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/**
 * @file Laurel.jsx
 * @author Joey Damico
 * @date September 25, 2019
 * @summary React JSX Component Class that is for Laurel Interlocking
 *
 * Extends the React Component Class and is the UI part of the Laurel
Interlocking,
 * this class controls all the drawings of routes, and also gives a
visual representation
 * of that status of the interlocking
 */

// Import React Component
import React, { Component } from 'react';
// Import CSS Style Sheet
import '../css/Main_Line/laurel.css';

// Import Images
// Switch Images
// Images for a 135 Crossover
import CX_135 from '../public/images/CX_135.png';
import CX_135_Lined_Top from '../public/images/
CX_135_Lined_Top.png';
import CX_135_Lined_Bottom from '../public/images/
CX_135_Lined_Bottom.png';
import CX_135_Lined_Both from '../public/images/
CX_135_Lined_Both.png';
import CX_135_R from '../public/images/CX_135_R.png';
import CX_135_R_Lined from '../public/images/
CX_135_R_Lined.png';
import CX_135_Lined_Top_Occupied_Bottom from '../public/
images/CX_135_Lined_Top_Occupied_Bottom.png';
import CX_135_Occupied_Top_Lined_Bottom from '../public/
images/CX_135_Occupied_Top_Lined_Bottom.png';
import CX_135_Occupied_Top from '../public/images/
CX_135_Occupied_Top.png';
import CX_135_Occupied_Bottom from '../public/images/
CX_135_Occupied_Bottom.png';
import CX_135_Occupied_Both from '../public/images/
CX_135_Occupied_Both.png';
import CX_135_R_Occupied from '../public/images/
CX_135_R_Occupied.png';

// Images for a 225 Crossover
import CX_225 from '../public/images/CX_225.png';
import CX_225_Lined_Top from '../public/images/
CX_225_Lined_Top.png';
import CX_225_Lined_Bottom from '../public/images/
CX_225_Lined_Bottom.png';

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import CX_225_Lined_Both from '../../../../../public/images/
CX_225_Lined_Both.png';
import CX_225_R from '../../../../../public/images/CX_225_R.png';
import CX_225_R_Lined from '../../../../../public/images/
CX_225_R_Lined.png';
import CX_225_Lined_Top_Occupied_Bottom from '../../../../../public/
images/CX_225_Lined_Top_Occupied_Bottom.png';
import CX_225_Occupied_Top_Lined_Bottom from '../../../../../public/
images/CX_225_Occupied_Top_Lined_Bottom.png';
import CX_225_Occupied_Top from '../../../../../public/images/
CX_225_Occupied_Top.png';
import CX_225_Occupied_Bottom from '../../../../../public/images/
CX_225_Occupied_Bottom.png';
import CX_225_Occupied_Both from '../../../../../public/images/
CX_225_Occupied_Both.png';
import CX_225_R_Occupied from '../../../../../public/images/
CX_225_R_Occupied.png';

// Signal Images
import SIG_W from '../../../../../public/images/SIG_W.png';
import SIG_W_Clear from '../../../../../public/images/SIG_W_Clear.png';
import SIG_W_Stop from '../../../../../public/images/SIG_W_Stop.png';
import SIG_E from '../../../../../public/images/SIG_E.png';
import SIG_E_Clear from '../../../../../public/images/SIG_E_Clear.png';
import SIG_E_Stop from '../../../../../public/images/SIG_E_Stop.png';

// Color Constants For Drawing Routes
const Empty = '#999999';
const Green = '#75fa4c';
const Red = '#eb3323';

/**
 * The React JSX Component Class for the Laurel Interlocking
 *
 * This class is a JSX React Component for the Laurel Interlocking,
this will control all the UI for the comonent,
 * and the click events that will pass reference between the backend
and the user. This also controls drawing the
 * route drawings to show if a route(s) is setup in the interlocking
or if the route is occupied
 */
class Laurel extends Component {
  /**
   * State
   * @summary Object that holds the state or status information for
the component
   *
   * This object holds all the information for the interlocking that
is required to display the routes

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    * correctly
    *
    * Anything that has "this.props." is passed down from the CTC
interlocking class
    */
    state = {
        // Switch Status
        sw_1: this.props.status.sw_1,
        sw_3: this.props.status.sw_3,
        sw_7: this.props.status.sw_7,
        sw_9: this.props.status.sw_9,
        sw_11: this.props.status.sw_11,
        sw_13: this.props.status.sw_13,
        // Image File for the switch - Will change depending on route
        sw_1_src: CX_135,
        sw_3_src: CX_135,
        sw_7_src: CX_225,
        sw_11_src: CX_225,
        sw_13_src: CX_135,
        // Image File for the signals - Will change depending on route
        sig_2w_src: SIG_W,
        sig_4w_src: SIG_W,
        sig_8w_src: SIG_W,
        sig_10w_src: SIG_W,
        sig_4e_src: SIG_E,
        sig_6e_src: SIG_E,
        sig_8e_src: SIG_E,
        sig_12e_src: SIG_E,
        // Colors for tail tracks - Will change depending on route
        tail_3_e: Empty,
        tail_1_e: Empty,
        tail_2_e: Empty,
        tail_4_e: Empty,
        tail_3_center: Empty,
        tail_3_w: Empty,
        tail_1_w: Empty,
        tail_2_w: Empty,
        tail_4_w: Empty,
        // Information For Interlocking Routes
        routes: this.props.status.routes,
        routed_1: this.props.status.routed_1,
        routed_2: this.props.status.routed_2,
        routed_3: this.props.status.routed_3,
        routed_4: this.props.status.routed_4,
        occupied_1: this.props.status.occupied_1,
        occupied_2: this.props.status.occupied_2,
        occupied_3: this.props.status.occupied_3,
        occupied_4: this.props.status.occupied_4,
    };

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/**
 * componentWillReceiveProps()
 * @summary Function that updates the state of the component
 *
 * The data that is being changed is passed down from the CTC
classes in the simulation backend
 *
 * @param nextProps, the new data to set the component state too
 */
componentWillReceiveProps(nextProps){
  this.setState({
    sw_1: nextProps.status.sw_1,
    sw_3: nextProps.status.sw_3,
    sw_7: nextProps.status.sw_7,
    sw_11: nextProps.status.sw_11,
    sw_13: nextProps.status.sw_13,

    routed_1: nextProps.status.routed_1,
    routed_2: nextProps.status.routed_2,
    routed_3: nextProps.status.routed_3,
    routed_4: nextProps.status.routed_4,
    occupied_1: nextProps.status.occupied_1,
    occupied_2: nextProps.status.occupied_2,
    occupied_3: nextProps.status.occupied_3,
    occupied_4: nextProps.status.occupied_4,
    routes: nextProps.status.routes
  });
}
// ---- END componentWillReceiveProps() ----

/**
 * render()
 * @summary standard React function that draws the interlocking to
the screen
 */
render() {
  // Clear all the drawings from the interlocking so if a train
clears the route is gone
  this.reset_drawings();
  // Set the switch images based off the state of each crossover
  this.set_switch_img();
  // Draw all the current routes in the interlocking
  this.set_route_drawings();

  // Returns the HTML to draw the interlocking and it's current
state to the screen
  return (
    <div>
      {/* Tags */}

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        <div className="laurel_title">LAUREL</div>
        <div className="laurel_milepost">MP 4.3</div>

        {/* West Side Tail Tracks */}
        <div className="b_laurel_3_west" style={{background:
this.state.tail_3_w}}></div>
        <div className="b_laurel_2_west" style={{background:
this.state.tail_1_w}}></div>
        <div className="m_laurel_2_west" style={{background:
this.state.tail_2_w}}></div>
        <div className="m_laurel_4_west" style={{background:
this.state.tail_4_w}}></div>

        {/* Switches */}
        <div className="laurel_SW_1"
onClick={this.props.throw_sw_1}><img src={this.state.sw_1_src}/></div>
        <div className="laurel_SW_3"
onClick={this.props.throw_sw_3}><img src={this.state.sw_3_src}/></div>
        <div className="laurel_SW_7"
onClick={this.props.throw_sw_7}><img src={this.state.sw_7_src}/></div>
        <div className="laurel_SW_11"
onClick={this.props.throw_sw_11}><img src={this.state.sw_11_src}/></
div>
        <div className="laurel_SW_13"
onClick={this.props.throw_sw_13}><img src={this.state.sw_13_src}/></
div>

        {/* Center Tail Tracks */}
        <div className="m_laurel_3_center" style={{background:
this.state.tail_3_center}}></div>

        {/* East Side Tail Tracks */}
        <div className="m_laurel_3_east" style={{background:
this.state.tail_3_e}}></div>
        <div className="m_laurel_1_east" style={{background:
this.state.tail_1_e}}></div>
        <div className="m_laurel_2_east" style={{background:
this.state.tail_2_e}}></div>
        <div className="m_laurel_4_east" style={{background:
this.state.tail_4_e}}></div>

        {/* Signals */}
        {/* West Signals */}
        <div className="laurel_sig_10w"
onClick={this.props.click_sig_10w}><img src={this.state.sig_10w_src}/
></div>
        <div className="laurel_sig_2w"
onClick={this.props.click_sig_2w}><img src={this.state.sig_2w_src}/></
div>

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        <div className="laurel_sig_4w"
onClick={this.props.click_sig_4w}><img src={this.state.sig_4w_src}/></div>

        <div className="laurel_sig_8w"
onClick={this.props.click_sig_8w}><img src={this.state.sig_8w_src}/></div>

        { /* East Signals */ }
        <div className="laurel_sig_4e"
onClick={this.props.click_sig_4e}><img src={this.state.sig_4e_src}/></div>

        <div className="laurel_sig_6e"
onClick={this.props.click_sig_6e}><img src={this.state.sig_6e_src}/></div>

        <div className="laurel_sig_8e"
onClick={this.props.click_sig_8e}><img src={this.state.sig_8e_src}/></div>

        <div className="laurel_sig_12e"
onClick={this.props.click_sig_12e}><img src={this.state.sig_12e_src}/></div>
    </div>
    );
}
// ---- END render() ----

