Jigged - Design System

Overview

Jigged uses Material-UI (MUI) v5+ as the component library, following Material Design 3 principles with custom theming for manufacturing industry aesthetics.

Brand Identity

User-Tested Colors

These colors received "pretty fucking awesome" feedback from target users (manufacturing shop owners):

- **Steel Blue:** `#4682B4` - Primary brand color for CTAs, links, and key actions
- **Deep Indigo:** `#111439` - Dark mode foundation and sophisticated depth
- **Neutral Gray:** `#B0B3B8` - Secondary elements and supporting text

Background Gradients

Light Mode:

```
linear-gradient(135deg, #f0f4f8 0%, #d4dce6 100%)
```

Soft, professional gradient evoking machined metal surfaces. Readable in bright shop environments.

Dark Mode:

```
linear-gradient(135deg, #111439 0%, #1a1f4a 100%)
```

Industrial machine shop aesthetic. Deep indigo base with subtle variation for visual interest.

MUI Theme Configuration

Light Theme

```javascript
import { createTheme } from '@mui/material/styles';

const lightTheme = createTheme({
  palette: {
    mode: 'light',
    primary: {
      main: '#4682B4',     // Steel Blue
      light: '#5a96c9',    // Hover state
      dark: '#3a6f9a',     // Pressed state
      contrastText: '#fff',
    },
    secondary: {
      main: '#B0B3B8',     // Neutral Gray
      light: '#c5c7cc',
      dark: '#9a9da1',
    },
    background: {
      default: '#f0f4f8',   // Light gradient start
      paper: '#ffffff',     // Cards, surfaces
    },
    text: {
      primary: '#1a1d29',
      secondary: '#64748b',
    },
    success: { main: '#10b981' },  // Completed jobs
    warning: { main: '#f59e0b' },  // Approaching deadlines
    error: { main: '#ef4444' },    // Overdue, errors
    info: { main: '#3b82f6' },     // Informational
  },
  typography: {
    fontFamily: '-apple-system, BlinkMacSystemFont, "Segoe UI", Roboto, "Helvetica Neue", sans-serif',
    h1: {
      fontSize: '2.5rem',
```

```
      fontWeight: 700,
      lineHeight: 1.2,
    },
    h2: {
      fontSize: '2rem',
      fontWeight: 600,
      lineHeight: 1.3,
    },
    h3: {
      fontSize: '1.75rem',
      fontWeight: 600,
      lineHeight: 1.3,
    },
    h4: {
      fontSize: '1.5rem',
      fontWeight: 600,
      lineHeight: 1.4,
    },
    h5: {
      fontSize: '1.25rem',
      fontWeight: 600,
      lineHeight: 1.4,
    },
    h6: {
      fontSize: '1rem',
      fontWeight: 600,
      lineHeight: 1.5,
    },
    body1: {
      fontSize: '1rem',
      lineHeight: 1.6,
    },
    body2: {
      fontSize: '0.875rem',
      lineHeight: 1.5,
    },
```

```
  button: {
   textTransform: 'none',  // No ALL CAPS
   fontWeight: 500,
  },
 },
 shape: {
  borderRadius: 8,
 },
 components: {
  MuiButton: {
   styleOverrides: {
    root: {
     textTransform: 'none',
     fontWeight: 500,
     padding: '10px 20px',
    },
    sizeLarge: {
     padding: '12px 24px',
     fontSize: '1rem',
    },
   },
  },
  MuiTextField: {
   defaultProps: {
    variant: 'outlined',
   },
  },
  MuiCard: {
   styleOverrides: {
    root: {
     boxShadow: '0 1px 3px rgba(0, 0, 0, 0.1)',
    },
   },
  },
```

```
    },
  });
```

Dark Theme

```
const darkTheme = createTheme({
  palette: {
    mode: 'dark',
    primary: {
      main: '#4682B4',      // Steel Blue (same as light)
      light: '#5a96c9',
      dark: '#3a6f9a',
      contrastText: '#fff',
    },
    secondary: {
      main: '#B0B3B8',      // Neutral Gray
      light: '#c5c7cc',
      dark: '#9a9da1',
    },
    background: {
      default: '#111439',   // Deep Indigo
      paper: '#1a1f4a',     // Elevated surfaces
    },
    text: {
      primary: '#f8fafc',
      secondary: '#B0B3B8',
    },
    success: { main: '#10b981' },
    warning: { main: '#f59e0b' },
    error: { main: '#ef4444' },
    info: { main: '#3b82f6' },
  },
  // ... same typography, shape, components as light theme
  components: {
    MuiCard: {
```

```
  styleOverrides: {
   root: {
    boxShadow: '0 1px 3px rgba(0, 0, 0, 0.3)',
   },
  },
 },
});
```

Design Principles

1. Professional, Not Trendy

Must appeal to 50-60 year old shop owners. Avoid flashy animations or overly modern aesthetics. Focus on clarity and function.

