

AI, Automation and Open Web Workflows

Converting scattered knowledge into reusable workflows, diagrams, and publishable web material.

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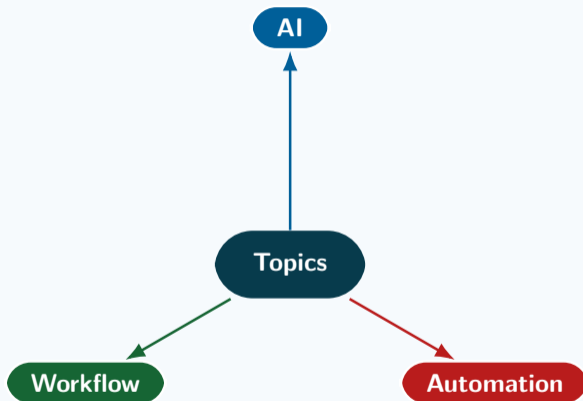
UGC MMTTC Refresher Course

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Refresher Course in Information Technology



Topics We Will Discuss



Basic Frame Syntax

Rendered slide body

Write the visible slide material between `\begin{frame}` and `\end{frame}`.

Title appears above

Body appears here

```
\section{SECTION NAME}
\begin{frame}{Slide Title}
Write slide content here.
\SmallNote{Optional small note.}
\end{frame}
```

Start every normal slide with this simple frame pattern.

Premium Card Syntax

Key idea

Use a card when you want one compact block of text, bullets, code, math, or a short visual.

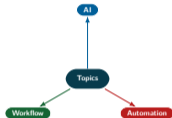
- ▶ Keeps content grouped.
- ▶ Adds border and soft shadow.
- ▶ Works inside columns.

```
\begin{PremiumCard}
{\bfseries Key idea}\par
\vspace{0.14cm}
\small
Your explanation here.

\begin{itemize}\scriptsize
\item First point.
\item Second point.
\end{itemize}
\end{PremiumCard}
```

Use `\PremiumCard` for ordinary text blocks and grouped slide material.

Split: Default Layout



Use this for most teaching slides.

Put the rendered visual on one side and short explanation on the other.

```
\begin{frame}{Topics We Will Discuss}
\Split{
  \MapCard{Topics}
    {AI, Automation, Workflow}
}{
  \begin{PremiumCard}
  \small
  Use this for most teaching slides.
  \end{PremiumCard}
}
\end{frame}
```

`\Split` makes two balanced columns.

Cols: Custom Widths

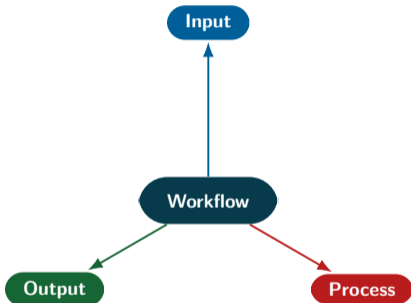


Use `\Cols` only when one side needs more room.
Here the text column is wider than the visual column.

```
\begin{frame}{Custom Width Example}
\Cols{0.34\textwidth}{
  \WheelCard[0.85\linewidth]{AI}
  {Prompt, Agent, Review}
}{0.60\textwidth}{
  \begin{PremiumCard}
  \small
  Use this when one side needs
  more room than the other.
  \end{PremiumCard}
}
\end{frame}
```

Prefer `\Split`; use `\Cols` only for uneven widths.

MapCard: When to Use It

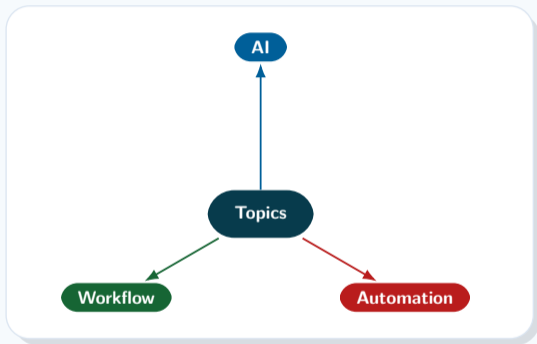


```
\begin{frame}{Workflow Map}
\Split{
  \MapCard{Workflow}
    {Input, Process, Output}
}{
  \begin{PremiumCard}
  \small
  Explanation beside the diagram.
  \end{PremiumCard}
}
\end{frame}
```

Use `\MapCard` when a map should sit inside a normal slide layout.

Use `\MapSlide` for map-only slides; use `\MapCard` inside layouts.

MapSlide: Full-Slide Map

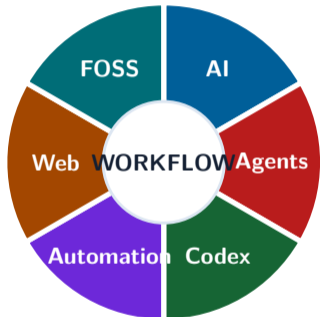


```
\begin{frame}{Topics We Will Discuss}  
\MapSlide{Topics}  
  {AI, Automation, Workflow}  
\end{frame}
```

Use `\MapSlide` when the slide should contain only one large map.

