

IBM Social Program Management (SPM) V8.0.0

Deep Dive: Improving the Caseworker Experience of the SPM User Interface (UI)



Agenda

Introducing Carbon

New UI Features and Benefits

Technical Foundation

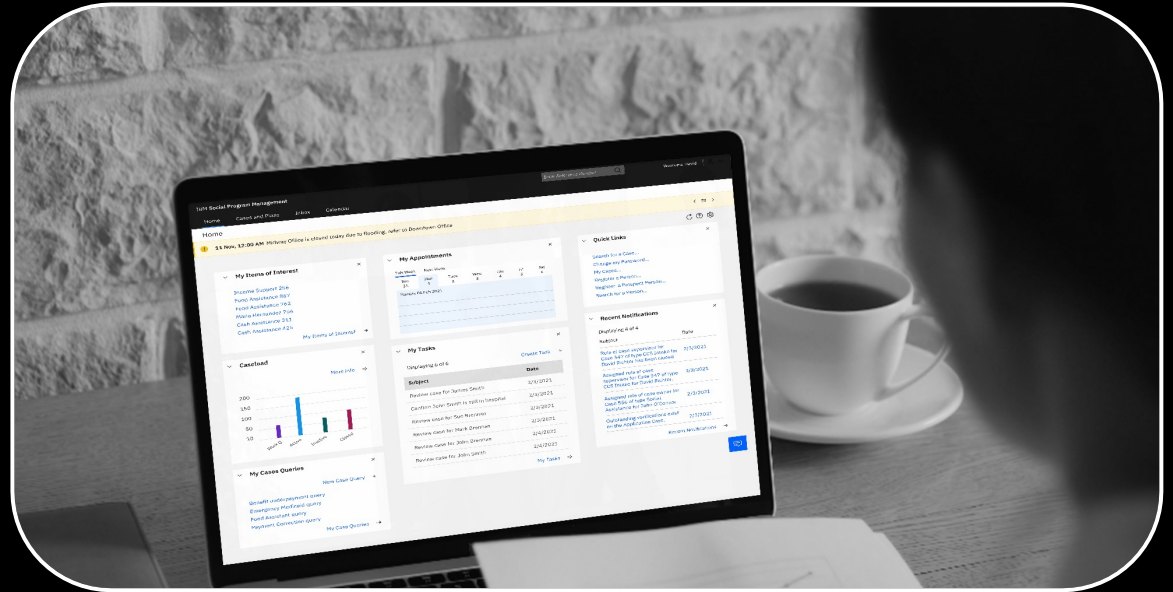
Upgradability

Where to Find More Information



V8.0.0 – New User Interface for Caseworkers

New V8.0.0 UI makes it easier for caseworkers to complete day-to-day tasks.



Introducing Carbon in SPM

What is Carbon?

Carbon is IBM's **open-source** design system for products and digital experiences.

Benefits of Using Carbon in SPM

- The new user interface provides the following features across the entire SPM application:
 - Improved layout that uses space effectively and increases interaction space
 - Improved styling, color, fonts, and icons
 - Responsive modals
- These system-wide improvements will help all caseworkers efficiently deliver benefits and services to citizens.

UIM Components Replaced by Carbon

Carbon Components in SPM:

- Modal dialogs
- Text input and text area components
- Dropdowns
- Date pickers
- Time pickers
- Date and time components
- Checkboxes
- Multi-selection checkboxes
- Modal buttons

Carbon Add-Ons Created with the Carbon System:

- Cluster
- Search popup

Carbon and SPM – Modern UI for Caseworkers

IBM Social Program Management

Home Cases and Plans Inbox Calendar

Enter Reference Number

Welcome David

Shortcuts

Maria Hernandez x

Maria Hernandez

300097861

- No Intake cases
- No investigation cases
- No Ongoing cases
- No Youth Services cases

1 801 564 8989 mhernandez@email.us

Home Evidence Background Care and Protection Issues and Proceedings Contact Medical Financial Referrals Administration

Home Add picture...