/**
 * set_route_drawings()
 * @summary Sets the drawing for the route through the
interlocking
 *
 * Function takes what routes are currently set in the
Interlocking class and displays that route in the UI, the drawing
 * will change depending on if the interlocking is occupied or
not.
 *
 * There are a lot of possible drawings for this interlocking,
which is why the function is so long, I'm not sure if there
 * is a quicker or faster way to accomplish what this function
does
 */
set_route_drawings() {
    let color_1 = Empty;
    let color_2 = Empty;
    let color_3 = Empty;
    let color_4 = Empty;

    // Set Track Colors
    // If each track has a route
    if (this.state.routed_1) {
        color_1 = Green;
    }
}

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    if (this.state.routed_2) {
        color_2 = Green;
    }
    if (this.state.routed_3) {
        color_3 = Green;
    }
    if (this.state.routed_4) {
        color_4 = Green;
    }
    // If each track is occupied
    if (this.state.occupied_1) {
        color_1 = Red;
    }
    if (this.state.occupied_2) {
        color_2 = Red;
    }
    if (this.state.occupied_3) {
        color_3 = Red;
    }
    if (this.state.occupied_4) {
        color_4 = Red;
    }

    // Loop Through All The Routes
    for (let i = 0; i < this.state.routes.length; i++) {
        if (this.state.routes[i] === "W_1_1__|__2_hx_laurel" ||
this.state.routes[i] === "E_1_1__|__1_laurel_westEnd") {
            // Setting Tail Track Color
            this.state.tail_1_e = color_1;
            this.state.tail_1_w = color_1;

            if (this.state.occupied_1) {
                // Switches
                // Crossovers that could change based off of Track
#2
                if (this.state.routes.includes("W_2_2__|
__2_westSecaucus_laurel") || this.state.routes.includes("E_2_2__|
__2_laurel_westEnd")) {
                    // Track 2 Routed
                    if (this.state.routed_2) {
                        this.state.sw_1_src =
CX_135_Occupied_Top_Lined_Bottom;
                        this.state.sw_7_src =
CX_225_Occupied_Top_Lined_Bottom;
                    }
                    // Track 2 Occupied
                    else if (this.state.occupied_2) {
                        this.state.sw_1_src =
CX_135_Occupied_Both;
                        this.state.sw_7_src =

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CX_225_Occupied_Both;
    }
}
// Nothing On Track 2
else {
    this.state.sw_1_src = CX_135_Occupied_Top;
    this.state.sw_7_src = CX_225_Occupied_Top;
}
// Crossovers that could changed based off of
Track #3
    if (this.state.routes.includes("W_3_3__|
__3_hx_laurel") || this.state.routes.includes("E_3_3__|
__3_laurel_westEnd")) {
        // Track 3 Routed
        if (this.state.routed_3) {
            this.state.sw_3_src =
CX_135_Lined_Top_Occupied_Bottom;
            this.state.sw_11_src =
CX_225_Lined_Top_Occupied_Bottom;
        }
        // Track 3 Occupied
        else if (this.state.occupied_3) {
            this.state.sw_3_src =
CX_135_Occupied_Both;
            this.state.sw_11_src =
CX_225_Occupied_Both;
        }
    }
// Nothing on Track 3
else {
    this.state.sw_3_src = CX_135_Occupied_Bottom;
    this.state.sw_11_src = CX_225_Occupied_Bottom;
}

// Signals
this.state.sig_2w_src = SIG_W_Stop;
this.state.sig_12e_src = SIG_E_Stop;
}
else {
    // Switches
    // Crossovers that could change based off of Track
#2
    if (this.state.routes.includes("W_2_2__|
__2_westSecaucus_laurel") || this.state.routes.includes("E_2_2__|
__2_laurel_westEnd") || this.state.routes.includes("E_2_4__|
__4_laurel_westEnd")) {
        // Track 2 Routed
        if (this.state.routed_2) {
            this.state.sw_1_src = CX_135_Lined_Both;
            this.state.sw_7_src = CX_225_Lined_Both;

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    }
    // Track 2 Occupied
    else if (this.state.occupied_2) {
        this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
        this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
    }
}
else if (this.state.routes.includes("W_4_2__|
__2_westSecaucus_laurel")) {
    // Track 2 Routed
    if (this.state.routed_4) {
        this.state.sw_1_src = CX_135_Lined_Both;
        this.state.sw_7_src = CX_225_Lined_Both;
    }
    // Track 2 Occupied
    else if (this.state.occupied_4) {
        this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
        this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
    }
}
// Nothing On Track 2
else {
    this.state.sw_1_src = CX_135_Lined_Top;
    this.state.sw_7_src = CX_225_Lined_Top;
}
// Crossovers that could changed based off of
Track #3
    if (this.state.routes.includes("W_3_3__|
__3_hx_laurel") || this.state.routes.includes("E_3_3__|
__3_laurel_westEnd")) {
        // Track 3 Routed
        if (this.state.routed_3) {
            this.state.sw_3_src = CX_135_Lined_Both;
            this.state.sw_11_src = CX_225_Lined_Both;
        }
        // Track 3 Occupied
        else if (this.state.occupied_3) {
            this.state.sw_3_src =
CX_135_Occupied_Top_Lined_Bottom;
            this.state.sw_11_src =
CX_225_Occupied_Top_Lined_Bottom;
        }
    }
    // Nothing on Track 3
    else {
        this.state.sw_3_src = CX_135_Lined_Bottom;
    }
}

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        this.state.sw_11_src = CX_225_Lined_Bottom;
    }

    // Signals
    // West Bound Signals
    if (this.state.routes[i] === "W_1_1__|
__2_hx_laurel") {
        this.state.sig_2w_src = SIG_W_Clear;
        this.state.sig_12e_src = SIG_E_Stop;
    }
    // East Bound Signals
    else {
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_12e_src = SIG_E_Clear;
    }
}
}
else if (this.state.routes[i] === "W_3_3__|__3_hx_laurel"
|| this.state.routes[i] === "E_3_3__|__3_laurel_westEnd") {
    // Set Tail Track Colors
    this.state.tail_3_e = color_3;
    this.state.tail_3_center = color_3;
    this.state.tail_3_w = color_3;

    // If The Route Is Occupied
    if (this.state.occupied_3) {
        // Switches
        this.state.sw_11_src = CX_225_Occupied_Top;

        // Crossovers that could change based of the
status of other Track #1
        if (this.state.routes.includes("W_4_1__|
__2_hx_laurel")) {
            // Track #1 Is Occupied
            if (this.state.occupied_4) {
                this.state.sw_3_src =
CX_135_Occupied_Both;
            }
            // Track #1 Is Routed
            else if (this.state.routed_4) {
                this.state.sw_3_src =
CX_135_Occupied_Top_Lined_Bottom;
            }
        }
        else if (this.state.routes.includes("E_1_4__|
__4_laurel_westEnd")) {
            // Track #1 Is Occupied
            if (this.state.occupied_1) {
                this.state.sw_3_src =
CX_135_Occupied_Both;

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    }
    // Track #1 Is Routed
    else if (this.state.routed_1) {
        this.state.sw_3_src =
CX_135_Occupied_Top_Lined_Bottom;
    }
}
else {
    this.state.sw_3_src = CX_135_Occupied_Top;
}

// Signals
this.state.sig_10w_src = SIG_W_Stop;
this.state.sig_6e_src = SIG_E_Stop;
}
// The Route Is NOT Occupied
else {
    // Switches
    this.state.sw_11_src = CX_225_Lined_Top;

    // Crossovers that could change based of the
status of other Track #1
    if (this.state.routes.includes("W_4_1__|
__2_hx_laurel")) {
        // Track #1 Is Occupied
        if (this.state.occupied_4) {
            this.state.sw_3_src =
CX_135_Occupied_Top_Lined_Bottom;
        }
        // Track #1 Is Routed
        else if (this.state.routed_4) {
            this.state.sw_3_src = CX_135_Lined_Both;
        }
    }
    else if (this.state.routes.includes("E_1_4__|
__4_laurel_westEnd")) {
        // Track #1 Is Occupied
        if (this.state.occupied_1) {
            this.state.sw_3_src =
CX_135_Occupied_Top_Lined_Bottom;
        }
        // Track #1 Is Routed
        else if (this.state.routed_1) {
            this.state.sw_3_src = CX_135_Lined_Both;
        }
    }
    else {
        this.state.sw_3_src = CX_135_Lined_Top;
    }
}

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        // Signals
        // West Bound Signals
        if (this.state.routes[i] === "W_3_3__|
__3_hx_laurel") {
            this.state.sig_10w_src = SIG_W_Clear;
            this.state.sig_6e_src = SIG_E_Stop;
        }
        // East Bound Signals
        else {
            this.state.sig_10w_src = SIG_W_Stop;
            this.state.sig_6e_src = SIG_E_Clear;
        }
    }
    }
    else if (this.state.routes[i] === "W_2_2__|
__2_westSecaucus_laurel" || this.state.routes[i] === "E_2_2__|
__2_laurel_westEnd") {
        // Set Tail Track Color
        this.state.tail_2_e = color_2;
        this.state.tail_2_w = color_2;

        // If The Route Is Occupied
        if (this.state.occupied_2) {
            // Switches
            // Crossovers that could change based off of Tack
#1
            if (this.state.routes.includes("W_1_1__|
__2_westSecaucus_laurel") || this.state.routes.includes("E_1_1__|
__1_laurel_westEnd")) {
                // Track 1 Routed
                if (this.state.routed_1) {
                    this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
                    this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
                }
                // Track 1 Occupied
                else if (this.state.occupied_1) {
                    this.state.sw_1_src =
CX_135_Occupied_Both;
                    this.state.sw_7_src =
CX_225_Occupied_Both;
                }
            }
        }
        else if (this.state.routes.includes("W_3_1__|
__1_hx_laurel")) {
            if (this.state.routed_3) {
                this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
                this.state.sw_7_src =