This keeps map-only slides short in `presentation.tex`.

WheelSlide: Full-Slide Wheel



```
\begin{frame}{Workflow Cycle}  
\WheelSlide{WORKFLOW}  
  {AI, Agents, Codex, Automation, Web, FOSS}  
\end{frame}
```

Use `\WheelSlide` when the slide should contain only one large wheel.

Use comma-separated labels.

Math Equations in Cards

Rendered Output

Small equation:

$$E = mc^2$$

Large equation:

$$F = G \frac{m_1 m_2}{r^2}$$

Huge equation:

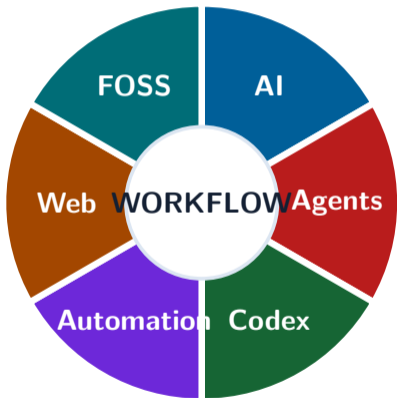
$$\nabla \cdot \vec{E} = \frac{\rho}{\epsilon_0}$$

```
\begin{PremiumCard}
Small equation:
\[
\scalebox{0.75}{E = mc^2}
\]

Large equation:
\[
\scalebox{1.25}{F = G\frac{m_1 m_2}{r^2}}
\]
\end{PremiumCard}
```

Use `\scalebox` when an equation needs resizing inside a card.

Wheel Diagram



The wheel automatically counts the labels.

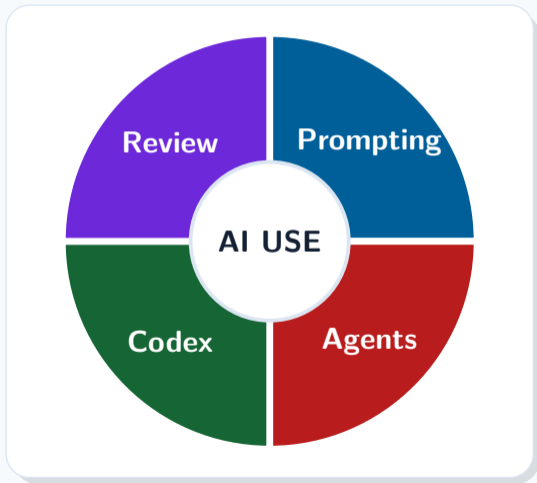
Syntax

```
\WheelCard{WORKFLOW}
```

```
{AI, Agents, Codex, Automation, Web, FOSS}
```

- ▶ Add one to six labels.
- ▶ Separate labels with commas.
- ▶ No empty braces or manual count needed.

Four-Part Wheel



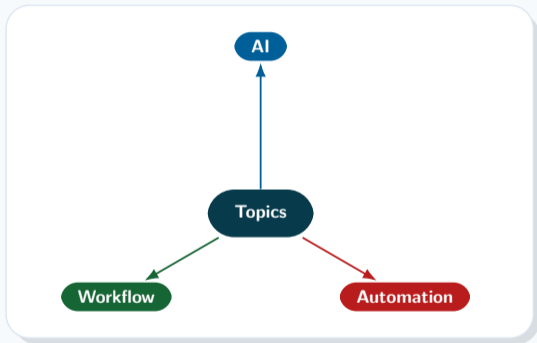
Four-part syntax

```
\WheelCard{AI USE}
```

```
{Prompting, Agents, Codex, Review}
```

- ▶ Good for a compact workflow.
- ▶ Good for comparison or decision cycles.
- ▶ Uses high-contrast colors from the preamble.

Category Map



Code

```
\MapCard{Topics}{AI, Automation,  
Workflow}
```

The preamble handles contrast colors, text color, spacing, arrows, and resizing.

Use comma-separated labels. The first argument is the center label.

Image Command



Operating-system awareness: visual material can be placed inside a thin premium frame with a caption.

Replace only the image path and caption.

Image syntax

```
\ImageCard[0.95\linewidth]
{img/open-source-choice.jpeg}

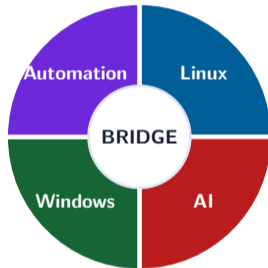
{Caption text}
```

- ▶ Creates a thin border.
- ▶ Adds soft shadow and caption.
- ▶ Keeps raw images in img/.

Image + Wheel Combined



AI can translate Linux command thinking into
Windows automation workflows.



- ▶ Linux skill gives command-line thinking.
- ▶ AI adapts syntax and explains errors.
- ▶ Windows executes the workflow.