Home

Sensitivity 1 Special Interest None

Preferred Public Office Utah Dept of Workforce Services, Heber City, Utah, 84032 Registration Date 9/4/2020

Pending Applications

Reference	Type	Start Date
177	Cash Assistance	9/7/2020
185	Food Assistance	9/7/2020
192	Medically Needy Children	9/7/2020

Current Cases

Reference	Type	Start Date
551	Ongoing Case	10/2/2020
273	Income Support	9/7/2020
276	Cash Assistance	9/7/2020
277	Food Assistance	9/7/2020
278	Medical Assistance	9/7/2020
552	Payment Correction	9/7/2020

Smart Panel

New Icons

Blue is the Primary Action Color

Neutral Gray Theme

Easier-to-Read SPM Screens

IBM Social Program Management

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552	Payment Correction	9/7/2020

Smart Panel

Cluster

Labels and Values

Cluster Titles

UI Makes it Easier to Read and Complete Forms

The new labels-on-top of Input fields



More Space for Labels and Inputs



New Modal Layout



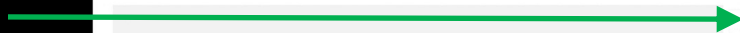
The screenshot shows a modal window titled "New Earned Income Evidence" with a close button (X) in the top right corner. Below the title are two steps: "1 Select Evidence" and "2 New Earned Income Evidence". The main heading is "New Earned Income Evidence" with a red asterisk and the text "*required field" to its right. A green box highlights the "Received Date*" field with the value "2/3/2021" and a calendar icon. Below this is the "Earned Income Details" section with an upward arrow. The "Type*" dropdown menu is set to "Wages and Salaries". Another green box highlights the "Amount*" field (value "120") and the "Frequency*" dropdown menu (value "Monthly"). Below these are the "Start Date*" field (value "1/29/2021") and the "End Date" field. At the bottom, there is a "Special Income" checkbox and a navigation bar with four buttons: "Cancel", "Back", "Save & New", and "Finish".

Faster Data Entry – Text Picker and Combo Box

Text Inputs



Combo Box



Register Person

1 Registered Person Check 2 Registration

Step 2: Registration

Reference Number

First Name *

Last Name *

Initials

Mother's Birth Last Name

Date of Birth *

Title

Middle Name

Suffix

Birth Last Name

Gender *

Date of Death

* required field

Cancel Back Save

Data Entry – Date Picker

Date Picker



Search Pop Up



Buttons



Register Person and Create Case

Mother's Birth Last Name

Gender Male

Date of Birth

Registration Date

Preferred Office

Preferred Language Apache

Street 1

City

State

Cancel Save

July 2021						
S	M	T	W	Th	F	S
27	28	29	30	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
1	2	3	4	5	6	7

Faster Data Entry – Checkboxes

Checkbox 

New Address

? ×

* required field

Type *

Rented × ▾

Primary

From *

06/01/2021 📅

To

M/d/yyyy 📅

Please enter either Apt/Suite or Street 1.

Apt/Suite

Street 1

Street 2

City

County

Cancel Save

Home Cases and Plans Inbox

Maria Hernandez X

Maria Hernandez



Maria Hernandez

Maria Herna
4365, 36 Tree Ro
Female
31 years

01 555 5555

Home Evidence Background Care and Pr

Communications

Notes

Attachments

Contacts

Interactions

Communication Excep...