2. Industrial Aesthetic

Evoke machined metal, precision manufacturing. Use gradients that suggest steel and industrial materials. Colors should feel substantial, not playful.

3. Readable in Bright Environments

Shop floors have bright fluorescent lighting. Ensure sufficient contrast. Light mode must work under harsh lighting conditions on tablets.

4. Automatic Theme Switching

Respect system dark/light mode preference automatically. Use `useMediaQuery('(prefers-color-scheme: dark)')` to detect and switch themes.

5. Material Design Compliance

Follow Material Design 3 guidelines for consistency, accessibility, and familiar interaction patterns.

Component Usage Guidelines

Buttons

Primary Actions (work order creation, approvals):

```
<Button variant="contained" color="primary" size="large">
  Create Work Order
</Button>
```

Secondary Actions (cancel, back):

```
<Button variant="outlined" color="primary">
  Cancel
</Button>
```

Tertiary Actions (less important options):

```
<Button variant="text" color="primary">
  Skip
</Button>
```

Text Fields

```
<TextField
  fullWidth
  label="Work Order Number"
  variant="outlined"
  margin="normal"
/>
```

Cards

```
<Card elevation={3}>
  <CardContent>
    <Typography variant="h6" gutterBottom>
      Work Order #1234
```

```
      </Typography>
      <Typography variant="body2" color="text.secondary">
        Customer: Acme Corp
      </Typography>
    </CardContent>
  </Card>
```

Status Badges

```
<Chip
  label="In Progress"
  color="info"
  size="small"
/>

<Chip
  label="Complete"
  color="success"
  size="small"
/>

<Chip
  label="Overdue"
  color="error"
  size="small"
/>
```

Typography Scale

- **h1**: 2.5rem (40px) - Page titles

- **h2**: 2rem (32px) - Section headings

- **h3**: 1.75rem (28px) - Subsection headings

- **h4**: 1.5rem (24px) - Card titles

- **h5**: 1.25rem (20px) - Component headings

- **h6**: 1rem (16px) - Small headings

- **body1**: 1rem (16px) - Primary body text

- **body2**: 0.875rem (14px) - Secondary body text

- **caption**: 0.75rem (12px) - Captions, helper text

Spacing System

MUI uses an 8px base spacing unit accessed via `theme.spacing(n)` :

- `spacing(1)` = 8px

- `spacing(2)` = 16px

- `spacing(3)` = 24px

- `spacing(4)` = 32px

- `spacing(6)` = 48px

- `spacing(8)` = 64px

Common usage:

```
<Box sx={{ p: 3 }}>  {/* 24px padding on all sides */}
<Box sx={{ mb: 2 }}>  {/* 16px margin bottom */}
<Box sx={{ px: 4, py: 2 }}>  {/* 32px horizontal, 16px vertical padding */}
```

Color Palette

Status Colors

- **Success / Complete:** `#10b981` - Work orders finished, quality passed

- **Warning / Pending:** `#f59e0b` - Approaching deadlines, needs attention

- **Error / Overdue:** `#ef4444` - Late jobs, critical issues

- **Info / In Progress:** `#3b82f6` - Active work, informational notices

Work Order Status Colors

```javascript
const statusColors = {
  requested: 'default',     // Gray
  approved: 'info',         // Blue
  in_progress: 'primary',   // Steel Blue
  quality_checked: 'info',  // Blue
  shipped: 'success',       // Green
  delivered: 'success',     // Green
  invoiced: 'warning',      // Amber
  complete: 'success',      // Green
  overdue: 'error',         // Red
};
```

Elevation System

MUI provides elevation levels from 0-24:

- **0**: Flat elements (buttons in their default state)

- **1**: Slightly raised cards

- **2**: Standard cards

- **3**: Emphasized cards (auth pages, important forms)

- **4**: App bar, navigation

- **8**: Floating action buttons

- **16**: Modals

- **24**: Full-screen dialogs

Usage:

```jsx
<Card elevation={2}>  {/* Standard card */}
<Card elevation={3}>  {/* Emphasized card */}
<AppBar elevation={4}>  {/* Navigation bar */}
```