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CX_225_Lined_Top_Occupied_Bottom;
    }
    else if (this.state.occupied_3) {
        this.state.sw_1_src =
CX_135_Occupied_Both;
        this.state.sw_7_src =
CX_225_Occupied_Both;
    }
    }
    else if (this.state.routes.includes("E_1_3__|
__3_laurel_westEnd")) {
        if (this.state.routed_1) {
            this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
            this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
        }
        else if (this.state.occupied_1) {
            this.state.sw_1_src =
CX_135_Occupied_Both;
            this.state.sw_7_src =
CX_225_Occupied_Both;
        }
    }
    else if (this.state.routes.includes("W_1_3__|
__3_hx_laurel")) {
        if (this.state.routed_1) {
            this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
            this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
        }
        else if (this.state.occupied_1) {
            this.state.sw_1_src =
CX_135_Occupied_Both;
            this.state.sw_7_src =
CX_225_Occupied_Both;
        }
    }
    else if (this.state.routes.includes("E_3_1__|
__1_laurel_westEnd")) {
        if (this.state.routed_3) {
            this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
            this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
        }
        else if (this.state.occupied_3) {
            this.state.sw_1_src =
CX_135_Occupied_Both;

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        this.state.sw_7_src =
CX_225_Occupied_Both;
    }
}
// Nothing Track 1
else {
    this.state.sw_1_src = CX_135_Occupied_Bottom;
    this.state.sw_7_src = CX_225_Occupied_Bottom;
}
// Crossovers that could change based off of Track
#4
    if (this.state.routes.includes("W_4_4__|
__4_westSecaucus_laurel") || this.state.routes.includes("E_4_4__|
__4_laurel_westEnd")) {
        // Track 4 Routed
        if (this.state.routed_4) {
            this.state.sw_13_src =
CX_135_Occupied_Top_Lined_Bottom;
        }
        // Track 4 Occupied
        else if (this.state.occupied_4) {
            this.state.sw_13_src =
CX_135_Occupied_Both;
        }
    }
    // Nothing on Track 3
    else {
        this.state.sw_13_src = CX_135_Occupied_Top;
    }

    // Signals
    this.state.sig_4w_src = SIG_W_Stop;
    this.state.sig_4e_src = SIG_E_Stop;
}
else {
    // Switches
    // Crossovers that could change based off of Tack
#1
    if (this.state.routes.includes("W_1_1__|
__2_westSecaucus_laurel") || this.state.routes.includes("E_1_1__|
__1_laurel_westEnd")) {
        // Track 1 Routed
        if (this.state.routed_1) {
            this.state.sw_1_src = CX_135_Lined_Both;
            this.state.sw_7_src = CX_225_Lined_Both;
        }
        // Track 1 Occupied
        else if (this.state.occupied_1) {
            this.state.sw_1_src =
CX_135_Occupied_Top_Lined_Bottom;

```

```

        this.state.sw_7_src =
CX_225_Occupied_Top_Lined_Bottom;
    }
}
else if (this.state.routes.includes("W_3_1__|
__1_hx_laurel")) {
    if (this.state.routed_3) {
        this.state.sw_1_src = CX_135_Lined_Both;
        this.state.sw_7_src = CX_225_Lined_Both;
    }
    else if (this.state.occupied_3) {
        this.state.sw_1_src =
CX_135_Occupied_Top_Lined_Bottom;
        this.state.sw_7_src =
CX_225_Occupied_Top_Lined_Bottom;
    }
}
else if (this.state.routes.includes("E_1_3__|
__3_laurel_westEnd")) {
    if (this.state.routed_1) {
        this.state.sw_1_src = CX_135_Lined_Both;
        this.state.sw_7_src = CX_225_Lined_Both;
    }
    else if (this.state.occupied_1) {
        this.state.sw_1_src =
CX_135_Occupied_Top_Lined_Bottom;
        this.state.sw_7_src =
CX_225_Occupied_Top_Lined_Bottom;
    }
}
else if (this.state.routes.includes("W_1_3__|
__3_hx_laurel")) {
    if (this.state.routed_1) {
        this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
        this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
    }
    else if (this.state.occupied_1) {
        this.state.sw_1_src =
CX_135_Occupied_Both;
        this.state.sw_7_src =
CX_225_Occupied_Both;
    }
}
else if (this.state.routes.includes("E_3_1__|
__1_laurel_westEnd")) {
    if (this.state.routed_1) {
        this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;

```

```

        this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
    }
    else if (this.state.occupied_1) {
        this.state.sw_1_src =
CX_135_Occupied_Both;
        this.state.sw_7_src =
CX_225_Occupied_Both;
    }
}
// Nothing Track 1
else {
    this.state.sw_1_src = CX_135_Lined_Bottom;
    this.state.sw_7_src = CX_225_Lined_Bottom;
}
// Crossovers that could changed based off of
Track #4
    if (this.state.routes.includes("W_4_4__|
__4_westSecaucus_laurel") || this.state.routes.includes("E_4_4__|
__4_laurel_westEnd")) {
        // Track 4 Routed
        if (this.state.routed_4) {
            this.state.sw_13_src = CX_135_Lined_Both;
        }
        // Track 4 Occupied
        else if (this.state.occupied_4) {
            this.state.sw_13_src =
CX_135_Lined_Top_Occupied_Bottom;
        }
    }
    // Nothing on Track 3
    else {
        this.state.sw_13_src = CX_135_Lined_Top;
    }

    // Signals
    // West Bound Signals
    if (this.state.routes[i] === "W_2_2__|
__2_westSecaucus_laurel") {
        this.state.sig_4w_src = SIG_W_Clear;
        this.state.sig_4e_src = SIG_E_Stop;
    }
    // East Bound Signals
    else {
        this.state.sig_4w_src = SIG_W_Stop;
        this.state.sig_4e_src = SIG_E_Clear;
    }
}
}
else if (this.state.routes[i] === "W_4_4__|

```



```

__4_westSecaucus_laurel" || this.state.routes[i] === "E_4_4__|
__4_laurel_westEnd") {
    // Set Tail Track Colors
    this.state.tail_4_e = color_4;
    this.state.tail_4_w = color_4;

    // If The Route Is Occupied
    if (this.state.occupied_4) {
        // Switches
        // Crossovers that could change based on the
status of Track #4
        if (this.state.routes.includes("E_3_2__|
__2_laurel_westEnd")) {
            // Track #4 Occupied
            if (this.state.occupied_3) {
                this.state.sw_13_src =
CX_135_Occupied_Both;
            }
            // Track #4 Routed
            else if (this.state.routed_3) {
                this.state.sw_13_src =
CX_135_Lined_Top_Occupied_Bottom;
            }
        }
        // Nothing Track #4
        else {
            this.state.sw_13_src = CX_135_Occupied_Bottom;
        }

        // Signals
        this.state.sig_8w_src = SIG_W_Stop;
        this.state.sig_8e_src = SIG_E_Stop;
    }
    // The Route is NOT Occupied
    else {
        // Switches
        // Crossovers that could change based on the
status of Track #4
        if (this.state.routes.includes("E_3_2__|
__2_laurel_westEnd")) {
            // Track #4 Occupied
            if (this.state.occupied_3) {
                this.state.sw_13_src =
CX_135_Occupied_Top_Lined_Bottom;
            }
            // Track #4 Routed
            else if (this.state.routed_3) {
                this.state.sw_13_src = CX_135_Lined_Both;
            }
        }
    }
}

```

```

        // Nothing Track #4
        else {
            this.state.sw_13_src = CX_135_Lined_Bottom;
        }

        // Signals
        // West Bound Signals
        if (this.state.routes[i] === "W_4_4__|
__4_westSecaucus_laurel") {
            this.state.sig_8w_src = SIG_W_Clear;
            this.state.sig_8e_src = SIG_E_Stop;
        }
        // East Bound Signals
        else {
            this.state.sig_8w_src = SIG_W_Stop;
            this.state.sig_8e_src = SIG_E_Clear;
        }
    }
}
else if (this.state.routes[i] === "W_3_1__|__1_hx_laurel")
{
    // Set Tail Track Colors
    this.state.tail_3_e = color_3;
    this.state.tail_1_w = color_3;

    // The Route Is Occupied
    if (this.state.occupied_3) {
        // Switches
        this.state.sw_3_src = CX_135_Occupied_Bottom;
        this.state.sw_11_src = CX_225_R_Occupied;

        if (this.state.routes.includes("W_4_2__|
__2_westSecaucus_laurel")) {
            if (this.state.occupied_4) {
                this.state.sw_1_src =
CX_135_Occupied_Bottom;
                this.state.sw_7_src =
CX_225_Occupied_Bottom;
            }
            else if (this.state.routed_4) {
                this.state.sw_1_src =
CX_135_Occupied_Top_Lined_Bottom;
                this.state.sw_7_src =
CX_225_Occupied_Top_Lined_Bottom;
            }
        }
        else {
            this.state.sw_1_src = CX_135_Occupied_Top;
            this.state.sw_7_src = CX_225_Occupied_Top;
        }
    }
}

```

```

        // Signals
        this.state.sig_10w_src = SIG_W_Stop;
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_6e_src = SIG_E_Stop;
        this.state.sig_12e_src = SIG_E_Stop;
    }
    // The Route Is NOT Occupied
    else {
        // Switches
        this.state.sw_3_src = CX_135_Lined_Bottom;
        this.state.sw_11_src = CX_225_R_Lined;

        // Crossovers that could change based on other
tracks
        if (this.state.routes.includes("W_4_2__|
__2_westSecaucus_laurel")) {
            // Other track is Occupied
            if (this.state.occupied_4) {
                this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
                this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
            }
            // Other track is Routed
            else if (this.state.routed_4) {
                this.state.sw_1_src = CX_135_Lined_Both;
                this.state.sw_7_src = CX_225_Lined_Both;
            }
        }
        else if (this.state.routes.includes("E_2_4__|
__4_laurel_westEnd")) {
            // Other track is Occupied
            if (this.state.occupied_2) {
                this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
                this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
            }
            // Other track is Routed
            else if (this.state.routed_2) {
                this.state.sw_1_src = CX_135_Lined_Both;
                this.state.sw_7_src = CX_225_Lined_Both;
            }
        }
        else {
            this.state.sw_1_src = CX_135_Lined_Top;
            this.state.sw_7_src = CX_225_Lined_Top;
        }
    }

```

```

        // Signals
        this.state.sig_10w_src = SIG_W_Clear;
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_6e_src = SIG_E_Stop;
        this.state.sig_12e_src = SIG_E_Stop;
    }
}
else if (this.state.routes[i] === "E_1_3__|
__3_laurel_westEnd") {
    // Set Tail Track Colors
    this.state.tail_3_e = color_1;
    this.state.tail_1_w = color_1;

