings	This Period	Year to Date
1099M	\$1,525.00	\$15,250.00
Earnings Total	\$1,525.00	\$15,250.00

Deductions	This Period	Year to Date
Loans		
LOAN1	\$23.50	\$235.00
Deductions Total	\$0.00	\$0.00
Net Pay	\$1,501.50	\$3,003.00

Deposits \$100.00 to checking ending in *****3456

Mobile Notifications



We rapidly prototyped various solutions based on requirements, GL industry standards, and ConnectPay suite user research.

- Need to be able to create, save, and export files
- Spreadsheet drag and drop interface with account and field mapping

- All the UI had to fit the Employee Portal that was already in place

Menu
User Icon

General Ledger Totals Desktop

[Back to Configurations](#)
Download

Configuration Delete Edit

Name: General Ledger Totals Desktop **File:** Quickbooks Desktop (.iif) **Type:** Totals **Report Period:** Jan 1 2019 - Nov 1 2019

Preview Edit Table

Date	Doc Type	Tax #	Trns Type	Memo	GL Account	Debit / Credit	Amount
10/30/2019	Check	1120	General Journal	Worker's Compensation	EEGRS 300	DEBIT	\$4300
10/30/2019	Check	1438	General Journal	FUTA Payment	TAXES 400	DEBIT	\$2104
09/29/2019	Check	333	General Journal		REG 200	DEBIT	\$3872
09/29/2019	Deposit	2540	General Journal	Monthly vehicle repair	REG 300	DEBIT	\$1265

Users can reorder, show/hide, and rename columns.

Menu
User Icon

Report: General Ledger Totals Desktop Download

Export Type: Quickbooks Desktop

Preview Edit Table

Order	Show	Column Name
	<input checked="" type="checkbox"/>	Date
	<input checked="" type="checkbox"/>	Doc Type
	<input checked="" type="checkbox"/>	Tax No.
	<input checked="" type="checkbox"/>	Name
	<input type="checkbox"/>	Memo
	<input checked="" type="checkbox"/>	GL Account
	<input checked="" type="checkbox"/>	Debit / Credit
	<input checked="" type="checkbox"/>	Amount

Cancel Save

Payroll Summary Report
Run Date: 11/16/2019 Reference Number: 49

Payroll Frequency: Weekly
Tax Filing

Payroll Totals:

Earnings	Hours	Wages	Description	Client Responsibility	Debit
REG	49.76	1,383.81			
EMPINS	19.36	183.83			
OT	3.90	116.15			
			Client Deposit		1,629.79
Gross:		1,383.81			Payroll Debit Total: 1,009.05
					Debit Date: 11/20/2019