Web Addresses

Addresses

Primary

> Yes

> No

New Address



* required field

Type *

Rented

 Primary

From *

05/27/2021



To

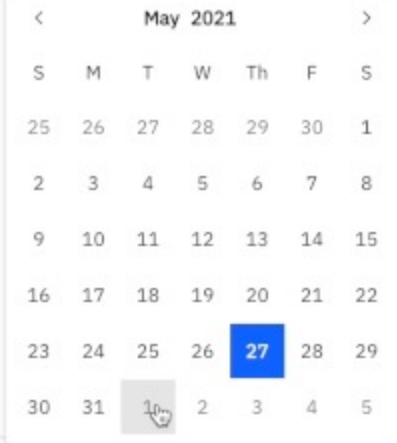
M/d/yyyy



Street 1

City

State



Comments

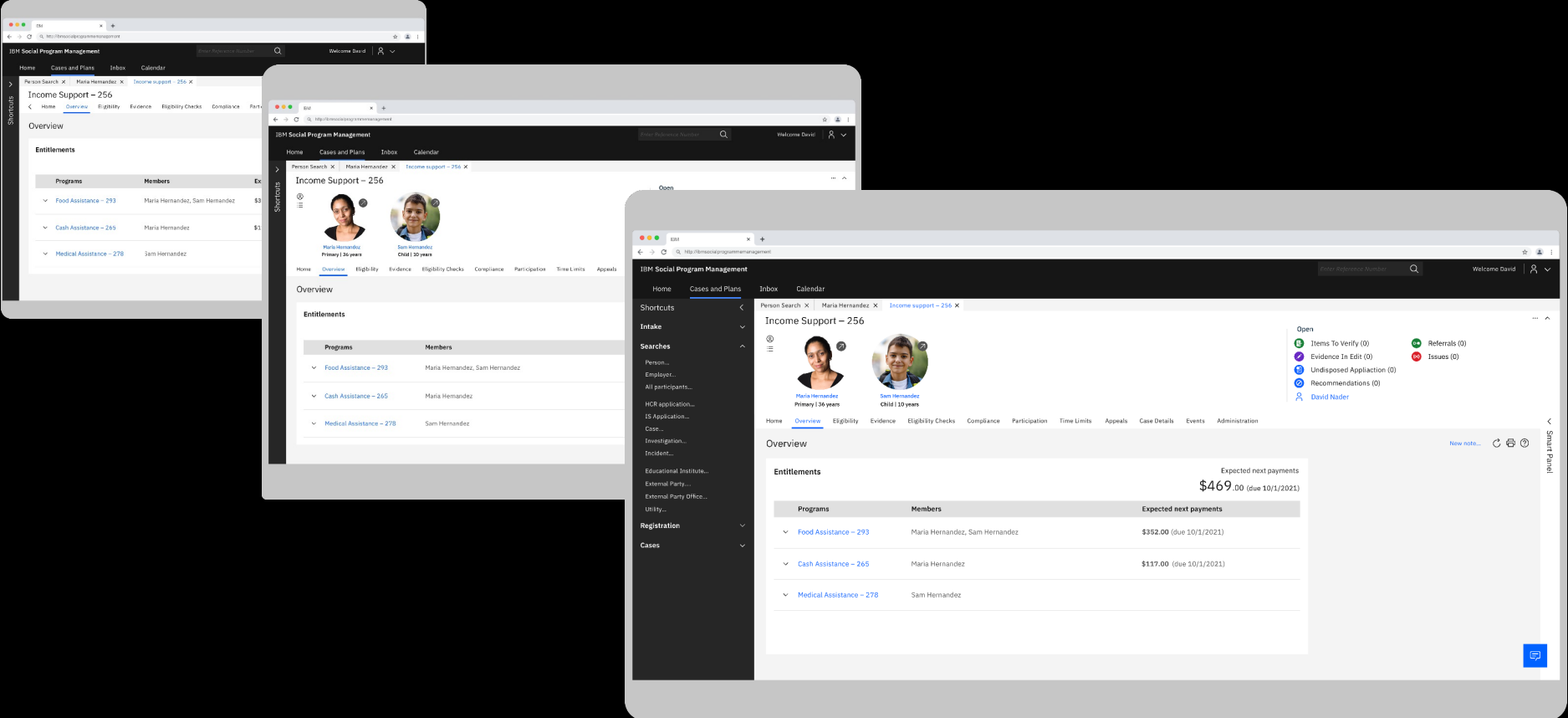
Cancel

Save

UI — Responsive Design Across Devices

Difficult to read

Cumbersome navigation



Solution

Technical Foundation



New UI

To modernize the SPM UI, the client infrastructure has been updated.

Styling

Font has been updated to IBM Plex.

Carbon color palette has been applied.

Iconography

Icons have been updated to SVG to provide sharper images in the UI.

Modals and Clusters

Clusters and Modals are now responsive to best fit the content within the available viewport.

Form Controls

Most common form controls used by caseworkers are updated to Carbon, for example, text input fields, dropdowns, and date and time.