    // The Route Is Occupied
    if (this.state.occupied_1) {
        // Switches
        this.state.sw_3_src = CX_135_Occupied_Bottom;
        this.state.sw_11_src = CX_225_R_Occupied;
        this.state.sw_1_src = CX_135_Occupied_Top;
        this.state.sw_7_src = CX_225_Occupied_Top;

        // Signals
        this.state.sig_10w_src = SIG_W_Stop;
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_6e_src = SIG_E_Stop;
        this.state.sig_12e_src = SIG_E_Stop;
    }
    // The Route Is NOT Occupied
    else {
        // Switches
        this.state.sw_3_src = CX_135_Lined_Bottom;
        this.state.sw_11_src = CX_225_R_Lined;
        this.state.sw_1_src = CX_135_Lined_Top;
        this.state.sw_7_src = CX_225_Lined_Top;

        // Signals
        this.state.sig_10w_src = SIG_W_Stop;
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_6e_src = SIG_E_Stop;
        this.state.sig_12e_src = SIG_E_Clear;
    }
}
else if (this.state.routes[i] === "W_3_2__|
__2_westSecaucus_laurel") {
    // Set Tail Track Colors
    this.state.tail_3_e = color_3;
    this.state.tail_2_w = color_3;

    // The Route Is Occupied
    if (this.state.occupied_3) {

```

```

        // Switches
        this.state.sw_11_src = CX_225_R_Occupied;
        this.state.sw_7_src = CX_225_R_Occupied;
        this.state.sw_1_src = CX_135_Occupied_Bottom;

        // Signals
        this.state.sig_10w_src = SIG_W_Stop;
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_4w_src = SIG_W_Stop;
        this.state.sig_6e_src = SIG_E_Stop;
        this.state.sig_12e_src = SIG_E_Stop;
        this.state.sig_4e_src = SIG_E_Stop;
    }
    // The Route Is NOT Occupied
    else {
        // Switches
        this.state.sw_11_src = CX_225_R_Lined;
        this.state.sw_7_src = CX_225_R_Lined;
        this.state.sw_1_src = CX_135_Lined_Bottom;

        // Signals
        this.state.sig_10w_src = SIG_W_Clear;
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_4w_src = SIG_W_Stop;
        this.state.sig_6e_src = SIG_E_Stop;
        this.state.sig_12e_src = SIG_E_Stop;
        this.state.sig_4e_src = SIG_E_Stop;
    }
}
else if (this.state.routes[i] === "E_2_3_|
__3_laurel_westEnd") {
    // Set Tail Track Colors
    this.state.tail_3_e = color_2;
    this.state.tail_2_w = color_2;

    // The Route Is Occupied
    if (this.state.occupied_2) {
        // Switches
        this.state.sw_11_src = CX_225_R_Occupied;
        this.state.sw_7_src = CX_225_R_Occupied;
        this.state.sw_1_src = CX_135_Occupied_Bottom;

        // Signals
        this.state.sig_10w_src = SIG_W_Stop;
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_4w_src = SIG_W_Stop;
        this.state.sig_6e_src = SIG_E_Stop;
        this.state.sig_12e_src = SIG_E_Stop;
        this.state.sig_4e_src = SIG_E_Stop;
    }
}

```

```

// The Route Is NOT Occupied
else {
    // Switches
    this.state.sw_11_src = CX_225_R_Lined;
    this.state.sw_7_src = CX_225_R_Lined;
    this.state.sw_1_src = CX_135_Lined_Bottom;

    // Signals
    this.state.sig_10w_src = SIG_W_Stop;
    this.state.sig_2w_src = SIG_W_Stop;
    this.state.sig_4w_src = SIG_W_Stop;
    this.state.sig_6e_src = SIG_E_Stop;
    this.state.sig_12e_src = SIG_E_Stop;
    this.state.sig_4e_src = SIG_E_Clear;
}
}
else if (this.state.routes[i] === "W_1_2__|
__2_westSecaucus_laurel") {
    // Set Tail Track Colors
    this.state.tail_1_e = color_1;
    this.state.tail_2_w = color_1;

    // The Route Is Occupied
    if (this.state.occupied_1) {
        // Switches
        this.state.sw_7_src = CX_225_R_Occupied;
        this.state.sw_1_src = CX_135_Occupied_Bottom;

        // Switches
        this.state.sw_7_src = CX_225_R_Lined;
        this.state.sw_1_src = CX_135_Lined_Bottom;

        // Crossovers that could change based of Track #3
Status
        if (this.state.routes.includes("W_3_3__|
__3_hx_laurel") || this.state.routes.includes("E_3_3__|
__3_laurel_westEnd")) {
            // Occupied Track 3
            if (this.state.occupied_3) {
                this.state.sw_11_src =
CX_225_Occupied_Both;
            }
            // Lined Track 3
            else if (this.state.routed_3) {
                this.state.sw_11_src =
CX_225_Lined_Top_Occupied_Bottom;
            }
        }
        // Nothing Track 3
    else {

```

```

        this.state.sw_11_src = CX_225_Occupied_Bottom;
    }

    // Signals
    this.state.sig_2w_src = SIG_W_Stop;
    this.state.sig_4w_src = SIG_W_Stop;
    this.state.sig_12e_src = SIG_E_Stop;
    this.state.sig_4e_src = SIG_E_Stop;
}
else {
    // Switches
    this.state.sw_7_src = CX_225_R_Lined;
    this.state.sw_1_src = CX_135_Lined_Bottom;

    // Crossovers that could change based of Track #3
Status
    if (this.state.routes.includes("W_3_3__|
__3_hx_laurel") || this.state.routes.includes("E_3_3__|
__3_laurel_westEnd")) {
        // Occupied Track 3
        if (this.state.occupied_3) {
            this.state.sw_11_src =
CX_225_Occupied_Top_Lined_Bottom;
        }
        // Lined Track 3
        else if (this.state.routed_3) {
            this.state.sw_11_src = CX_225_Lined_Both;
        }
    }
    // Nothing Track 3
    else {
        this.state.sw_11_src = CX_225_Lined_Bottom;
    }

    // Signals
    this.state.sig_2w_src = SIG_W_Clear;
    this.state.sig_4w_src = SIG_W_Stop;
    this.state.sig_12e_src = SIG_E_Stop;
    this.state.sig_4e_src = SIG_E_Stop;
}
}
else if (this.state.routes[i] === "E_2_1__|
__1_laurel_westEnd") {
    // Set Tail Track Colors
    this.state.tail_1_e = color_2;
    this.state.tail_2_w = color_2;

    // The Route Is Occupied
    if (this.state.occupied_2) {
        // Switches

```

```

        this.state.sw_7_src = CX_225_R_Occupied;
        this.state.sw_1_src = CX_135_Occupied_Bottom;

        // Switches
        this.state.sw_7_src = CX_225_R_Lined;
        this.state.sw_1_src = CX_135_Lined_Bottom;

        // Crossovers that could change based of Track #3
Status
        if (this.state.routes.includes("W_3_3__|
__3_hx_laurel") || this.state.routes.includes("E_3_3__|
__3_laurel_westEnd")) {
            // Occupied Track 3
            if (this.state.occupied_3) {
                this.state.sw_11_src =
CX_225_Occupied_Both;
            }
            // Lined Track 3
            else if (this.state.routed_3) {
                this.state.sw_11_src =
CX_225_Lined_Top_Occupied_Bottom;
            }
        }
        // Nothing Track 3
        else {
            this.state.sw_11_src = CX_225_Occupied_Bottom;
        }

        // Signals
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_4w_src = SIG_W_Stop;
        this.state.sig_12e_src = SIG_E_Stop;
        this.state.sig_4e_src = SIG_E_Stop;
    }
    else {
        // Switches
        this.state.sw_7_src = CX_225_R_Lined;
        this.state.sw_1_src = CX_135_Lined_Bottom;

        // Crossovers that could change based of Track #3
Status
        if (this.state.routes.includes("W_3_3__|
__3_hx_laurel") || this.state.routes.includes("E_3_3__|
__3_laurel_westEnd")) {
            // Occupied Track 3
            if (this.state.occupied_3) {
                this.state.sw_11_src =
CX_225_Occupied_Top_Lined_Bottom;
            }
            // Lined Track 3

```



```

        else if (this.state.routed_3) {
            this.state.sw_11_src = CX_225_Lined_Both;
        }
    }
    // Nothing Track 3
    else {
        this.state.sw_11_src = CX_225_Lined_Bottom;
    }

    // Signals
    this.state.sig_2w_src = SIG_W_Stop;
    this.state.sig_4w_src = SIG_W_Stop;
    this.state.sig_12e_src = SIG_E_Stop;
    this.state.sig_4e_src = SIG_E_Clear;
}
}
else if (this.state.routes[i] === "W_1_3__|__3_hx_laurel")
{
    // Set Tail Track Colors
    this.state.tail_1_e = color_1;
    this.state.tail_3_w = color_1;

    // The Route Is Occupied
    if (this.state.occupied_1) {
        // Switches
        this.state.sw_11_src = CX_225_Occupied_Bottom;
        this.state.sw_3_src = CX_135_R_Occupied;

        // Crossovers that could change based off of Track
        #3 status
        if (this.state.routes.includes("W_2_2__|
__2_westSecaucus_laurel") || this.state.routes.includes("E_2_2__|
__2_laurel_westEnd")) {
            // Other Track Is Occupied
            if (this.state.occupied_2) {
                this.state.sw_1_src =
CX_135_Occupied_Both;
                this.state.sw_7_src =
CX_225_Occupied_Both;
            }
            // Other Track Routed
            else if (this.state.routed_2) {
                this.state.sw_1_src =
CX_135_Occupied_Top_Lined_Bottom;
                this.state.sw_7_src =
CX_225_Occupied_Top_Lined_Bottom;
            }
        }
        // Another Possible Route
        else if (this.state.routes.includes("W_4_2__|