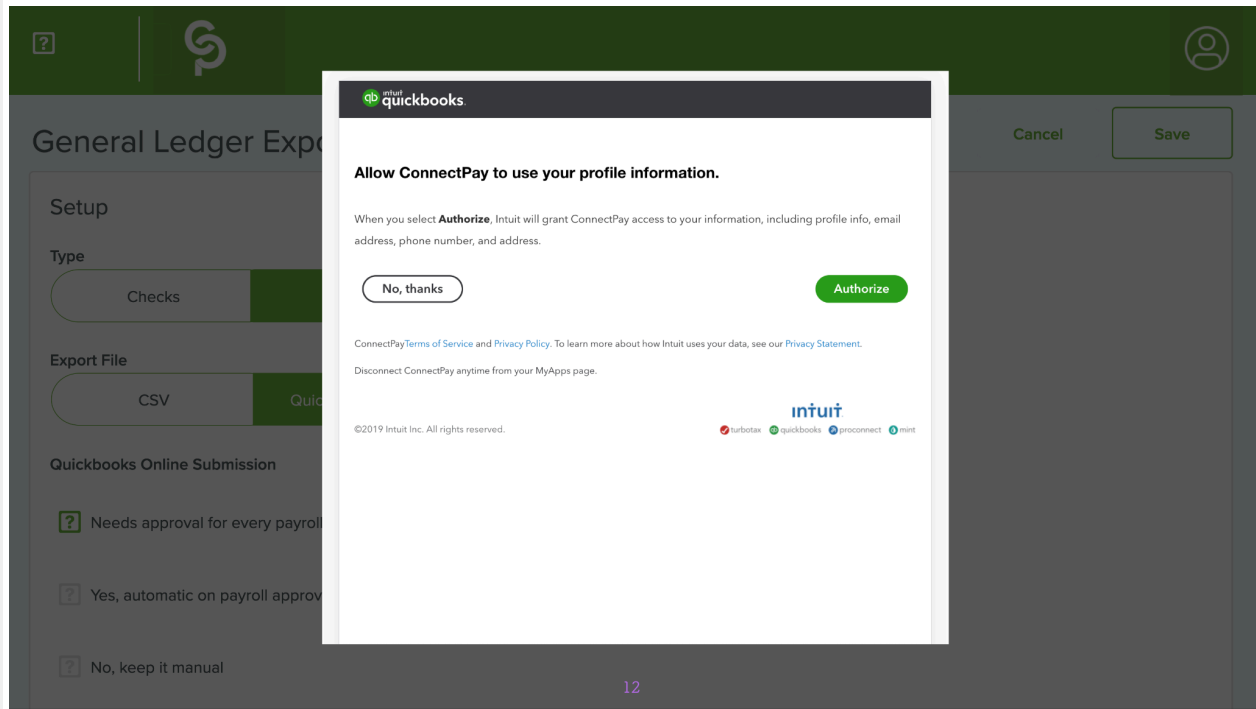
Tax Totals:

Name	Description	Current Taxable	Rate	Employer	Employees	Uncollected	Debit
FUTA	Federal Unemployment	1,383.81	0.20%		87.55		277.55
SEEC	Employee Social Security	1,383.81	6.20%		86.61		80.81
MEDICE	Employee Medicare	1,383.81	1.45%		86.60		18.96
MAINT	MA Withholding	1,383.81	0.20%		82.19		62.19
MAFICDE	Employee Medical Leave	1,383.81	0.248%		3.20		3.20
MAFICLE	Employee Family Leave	1,383.81	0.11%		1.69		1.69
ESBR	Employee Social Security	1,383.81	0.20%	80.81			80.81
ESICDE	Employee Medicare	1,383.81	0.45%	19.80			19.80
FUTA	Federal Unemployment	285.38	0.60%	1.71			1.71
MALJ	MA Unemployment	285.38	0.24%	23.67			23.67
WTF	Workforce Training Fund	285.38	0.056%	0.16			0.16
		426.14		294.44			Tax Debit Total: 419.81
							Debit Date: 11/20/2019

Billing Totals:

Description	Date of Charge	Quantity	Charge
Payroll Per Tax Agency Charge	11/22/2019	1	2.00
			Billing Debit Total: 2.00
			Debit Date: 11/20/2019

Total Debit Amount: 1,430.86
Total Cost of Payroll: 1,430.86
(Total Debit Amount Use Client Responsibility)



12

Account Mapping

Default Advanced To see more advanced detailed options switch to Advanced view.

NAME	LEVEL	
▼ Earnings	Company	
	GROSS	GRS 300 Debit
	NET PAY	RE REG 300 REG 301 REG 302 REG 302A REG 305B
	SALARY	
	VAC	Select Debit / Credit
	OFFSET	Select GL Account Select Debit / Credit

Earnings		Company				
GROSS	EEGRS 300	Debit				
NET PAY	PAY 300	Debit				
SALARY	REG 200	Debit				
VAC	Select GL Account	Select Debit / Credit				
OFFSET	REG300	Credit				
Deductions		Department	SALES	OPERATIONS	MAINTENANCE	DEPLOYMENT
		Production	Select Class	Select Class	Select Class	Select Class
DENTAL	Select GL Account	Select Debit / Credit	Compliance	Select GL Account	Select GL Account	Select GL Account
	Select GL Account	Select Debit / Credit	Overhead	Select Debit / Credit	Select Debit / Credit	Select Debit / Credit
HEALTH	Select GL Account	Select Debit / Credit	Production	Select GL Account	Select GL Account	Select GL Account
	Select GL Account	Select Debit / Credit	Remodel	Select Debit / Credit	Select Debit / Credit	Select Debit / Credit
401K	Select GL Account	Select GL Account	16	Select GL Account	Select GL Account	Select GL Account

- Copy and paste cells as you would in Excel.
- Deductions example with levels by Department.
- Associate a Department with a Class from a QBO list.