Accessibility

WCAG 2.1 Level A Compliance

Color Contrast:

- Text on background must meet 4.5:1 ratio minimum

- Large text (18pt+) must meet 3:1 ratio minimum

- All status colors have been tested for sufficient contrast

Keyboard Navigation:

- All interactive elements are keyboard accessible

- Focus indicators are visible (MUI default blue outline)

- Logical tab order throughout

Touch Targets:

- Minimum 48px × 48px for all interactive elements (MUI default)

- Adequate spacing between touch targets

Screen Reader Support:

- Semantic HTML via MUI components

- ARIA labels where needed

- Proper heading hierarchy

Implementation Example

App-Level Theme Setup

```
import { ThemeProvider, createTheme } from '@mui/material/styles';
import { CssBaseline, useMediaQuery, Box } from '@mui/material';
import { lightTheme, darkTheme } from './theme';

function App() {
  const prefersDarkMode = useMediaQuery('(prefers-color-scheme: dark)');
```

```
const theme = prefersDarkMode ? darkTheme : lightTheme;

return (
  <ThemeProvider theme={theme}>
    <CssBaseline />
    <Box
      sx={{
        minHeight: '100vh',
        background: prefersDarkMode
          ? 'linear-gradient(135deg, #111439 0%, #1a1f4a 100%)'
          : 'linear-gradient(135deg, #f0f4f8 0%, #d4dce6 100%)',
      }}
    >
      {/* App content */}
    </Box>
  </ThemeProvider>
);
}
```

Component Example

```
import { Card, CardContent, Typography, Button, Chip, Box } from '@mui/material';

function WorkOrderCard({ workOrder }) {
  return (
    <Card elevation={2} sx={{ mb: 2 }}>
      <CardContent>
        <Box sx={{ display: 'flex', justifyContent: 'space-between', alignItems: 'center', mb: 2 }}>
          <Typography variant="h6">
            WO-{workOrder.id}
          </Typography>
          <Chip
            label={workOrder.status}
```

```
        color={statusColors[workOrder.status]}
        size="small"
      />
    </Box>

    <Typography variant="body2" color="text.secondary" gutterBottom>
      Customer: {workOrder.customer}
    </Typography>

    <Typography variant="body2" color="text.secondary">
      Due: {workOrder.dueDate}
    </Typography>

    <Box sx={{ mt: 3 }}>
      <Button variant="contained" fullWidth>
        View Details
      </Button>
    </Box>
  </CardContent>
</Card>
);
}
```

Do's and Don'ts

✅ Do:

- Use MUI components exclusively - no plain HTML elements
- Use the `sx` prop for styling - no external CSS files
- Use theme spacing: `sx={{ p: 3 }}` not `sx={{ padding: '24px' }}`
- Use theme colors: `color="primary"` not `sx={{ color: '#4682B4' }}`
- Respect system dark/light mode preference
- Test in both light and dark modes

- Use semantic component variants (contained, outlined, text for buttons)

❌ Don't:

- Mix plain HTML with MUI components

- Write custom CSS files

- Hardcode pixel values - use theme spacing

- Hardcode colors - use theme palette

- Force light or dark mode - respect user preference

- Use `textTransform: 'uppercase'` on buttons (already set to 'none')

- Use overly playful or trendy styling

Mobile Considerations

Shop Floor Requirements

1. **Large Touch Targets**: All buttons, inputs minimum 48px height (MUI default)

2. **Readable Text**: Minimum 16px font size for body text

3. **Simple Navigation**: Bottom navigation for primary actions on mobile

4. **QR Code Scanning**: Large scanning area, clear instructions

5. **Landscape Support**: Work order details should work in landscape

Mobile-Specific Components

```jsx
// Bottom navigation for mobile
import { BottomNavigation, BottomNavigationAction } from '@mui/material';
import WorkIcon from '@mui/icons-material/Work';
import InventoryIcon from '@mui/icons-material/Inventory';

<BottomNavigation>
  <BottomNavigationAction label="Work Orders" icon={<WorkIcon />} />
```

```
  <BottomNavigationAction label="Inventory" icon={<InventoryIcon />} />
</BottomNavigation>
```

Resources

- [Material-UI Documentation](#)

- [Material Design 3 Guidelines](#)

- [MUI Component API](#)

- [MUI Theme Generator](#)

Last Updated: December 27, 2025