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```

__2_westSecaucus_laurel")) {
    // Other Track Is Occupied
    if (this.state.occupied_4) {
        this.state.sw_1_src =
CX_135_Occupied_Both;
        this.state.sw_7_src =
CX_225_Occupied_Both;
    }
    // Other Track Routed
    else if (this.state.routed_4) {
        this.state.sw_1_src =
CX_135_Occupied_Top_Lined_Bottom;
        this.state.sw_7_src =
CX_225_Occupied_Top_Lined_Bottom;
    }
}
else if (this.state.routes.includes("E_2_4__|
__4_laurel_westEnd")) {
    // Other Track Is Occupied
    if (this.state.occupied_2) {
        this.state.sw_1_src =
CX_135_Occupied_Both;
        this.state.sw_7_src =
CX_225_Occupied_Both;
    }
    // Other Track Routed
    else if (this.state.routed_2) {
        this.state.sw_1_src =
CX_135_Occupied_Top_Lined_Bottom;
        this.state.sw_7_src =
CX_225_Occupied_Top_Lined_Bottom;
    }
}
// Nothing On The Other Track
else {
    this.state.sw_1_src = CX_135_Occupied_Top;
    this.state.sw_7_src = CX_225_Occupied_Top;
}

// Signals
this.state.sig_2w_src = SIG_W_Stop;
this.state.sig_10w_src = SIG_W_Stop;
this.state.sig_6e_src = SIG_E_Stop;
this.state.sig_12e_src = SIG_E_Stop;
}
// The Route Is NOT Occupied
else {
    // Switches
    this.state.sw_11_src = CX_225_Lined_Bottom;
    this.state.sw_3_src = CX_135_R_Lined;
}

```

```

// Crossovers that could change based off of Track
#3 status
    if (this.state.routes.includes("W_2_2__|
__2_westSecaucus_laurel") || this.state.routes.includes("E_2_2__|
__2_laurel_westEnd")) {
        // Other Track Is Occupied
        if (this.state.occupied_2) {
            this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
            this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
        }
        // Other Track Routed
        else if (this.state.routed_2) {
            this.state.sw_1_src = CX_135_Lined_Both;
            this.state.sw_7_src = CX_225_Lined_Both;
        }
    }
    // Another Possible Route
    else if (this.state.routes.includes("W_4_2__|
__2_westSecaucus_laurel")) {
        // Other Track Is Occupied
        if (this.state.occupied_4) {
            this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
            this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
        }
        // Other Track Routed
        else if (this.state.routed_4) {
            this.state.sw_1_src = CX_135_Lined_Both;
            this.state.sw_7_src = CX_225_Lined_Both;
        }
    }
    else if (this.state.routes.includes("E_2_4__|
__4_laurel_westEnd")) {
        // Other Track Is Occupied
        if (this.state.occupied_2) {
            this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
            this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
        }
        // Other Track Routed
        else if (this.state.routed_2) {
            this.state.sw_1_src = CX_135_Lined_Both;
            this.state.sw_7_src = CX_225_Lined_Both;
        }
    }
}

```

```

        // Nothing On The Other Track
        else {
            this.state.sw_1_src = CX_135_Lined_Top;
            this.state.sw_7_src = CX_225_Lined_Top;
        }

        // Signals
        this.state.sig_2w_src = SIG_W_Clear;
        this.state.sig_10w_src = SIG_W_Stop;
        this.state.sig_6e_src = SIG_E_Stop;
        this.state.sig_12e_src = SIG_E_Stop;
    }
}
else if (this.state.routes[i] === "E_3_1__|
__1_laurel_westEnd") {
    // Set Tail Track Colors
    this.state.tail_1_e = color_3;
    this.state.tail_3_w = color_3;

    // The Route Is Occupied
    if (this.state.occupied_3) {
        // Switches
        this.state.sw_11_src = CX_225_Occupied_Bottom;
        this.state.sw_3_src = CX_135_R_Occupied;

        // Crossovers that could change based off of Track
        #3 status
        if (this.state.routes.includes("W_2_2__|
__2_westSecaucus_laurel") || this.state.routes.includes("E_2_2__|
__2_laurel_westEnd")) {
            // Other Track Is Occupied
            if (this.state.occupied_2) {
                this.state.sw_1_src =
CX_135_Occupied_Both;
                this.state.sw_7_src =
CX_225_Occupied_Both;
            }
            // Other Track Routed
            else if (this.state.routed_2) {
                this.state.sw_1_src =
CX_135_Occupied_Top_Lined_Bottom;
                this.state.sw_7_src =
CX_225_Occupied_Top_Lined_Bottom;
            }
        }
        // Another Possible Route
        else if (this.state.routes.includes("W_4_2__|
__2_westSecaucus_laurel")) {
            // Other Track Is Occupied
            if (this.state.occupied_4) {

```

```

        this.state.sw_1_src =
CX_135_Occupied_Both;
        this.state.sw_7_src =
CX_225_Occupied_Both;
    }
    // Other Track Routed
    else if (this.state.routed_4) {
        this.state.sw_1_src =
CX_135_Occupied_Top_Lined_Bottom;
        this.state.sw_7_src =
CX_225_Occupied_Top_Lined_Bottom;
    }
}
else if (this.state.routes.includes("E_2_4__|
__4_laurel_westEnd")) {
    // Other Track Is Occupied
    if (this.state.occupied_2) {
        this.state.sw_1_src =
CX_135_Occupied_Both;
        this.state.sw_7_src =
CX_225_Occupied_Both;
    }
    // Other Track Routed
    else if (this.state.routed_2) {
        this.state.sw_1_src =
CX_135_Occupied_Top_Lined_Bottom;
        this.state.sw_7_src =
CX_225_Occupied_Top_Lined_Bottom;
    }
}
// Nothing On The Other Track
else {
    this.state.sw_1_src = CX_135_Occupied_Top;
    this.state.sw_7_src = CX_225_Occupied_Top;
}

// Signals
this.state.sig_2w_src = SIG_W_Stop;
this.state.sig_10w_src = SIG_W_Stop;
this.state.sig_6e_src = SIG_E_Stop;
this.state.sig_12e_src = SIG_E_Stop;
}
// The Route Is NOT Occupied
else {
    // Switches
    this.state.sw_11_src = CX_225_Lined_Bottom;
    this.state.sw_3_src = CX_135_R_Lined;

    // Crossovers that could change based off of Track
#3 status

```

```

        if (this.state.routes.includes("W_2_2_|
__2_westSecaucus_laurel") || this.state.routes.includes("E_2_2_|
__2_laurel_westEnd")) {
            // Other Track Is Occupied
            if (this.state.occupied_2) {
                this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
                this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
            }
            // Other Track Routed
            else if (this.state.routed_2) {
                this.state.sw_1_src = CX_135_Lined_Both;
                this.state.sw_7_src = CX_225_Lined_Both;
            }
        }
        // Another Possible Route
        else if (this.state.routes.includes("W_4_2_|
__2_westSecaucus_laurel")) {
            // Other Track Is Occupied
            if (this.state.occupied_4) {
                this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
                this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
            }
            // Other Track Routed
            else if (this.state.routed_4) {
                this.state.sw_1_src = CX_135_Lined_Both;
                this.state.sw_7_src = CX_225_Lined_Both;
            }
        }
        else if (this.state.routes.includes("E_2_4_|
__4_laurel_westEnd")) {
            // Other Track Is Occupied
            if (this.state.occupied_2) {
                this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
                this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
            }
            // Other Track Routed
            else if (this.state.routed_2) {
                this.state.sw_1_src = CX_135_Lined_Both;
                this.state.sw_7_src = CX_225_Lined_Both;
            }
        }
        // Nothing On The Other Track
        else {
            this.state.sw_1_src = CX_135_Lined_Top;

```

```

        this.state.sw_7_src = CX_225_Lined_Top;
    }

    // Signals
    this.state.sig_2w_src = SIG_W_Stop;
    this.state.sig_10w_src = SIG_W_Stop;
    this.state.sig_6e_src = SIG_E_Clear;
    this.state.sig_12e_src = SIG_E_Stop;
    }
}
else if (this.state.routes[i] === "W_2_1__|__2_hx_laurel")
{
    // Set Tail Track Colors
    this.state.tail_2_e = color_2;
    this.state.tail_1_w = color_2;

    if (this.state.occupied_2) {
        // Switches
        this.state.sw_1_src = CX_135_R_Occupied;
        this.state.sw_7_src = CX_225_Occupied_Bottom;

        // Crossovers that could change based on the
status of Track #3
        if (this.state.routes.includes("W_3_3__|
__3_hx_laurel") || this.state.routes.includes("E_3_3__|
__3_laurel_westEnd")) {
            // Track #3 is Occupied
            if (this.state.occupied_3) {
                this.state.sw_3_src =
CX_135_Occupied_Both;
            }
            // Track #3 is Routed
            else if (this.state.routed_3) {
                this.state.sw_3_src =
CX_135_Lined_Top_Occupied_Bottom;
            }
        }
        // Nothing Track #3
        else {
            this.state.sw_3_src = CX_135_Occupied_Bottom;
        }

        // Crossovers that could change based on the
status of Track #4
        if (this.state.routes.includes("W_4_4__|
__4_westSecaucus_laurel") || this.state.routes.includes("E_4_4__|
__4_laurel_westEnd")) {
            // Track #4 is Occupied
            if (this.state.occupied_4) {
                this.state.sw_13_src =

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```

CX_135_Occupied_Both;
    }
    // Track #4 is Routed
    else if (this.state.routed_4) {
        this.state.sw_13_src =
CX_135_Occupied_Top_Lined_Bottom;
    }
    }
    // Nothing Track #4
    else {
        this.state.sw_13_src = CX_135_Occupied_Top;
    }

    // Signals
    this.state.sig_4w_src = SIG_W_Stop;
    this.state.sig_2w_src = SIG_W_Stop;
    this.state.sig_12e_src = SIG_E_Stop;
    this.state.sig_4e_src = SIG_E_Stop;
}
else {
    // Switches
    this.state.sw_1_src = CX_135_R_Lined;
    this.state.sw_7_src = CX_225_Lined_Bottom;

    // Crossovers that could change based on the
status of Track #3
    if (this.state.routes.includes("W_3_3__|
__3_hx_laurel") || this.state.routes.includes("E_3_3__|
__3_laurel_westEnd")) {
        // Track #3 is Occupied
        if (this.state.occupied_3) {
            this.state.sw_3_src =
CX_135_Occupied_Top_Lined_Bottom;
        }
        // Track #3 is Routed
        else if (this.state.routed_3) {
            this.state.sw_3_src = CX_135_Lined_Both;
        }
    }
    // Nothing Track #3
    else {
        this.state.sw_3_src = CX_135_Lined_Bottom;
    }