Mapping UIM to Carbon

- No changes to how you develop UIM and application navigation artifacts.
- Developers do not need to configure or customize the Carbon components.
- The Carbon components are rendered by using domain plug-ins:



UIM declares a field that contains a domain type



The Domain type is mapped to a Java renderer



The Java renderer outputs the SPM UI component

UIM Fragment

```
<SERVER_INTERFACE NAME="DISPLAY"  
  CLASS=" AssessmentResultsFacade "  
  OPERATION="read"/>  
:  
:  
<FIELD>  
  <CONNECT>  
    <SOURCE NAME="DISPLAY"  
      PROPERTY="dtls$barChart"/>  
  </CONNECT>  
</FIELD>
```

UML Fragment

```
AssessmentResultsDtis  
name : ASSESSMENT_NAME  
factor1 : ASSESSMENT_FACTOR  
barChart : BAR_CHART  
  
AssessmentResultsFacade  
read() : AssessmentResultsDtis
```

Field Model

```
Source Path: "/data/si/DISPLAY/dtls$barChart"  
Domain: BAR_CHART  
Mandatory: false
```

Configuration file: *webclient/components/.../DomainsConfig.xml*

```
<domains  
  xmlns="http://www.curamsoftware.com/curam/util/common/domain-config">  
  
  <domain name="BAR_CHART">  
    <plug-in name="converter"  
      class="example.BarChartDataConverter"/>  
    <plug-in name="view-renderer"  
      class="example.BarChartRenderer"/>  
  </domain>  
  
</domains>
```

Assessment

Type Child Strengths and Needs
Last Assessed 3/3/2020 12:24 by Case Worker

Jon Beckett (2 years)
Amanda Beckett (1 year)
Adam Beckett (1 year)



Upgradability

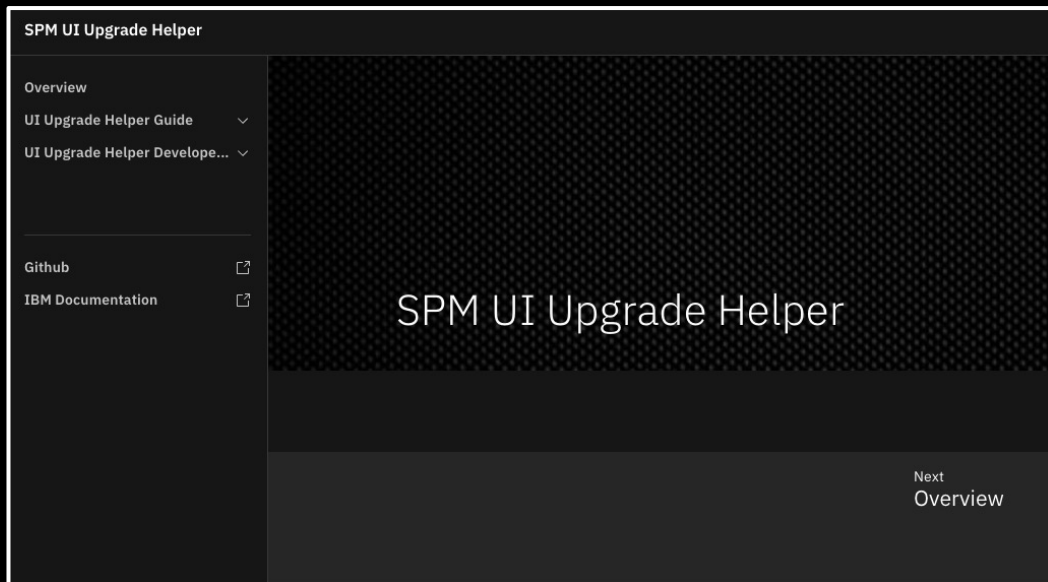
- The Carbon Design System is based on modern JavaScript.
- The Carbon UI requires changes to the underlying HTML structure and CSS in SPM.

The following customizations might be affected by the introduction of the Carbon UI:

- Custom CSS rules
- Custom JavaScript
- Custom CSS that uses icons from the SPM application
- Custom widgets that add HTML to the default application – low probability

UI Upgrade Helper Tool

- Reduces manual steps in the upgrade process
- Shipped in a Docker container
- Diff editor in the browser guides the developer, for example:
 - CSS selectors to delete or update
 - JS functions to manually review
- Fixes CSS impacts where possible



- The tool and documentation are available on GitHub:
<https://ibm.github.io/spm-ui-upgrade-helper/>

Where to Find More Information

- IBM Documentation
 - Refer to *What's new in IBM Cúram Social Program Management 8.0.0 - User Interface Improvements*
- Release Notes
 - Refer to *Improvements, Resolved Issues, Third Party Updates and Code Removals - Look and feel*
- For more information about Carbon
 - Refer to <https://www.carbondesignsystem.com>



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