Menu User

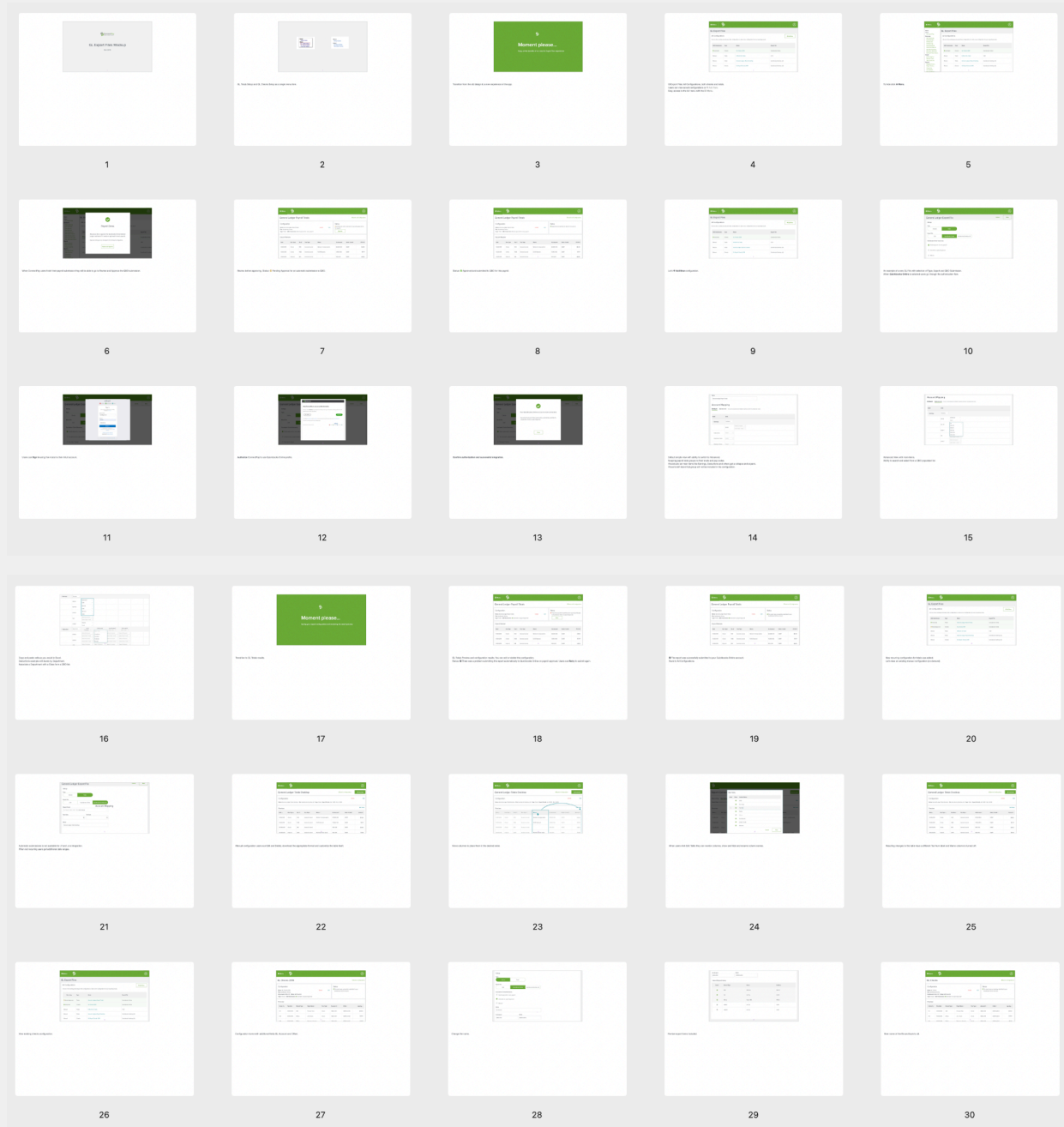
GL Export Files

All Configurations + Add New

Choose from existing saved export files configurations or add a new configuration for your reporting needs.