    // Crossovers that could change based on the
status of Track #4
    if (this.state.routes.includes("W_4_4__|
__4_westSecaucus_laurel") || this.state.routes.includes("E_4_4__|
__4_laurel_westEnd")) {
        // Track #4 is Occupied

```



```

        if (this.state.occupied_4) {
            this.state.sw_13_src =
CX_135_Lined_Top_Occupied_Bottom;
        }
        // Track #4 is Routed
        else if (this.state.routed_4) {
            this.state.sw_13_src = CX_135_Lined_Both;
        }
    }
    // Nothing Track #4
    else {
        this.state.sw_13_src = CX_135_Lined_Top;
    }

    // Signals
    this.state.sig_4w_src = SIG_W_Clear;
    this.state.sig_2w_src = SIG_W_Stop;
    this.state.sig_12e_src = SIG_E_Stop;
    this.state.sig_4e_src = SIG_E_Stop;
}
}
else if (this.state.routes[i] === "E_1_2__|
__2_laurel_westEnd") {
    // Set Tail Track Colors
    this.state.tail_2_e = color_1;
    this.state.tail_1_w = color_1;

    if (this.state.occupied_1) {
        // Switches
        this.state.sw_1_src = CX_135_R_Occupied;
        this.state.sw_7_src = CX_225_Occupied_Bottom;

        // Crossovers that could change based on the
status of Track #3
        if (this.state.routes.includes("W_3_3__|
__3_hx_laurel") || this.state.routes.includes("E_3_3__|
__3_laurel_westEnd")) {
            // Track #3 is Occupied
            if (this.state.occupied_3) {
                this.state.sw_3_src =
CX_135_Occupied_Both;
            }
            // Track #3 is Routed
            else if (this.state.routed_3) {
                this.state.sw_3_src =
CX_135_Lined_Top_Occupied_Bottom;
            }
        }
        // Nothing Track #3
        else {

```

```

        this.state.sw_3_src = CX_135_Occupied_Bottom;
    }

    // Crossovers that could change based on the
status of Track #4
    if (this.state.routes.includes("W_4_4__|
__4_westSecaucus_laurel") || this.state.routes.includes("E_4_4__|
__4_laurel_westEnd")) {
        // Track #4 is Occupied
        if (this.state.occupied_4) {
            this.state.sw_13_src =
CX_135_Occupied_Both;
        }
        // Track #4 is Routed
        else if (this.state.routed_4) {
            this.state.sw_13_src =
CX_135_Occupied_Top_Lined_Bottom;
        }
    }
    // Nothing Track #4
    else {
        this.state.sw_13_src = CX_135_Occupied_Top;
    }

    // Signals
    this.state.sig_4w_src = SIG_W_Stop;
    this.state.sig_2w_src = SIG_W_Stop;
    this.state.sig_12e_src = SIG_E_Stop;
    this.state.sig_4e_src = SIG_E_Stop;
}
else {
    // Switches
    this.state.sw_1_src = CX_135_R_Lined;
    this.state.sw_7_src = CX_225_Lined_Bottom;

    // Crossovers that could change based on the
status of Track #3
    if (this.state.routes.includes("W_3_3__|
__3_hx_laurel") || this.state.routes.includes("E_3_3__|
__3_laurel_westEnd")) {
        // Track #3 is Occupied
        if (this.state.occupied_3) {
            this.state.sw_3_src =
CX_135_Occupied_Top_Lined_Bottom;
        }
        // Track #3 is Routed
        else if (this.state.routed_3) {
            this.state.sw_3_src = CX_135_Lined_Both;
        }
    }
}

```

```

        // Nothing Track #3
        else {
            this.state.sw_3_src = CX_135_Lined_Bottom;
        }

        // Crossovers that could change based on the
status of Track #4
        if (this.state.routes.includes("W_4_4__|
__4_westSecaucus_laurel") || this.state.routes.includes("E_4_4__|
__4_laurel_westEnd")) {
            // Track #4 is Occupied
            if (this.state.occupied_4) {
                this.state.sw_13_src =
CX_135_Lined_Top_Occupied_Bottom;
            }
            // Track #4 is Routed
            else if (this.state.routed_4) {
                this.state.sw_13_src = CX_135_Lined_Both;
            }
        }
        // Nothing Track #4
        else {
            this.state.sw_13_src = CX_135_Lined_Top;
        }

        // Signals
        this.state.sig_4w_src = SIG_W_Stop;
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_12e_src = SIG_E_Clear;
        this.state.sig_4e_src = SIG_E_Stop;
    }
}
else if (this.state.routes[i] === "W_2_3__|__3_hx_laurel")
{
    // Set Tail Track Colors
    this.state.tail_2_e = color_2;
    this.state.tail_3_w = color_2;

    // The Route Is Occupied
    if (this.state.occupied_2) {
        // Switches
        this.state.sw_7_src = CX_225_Occupied_Bottom;
        this.state.sw_1_src = CX_135_R_Occupied;
        this.state.sw_3_src = CX_135_R_Occupied;

        // Crossovers taht could changed based on the
status of Track #4
        if (this.state.routes.includes("W_4_4__|
__4_westSecaucus_laurel") || this.state.routes.includes("E_4_4__|
__4_laurel_westEnd")) {

```

```

        // Track #4 is Occupied
        if (this.state.occupied_4) {
            this.state.sw_13_src =
CX_135_Occupied_Both;
        }
        // Track #4 is Routed
        else if (this.state.routed_4) {
            this.state.sw_13_src =
CX_135_Occupied_Top_Lined_Bottom;
        }
    }
    // Nothing Track #4
    else {
        this.state.sw_13_src = CX_135_Occupied_Top;
    }

    // Signals
    this.state.sig_4w_src = SIG_W_Stop;
    this.state.sig_2w_src = SIG_W_Stop;
    this.state.sig_10w_src = SIG_W_Stop;
    this.state.sig_6e_src = SIG_E_Stop;
    this.state.sig_12e_src = SIG_E_Stop;
    this.state.sig_4e_src = SIG_E_Stop;
}
// The Route Is NOT Occupied
else {
    // Switches
    this.state.sw_7_src = CX_225_Lined_Bottom;
    this.state.sw_1_src = CX_135_R_Lined;
    this.state.sw_3_src = CX_135_R_Lined;

    // Crossovers taht could changed based on the
status of Track #4
    if (this.state.routes.includes("W_4_4_|
__4_westSecaucus_laurel") || this.state.routes.includes("E_4_4_|
__4_laurel_westEnd")) {
        // Track #4 is Occupied
        if (this.state.occupied_4) {
            this.state.sw_13_src =
CX_135_Lined_Top_Occupied_Bottom;
        }
        // Track #4 is Routed
        else if (this.state.routed_4) {
            this.state.sw_13_src = CX_135_Lined_Both;
        }
    }
    // Nothing Track #4
    else {
        this.state.sw_13_src = CX_135_Lined_Top;
    }
}

```

```

        // Signals
        this.state.sig_4w_src = SIG_W_Clear;
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_10w_src = SIG_W_Stop;
        this.state.sig_6e_src = SIG_E_Stop;
        this.state.sig_12e_src = SIG_E_Stop;
        this.state.sig_4e_src = SIG_E_Stop;
    }
}
else if (this.state.routes[i] === "E_3_2__|
__2_laurel_westEnd") {
    // Set Tail Track Colors
    this.state.tail_2_e = color_3;
    this.state.tail_3_w = color_3;

    // The Route Is Occupied
    if (this.state.occupied_3) {
        // Switches
        this.state.sw_7_src = CX_225_Occupied_Bottom;
        this.state.sw_1_src = CX_135_R_Occupied;
        this.state.sw_3_src = CX_135_R_Occupied;

        // Crossovers taht could changed based on the
status of Track #4
        if (this.state.routes.includes("W_4_4__|
__4_westSecaucus_laurel") || this.state.routes.includes("E_4_4__|
__4_laurel_westEnd")) {
            // Track #4 is Occupied
            if (this.state.occupied_4) {
                this.state.sw_13_src =
CX_135_Occupied_Both;
            }
            // Track #4 is Routed
            else if (this.state.routed_4) {
                this.state.sw_13_src =
CX_135_Occupied_Top_Lined_Bottom;
            }
        }
        // Nothing Track #4
        else {
            this.state.sw_13_src = CX_135_Occupied_Top;
        }

        // Signals
        this.state.sig_4w_src = SIG_W_Stop;
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_10w_src = SIG_W_Stop;
        this.state.sig_6e_src = SIG_E_Stop;
        this.state.sig_12e_src = SIG_E_Stop;
    }
}

```

```

        this.state.sig_4e_src = SIG_E_Stop;
    }
    // The Route Is NOT Occupied
    else {
        // Switches
        this.state.sw_7_src = CX_225_Lined_Bottom;
        this.state.sw_1_src = CX_135_R_Lined;
        this.state.sw_3_src = CX_135_R_Lined;

        // Crossovers taht could changed based on the
status of Track #4
        if (this.state.routes.includes("W_4_4__|
__4_westSecaucus_laurel") || this.state.routes.includes("E_4_4__|
__4_laurel_westEnd")) {
            // Track #4 is Occupied
            if (this.state.occupied_4) {
                this.state.sw_13_src =
CX_135_Lined_Top_Occupied_Bottom;
            }
            // Track #4 is Routed
            else if (this.state.routed_4) {
                this.state.sw_13_src = CX_135_Lined_Both;
            }
        }
        // Nothing Track #4
        else {
            this.state.sw_13_src = CX_135_Lined_Top;
        }

        // Signals
        this.state.sig_4w_src = SIG_W_Stop;
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_10w_src = SIG_W_Stop;
        this.state.sig_6e_src = SIG_E_Clear;
        this.state.sig_12e_src = SIG_E_Stop;
        this.state.sig_4e_src = SIG_E_Stop;
    }
}
else if (this.state.routes[i] === "W_4_2__|
__2_westSecaucus_laurel") {
    // Set Tail Track Colors
    this.state.tail_4_e = color_4;
    this.state.tail_2_w = color_4;

    if (this.state.occupied_4) {
        // Switches
        this.state.sw_13_src = CX_135_R_Occupied;