Recurring	Type	Name	Export File
Needs Approval	Totals	General Ledgers Payroll Totals	Quickbooks Online
Automatic	Checks	GL Checks 2019	Quickbooks Online
Manual	Totals	6 Month GL Totals	CSV
Manual	Totals	General Ledgers Payroll Desktop	Quickbooks Desktop (.iif)
Manual	Checks	GL Payroll Checks 2019	Quickbooks Desktop (.iif)

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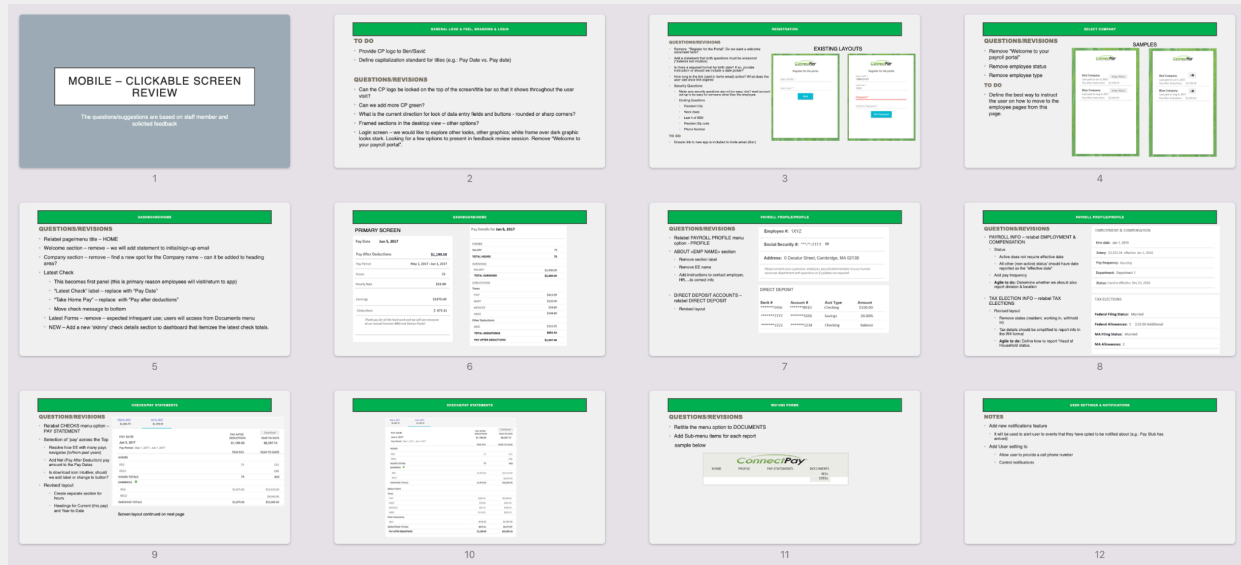


- GI Export Files: All Configurations, both checks and totals.
- Users can view saved configurations or + Add New.
- Easy access to the suite menu.

Developing and Testing

Using Angular Material UI Components and various libraries that we customized to fit our needs, we implemented the design ahead of schedule. Part of our dev process is

testing the app and seeing if we can get some early UX feedback. The top goal was to design and develop so that the UI, with data and tables, was responsive and mobile-friendly. This quality across many browsers and devices can only be achieved with extensive scenario, performance, and device testing as well as many quick iterations. Choosing the right stack makes all the difference.



Results

Because we chose the right tools, had good communication, realistic requirements, and goals aligned with user needs, we successfully designed and developed a responsive employee portal, GL Export, QuickBooks integrations, and text & email notification framework.

ConnectPay prides itself on being friendly and delivering highly custom solutions to its clients. We delivered an accessible, device-agnostic experience that meets their standards.