        // Crossovers that could change based on the
status of Track #1

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```

        if (this.state.routes.includes("W_1_1__|
__1_hx_laurel") || this.state.routes.includes("E_1_1__|
__1_laurel_westEnd")) {
            // Track #1 is Occupied
            if (this.state.occupied_1) {
                this.state.sw_7_src =
CX_225_Occupied_Both;
                this.state.sw_1_src =
CX_135_Occupied_Both;
            }
            // Track #1 is Routed
            else if (this.state.routed_1) {
                this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
                this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
            }
        }
        else if (this.state.routes.includes("E_3_1__|
__1_laurel_westEnd")) {
            // Track #1 is Occupied
            if (this.state.occupied_3) {
                this.state.sw_7_src =
CX_225_Occupied_Both;
                this.state.sw_1_src =
CX_135_Occupied_Both;
            }
            // Track #1 is Routed
            else if (this.state.routed_3) {
                this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
                this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
            }
        }
        else if (this.state.routes.includes("E_1_3__|
__3_laurel_westEnd")) {
            // Track #1 is Occupied
            if (this.state.occupied_1) {
                this.state.sw_7_src =
CX_225_Occupied_Both;
                this.state.sw_1_src =
CX_135_Occupied_Both;
            }
            // Track #1 is Routed
            else if (this.state.routed_1) {
                this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
                this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
            }
        }
    }

```

```

    }
}
// Nothing Track #1
else {
    this.state.sw_7_src = CX_225_Occupied_Bottom;
    this.state.sw_1_src = CX_135_Occupied_Bottom;
}

// Signals
this.state.sig_8w_src = SIG_W_Stop;
this.state.sig_4w_src = SIG_W_Stop;
this.state.sig_4e_src = SIG_E_Stop;
this.state.sig_8e_src = SIG_E_Stop;
}
else {
    // Switches
    this.state.sw_13_src = CX_135_R_Lined;

    // Crossovers that could change based on the
status of Track #1
    if (this.state.routes.includes("W_1_1__|
__1_hx_laurel") || this.state.routes.includes("E_1_1__|
__1_laurel_westEnd")) {
        // Track #1 is Occupied
        if (this.state.occupied_1) {
            this.state.sw_7_src =
CX_225_Occupied_Top_Lined_Bottom;
            this.state.sw_1_src =
CX_135_Occupied_Top_Lined_Bottom;
        }
        // Track #1 is Routed
        else if (this.state.routed_1) {
            this.state.sw_7_src = CX_225_Lined_Both;
            this.state.sw_1_src = CX_135_Lined_Both;
        }
    }
    else if (this.state.routes.includes("E_3_1__|
__1_laurel_westEnd")) {
        // Track #1 is Occupied
        if (this.state.occupied_3) {
            this.state.sw_7_src =
CX_225_Occupied_Top_Lined_Bottom;
            this.state.sw_1_src =
CX_135_Occupied_Top_Lined_Bottom;
        }
        // Track #1 is Routed
        else if (this.state.routed_3) {
            this.state.sw_7_src = CX_225_Lined_Both;
            this.state.sw_1_src = CX_135_Lined_Both;
        }
    }
}

```



```

    }
    else if (this.state.routes.includes("E_1_3__|
__3_laurel_westEnd")) {
        // Track #1 is Occupied
        if (this.state.occupied_1) {
            this.state.sw_7_src =
CX_225_Occupied_Top_Lined_Bottom;
            this.state.sw_1_src =
CX_135_Occupied_Top_Lined_Bottom;
        }
        // Track #1 is Routed
        else if (this.state.routed_1) {
            this.state.sw_7_src = CX_225_Lined_Both;
            this.state.sw_1_src = CX_135_Lined_Both;
        }
    }
    // Nothing Track #1
    else {
        this.state.sw_7_src = CX_225_Lined_Bottom;
        this.state.sw_1_src = CX_135_Lined_Bottom;
    }

    // Signals
    this.state.sig_8w_src = SIG_W_Clear;
    this.state.sig_4w_src = SIG_W_Stop;
    this.state.sig_4e_src = SIG_E_Stop;
    this.state.sig_8e_src = SIG_E_Stop;
}
}
else if (this.state.routes[i] === "E_2_4__|
__4_laurel_westEnd") {
    // Set Tail Track Colors
    this.state.tail_4_e = color_2;
    this.state.tail_2_w = color_2;

    if (this.state.occupied_2) {
        // Switches
        this.state.sw_13_src = CX_135_R_Occupied;

        // Crossovers that could change based on the
status of Track #1
        if (this.state.routes.includes("W_1_1__|
__1_hx_laurel") || this.state.routes.includes("E_1_1__|
__1_laurel_westEnd")) {
            // Track #1 is Occupied
            if (this.state.occupied_1) {
                this.state.sw_7_src =
CX_225_Occupied_Both;
                this.state.sw_1_src =
CX_135_Occupied_Both;

```

```

        }
        // Track #1 is Routed
        else if (this.state.routed_1) {
            this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
            this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
        }
    }
    else if (this.state.routes.includes("E_3_1__|
__1_laurel_westEnd")) {
        // Track #1 is Occupied
        if (this.state.occupied_3) {
            this.state.sw_7_src =
CX_225_Occupied_Both;
            this.state.sw_1_src =
CX_135_Occupied_Both;
        }
        // Track #1 is Routed
        else if (this.state.routed_3) {
            this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
            this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
        }
    }
    else if (this.state.routes.includes("E_1_3__|
__3_laurel_westEnd")) {
        // Track #1 is Occupied
        if (this.state.occupied_1) {
            this.state.sw_7_src =
CX_225_Occupied_Both;
            this.state.sw_1_src =
CX_135_Occupied_Both;
        }
        // Track #1 is Routed
        else if (this.state.routed_1) {
            this.state.sw_7_src =
CX_225_Lined_Top_Occupied_Bottom;
            this.state.sw_1_src =
CX_135_Lined_Top_Occupied_Bottom;
        }
    }
    // Nothing Track #1
    else {
        this.state.sw_7_src = CX_225_Occupied_Bottom;
        this.state.sw_1_src = CX_135_Occupied_Bottom;
    }

    // Signals

```

```

        this.state.sig_8w_src = SIG_W_Stop;
        this.state.sig_4w_src = SIG_W_Stop;
        this.state.sig_4e_src = SIG_E_Stop;
        this.state.sig_8e_src = SIG_E_Stop;
    }
    else {
        // Switches
        this.state.sw_13_src = CX_135_R_Lined;

        // Crossovers that could change based on the
status of Track #1
        if (this.state.routes.includes("W_1_1__|
__1_hx_laurel") || this.state.routes.includes("E_1_1__|
__1_laurel_westEnd")) {
            // Track #1 is Occupied
            if (this.state.occupied_1) {
                this.state.sw_7_src =
CX_225_Occupied_Top_Lined_Bottom;
                this.state.sw_1_src =
CX_135_Occupied_Top_Lined_Bottom;
            }
            // Track #1 is Routed
            else if (this.state.routed_1) {
                this.state.sw_7_src = CX_225_Lined_Both;
                this.state.sw_1_src = CX_135_Lined_Both;
            }
        }
        else if (this.state.routes.includes("E_3_1__|
__1_laurel_westEnd")) {
            // Track #1 is Occupied
            if (this.state.occupied_3) {
                this.state.sw_7_src =
CX_225_Occupied_Top_Lined_Bottom;
                this.state.sw_1_src =
CX_135_Occupied_Top_Lined_Bottom;
            }
            // Track #1 is Routed
            else if (this.state.routed_3) {
                this.state.sw_7_src = CX_225_Lined_Both;
                this.state.sw_1_src = CX_135_Lined_Both;
            }
        }
        else if (this.state.routes.includes("E_1_3__|
__3_laurel_westEnd")) {
            // Track #1 is Occupied
            if (this.state.occupied_1) {
                this.state.sw_7_src =
CX_225_Occupied_Top_Lined_Bottom;
                this.state.sw_1_src =
CX_135_Occupied_Top_Lined_Bottom;

```

```

    }
    // Track #1 is Routed
    else if (this.state.routed_1) {
        this.state.sw_7_src = CX_225_Lined_Both;
        this.state.sw_1_src = CX_135_Lined_Both;
    }
}
// Nothing Track #1
else {
    this.state.sw_7_src = CX_225_Lined_Bottom;
    this.state.sw_1_src = CX_135_Lined_Bottom;
}

// Signals
this.state.sig_8w_src = SIG_W_Stop;
this.state.sig_4w_src = SIG_W_Stop;
this.state.sig_4e_src = SIG_E_Clear;
this.state.sig_8e_src = SIG_E_Stop;
}
}
else if (this.state.routes[i] === "W_4_1__|__2_hx_laurel")
{
    // Set Tail Track Colors
    this.state.tail_4_e = color_4;
    this.state.tail_1_w = color_4;

    // The Route Is Occupied
    if (this.state.occupied_4) {
        // Switches
        this.state.sw_13_src = CX_135_R_Occupied;
        this.state.sw_7_src = CX_225_Occupied_Bottom;
        this.state.sw_1_src = CX_135_R_Occupied;

        // Crossovers that could change based on the state
of Track #3
        if (this.state.routes.includes("W_3_3__|
__3_hx_laurel") || this.state.routes.includes("E_3_3__|
__3_laurel_westEnd")) {
            // Track #3 is Occupied
            if (this.state.occupied_3) {
                this.state.sw_3_src =
CX_135_Occupied_Both;
            }
            // Track #3 Is Routed
            else if (this.state.routed_3) {
                this.state.sw_3_src =
CX_135_Lined_Top_Occupied_Bottom;
            }
        }
    }
    // Nothing Track #3

```

```

        else {
            this.state.sw_3_src = CX_135_Occupied_Bottom;
        }

        // Signals
        this.state.sig_8w_src = SIG_W_Stop;
        this.state.sig_4w_src = SIG_W_Stop;
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_8e_src = SIG_E_Stop;
        this.state.sig_4e_src = SIG_E_Stop;
        this.state.sig_12e_src = SIG_E_Stop;
    }
    // The Route Is NOT Occupied
    else {
        // Switches
        this.state.sw_13_src = CX_135_R_Lined;
        this.state.sw_7_src = CX_225_Lined_Bottom;
        this.state.sw_1_src = CX_135_R_Lined;

        // Crossovers that could change based on the state
of Track #3
        if (this.state.routes.includes("W_3_3__|
__3_hx_laurel") || this.state.routes.includes("E_3_3__|
__3_laurel_westEnd")) {
            // Track #3 is Occupied
            if (this.state.occupied_3) {
                this.state.sw_3_src =
CX_135_Occupied_Top_Lined_Bottom;
            }
            // Track #3 Is Routed
            else if (this.state.routed_3) {
                this.state.sw_3_src = CX_135_Lined_Both;
            }
        }
        // Nothing Track #3
        else {
            this.state.sw_3_src = CX_135_Lined_Bottom;
        }

        // Signals
        this.state.sig_8w_src = SIG_W_Clear;
        this.state.sig_4w_src = SIG_W_Stop;
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_8e_src = SIG_E_Stop;
        this.state.sig_4e_src = SIG_E_Stop;
        this.state.sig_12e_src = SIG_E_Stop;
    }
}
    else if (this.state.routes[i] === "E_1_4__|
__4_laurel_westEnd") {

```

```

// Set Tail Track Colors
this.state.tail_4_e = color_1;
this.state.tail_1_w = color_1;

// The Route Is Occupied
if (this.state.occupied_1) {
    // Switches
    this.state.sw_13_src = CX_135_R_Occupied;
    this.state.sw_7_src = CX_225_Occupied_Bottom;
    this.state.sw_1_src = CX_135_R_Occupied;

    // Crossovers that could change based on the state
of Track #3
    if (this.state.routes.includes("W_3_3__|
__3_hx_laurel") || this.state.routes.includes("E_3_3__|
__3_laurel_westEnd")) {
        // Track #3 is Occupied
        if (this.state.occupied_3) {
            this.state.sw_3_src =
CX_135_Occupied_Both;
        }
        // Track #3 Is Routed
        else if (this.state.routed_3) {
            this.state.sw_3_src =
CX_135_Lined_Top_Occupied_Bottom;
        }
    }
    // Nothing Track #3
    else {
        this.state.sw_3_src = CX_135_Occupied_Bottom;
    }

    // Signals
    this.state.sig_8w_src = SIG_W_Stop;
    this.state.sig_4w_src = SIG_W_Stop;
    this.state.sig_2w_src = SIG_W_Stop;
    this.state.sig_8e_src = SIG_E_Stop;
    this.state.sig_4e_src = SIG_E_Stop;
    this.state.sig_12e_src = SIG_E_Stop;
}
// The Route Is NOT Occupied
else {
    // Switches
    this.state.sw_13_src = CX_135_R_Lined;
    this.state.sw_7_src = CX_225_Lined_Bottom;
    this.state.sw_1_src = CX_135_R_Lined;

    // Crossovers that could change based on the state
of Track #3
    if (this.state.routes.includes("W_3_3__|

```

```

__3_hx_laurel") || this.state.routes.includes("E_3_3__|
__3_laurel_westEnd")) {
    // Track #3 is Occupied
    if (this.state.occupied_3) {
        this.state.sw_3_src =
CX_135_Occupied_Top_Lined_Bottom;
    }
    // Track #3 Is Routed
    else if (this.state.routed_3) {
        this.state.sw_3_src = CX_135_Lined_Both;
    }
}
// Nothing Track #3
else {
    this.state.sw_3_src = CX_135_Lined_Bottom;
}

// Signals
this.state.sig_8w_src = SIG_W_Stop;
this.state.sig_4w_src = SIG_W_Stop;
this.state.sig_2w_src = SIG_W_Stop;
this.state.sig_8e_src = SIG_E_Stop;
this.state.sig_4e_src = SIG_E_Stop;
this.state.sig_12e_src = SIG_E_Clear;
}
}
else if (this.state.routes[i] === "W_4_3__|__3_hx_laurel")
{
    // Set Tail Track Colors
    this.state.tail_4_e = color_4;
    this.state.tail_3_w = color_4;

    if (this.state.occupied_4) {
        // Switches
        this.state.sw_13_src = CX_135_R_Occupied;
        this.state.sw_7_src = CX_225_Occupied_Bottom;
        this.state.sw_3_src = CX_135_R_Occupied;
        this.state.sw_1_src = CX_135_R_Occupied;

        // Signals
        this.state.sig_8w_src = SIG_W_Stop;
        this.state.sig_4w_src = SIG_W_Stop;
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_10w_src = SIG_W_Stop;
        this.state.sig_8e_src = SIG_E_Stop;
        this.state.sig_4e_src = SIG_E_Stop;
        this.state.sig_6e_src = SIG_E_Stop;
        this.state.sig_12e_src = SIG_E_Stop;
    }
    else {

```

```

        // Switches
        this.state.sw_13_src = CX_135_R_Lined;
        this.state.sw_7_src = CX_225_Lined_Bottom;
        this.state.sw_3_src = CX_135_R_Lined;
        this.state.sw_1_src = CX_135_R_Lined;

        // Signals
        this.state.sig_8w_src = SIG_W_Clear;
        this.state.sig_4w_src = SIG_W_Stop;
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_10w_src = SIG_W_Stop;
        this.state.sig_8e_src = SIG_E_Stop;
        this.state.sig_4e_src = SIG_E_Stop;
        this.state.sig_6e_src = SIG_E_Stop;
        this.state.sig_12e_src = SIG_E_Stop;
    }
}
else if (this.state.routes[i] === "E_3_4__|
__4_laurel_westEnd") {
    // Set Tail Track Colors
    this.state.tail_4_e = color_3;
    this.state.tail_3_w = color_3;

    if (this.state.occupied_3) {
        // Switches
        this.state.sw_13_src = CX_135_R_Occupied;
        this.state.sw_7_src = CX_225_Occupied_Bottom;
        this.state.sw_3_src = CX_135_R_Occupied;
        this.state.sw_1_src = CX_135_R_Occupied;

        // Signals
        this.state.sig_8w_src = SIG_W_Stop;
        this.state.sig_4w_src = SIG_W_Stop;
        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_10w_src = SIG_W_Stop;
        this.state.sig_8e_src = SIG_E_Stop;
        this.state.sig_4e_src = SIG_E_Stop;
        this.state.sig_6e_src = SIG_E_Stop;
        this.state.sig_12e_src = SIG_E_Stop;
    }
    else {
        // Switches
        this.state.sw_13_src = CX_135_R_Lined;
        this.state.sw_7_src = CX_225_Lined_Bottom;
        this.state.sw_3_src = CX_135_R_Lined;
        this.state.sw_1_src = CX_135_R_Lined;

        // Signals
        this.state.sig_8w_src = SIG_W_Stop;
        this.state.sig_4w_src = SIG_W_Stop;
    }
}

```



```

        this.state.sig_2w_src = SIG_W_Stop;
        this.state.sig_10w_src = SIG_W_Stop;
        this.state.sig_8e_src = SIG_E_Stop;
        this.state.sig_4e_src = SIG_E_Stop;
        this.state.sig_6e_src = SIG_E_Clear;
        this.state.sig_12e_src = SIG_E_Stop;
    }
}
}
}
// ---- END set_route_drawings() ----

/**
 * set_switch_img()
 * @summary Changes image sources for the switches, depending on
switch status
 *
 * This function uses the data passed in through status from the
CTC classes and
 * shows if the switches are reversed or not on the screen, by
changing the image
 * source files, to the correct .png file respectively
 */
set_switch_img = () => {
    // Set the state of SW #1
    // SW #1 Reversed
    if (this.state.sw_1) {
        this.state.sw_1_src = CX_135_R;
    }
    // SW #1 Normal
    else {
        this.state.sw_1_src = CX_135;
    }

    // Set the state of SW #3
    // SW #3 Reversed
    if (this.state.sw_3) {
        this.state.sw_3_src = CX_135_R;
    }
    // SW #3 Normal
    else {
        this.state.sw_3_src = CX_135;
    }

    // Set the state of SW #7
    // SW #7 Reversed
    if (this.state.sw_7) {
        this.state.sw_7_src = CX_225_R;
    }
}

```

```

// SW #7 Normal
else {
    this.state.sw_7_src = CX_225;
}

// Set the state of SW #9
// SW #9 Reversed
if (this.state.sw_9) {
    this.state.sw_9_src = CX_135_R;
}
// SW #9 Normal
else {
    this.state.sw_9_src = CX_135;
}

// Set the state of SW #11
// SW #11 Reversed
if (this.state.sw_11) {
    this.state.sw_11_src = CX_225_R;
}
// SW #11 Normal
else {
    this.state.sw_11_src = CX_225;
}

// Set the state of SW #13
// SW #13 Reversed
if (this.state.sw_13) {
    this.state.sw_13_src = CX_135_R;
}
// SW #13 Normal
else {
    this.state.sw_13_src = CX_135;
}
}
// ---- END set_switch_image() ----

```

```

/**
 * reset_drawings()
 * @summary Function to reset the signal images and track colors
 *
 * This function is need, because if the player was to remove a
route,
 * or when the train clears the interlocking nothing will clear
the route
 * the is displaying on the screen, even if it's gone in the
backend
 */
reset_drawings() {

```

```

    this.state.sig_2w_src = SIG_W;
    this.state.sig_4w_src = SIG_W;
    this.state.sig_8w_src = SIG_W;
    this.state.sig_10w_src = SIG_W;
    this.state.sig_4e_src = SIG_E;
    this.state.sig_6e_src = SIG_E;
    this.state.sig_8e_src = SIG_E;
    this.state.sig_12e_src = SIG_E;

    this.state.tail_3_e = Empty;
    this.state.tail_1_e = Empty;
    this.state.tail_2_e = Empty;
    this.state.tail_4_e = Empty;
    this.state.tail_3_center = Empty;
    this.state.tail_3_w = Empty;
    this.state.tail_1_w = Empty;
    this.state.tail_2_w = Empty;
    this.state.tail_4_w = Empty;
  }
  //---- END reset_drawings() ----
}

// Export the interlocking to be drawn on the screen
export default Laurel;

```