

Switch Teams via Keyboard

Goals:

Propose keyboard shortcuts for switching MM teams that are in alignment with users expected behaviours that may have been reinforced by common shortcuts used in competing products.

Avoid changing existing shortcuts as these are learned behaviours of our users.

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Other details:

Github PR: NA

Jira issue: <https://mattermost.atlassian.net/browse/MM-11387>

Invision link: <https://invis.io/NWN56BFU7T8>

Proposed Solution:

Primary Documented Shortcuts

After digging into competitor products Discord, Slack, and Microsoft Teams both desktop apps and browser experiences we propose the following as our primary documented keyboard shortcuts for allowing users to switch Teams:

On Windows	On Mac	Description	Justification
CTRL + ALT + UP/DOWN	CMD + OPT + UP/DOWN	Previous/Next team	Create consistency with our current implementation for switching channels (ALT + UP/DOWN) and provides a natural progression to the hierarchy for switching Teams. While these commands currently can be used for switching channels, they are undocumented and it's unlikely users are using this command for switching channels compared to the documented command of ALT + UP/DOWN
CTRL + ALT + NUMBER	CMD + OPT + NUMBER	Switch to specific teams	Similar to how Slack switches workspaces just following the patterns we have since we have an additional level of allowing users to switch servers.
CTRL + NUMBER	CMD + NUMBER	Switch to specific server. Already implemented (applies in Desktop)	While some competitors use this shortcut for switching teams, in MM it is already used for server switching so it would be undesirable to change this learned behaviour. Note that CMD/CTRL + NUMBER switches browser tabs (synonymous to server switching), so if we implemented this key for switching teams it would only work on desktop, and create unexpected behaviour when trying to use on a browser. This also means we couldn't put it in the keyboard shortcut modal UI. Also note that CMD + SHIFT + NUMBER conflicts with native screen cap commands on Mac, hence why we are not using it to switch teams.
CTRL + SHIFT + [or]	CMD + SHIFT + [or]	Next/Previous Server	Matches behavior of switching browser tabs.

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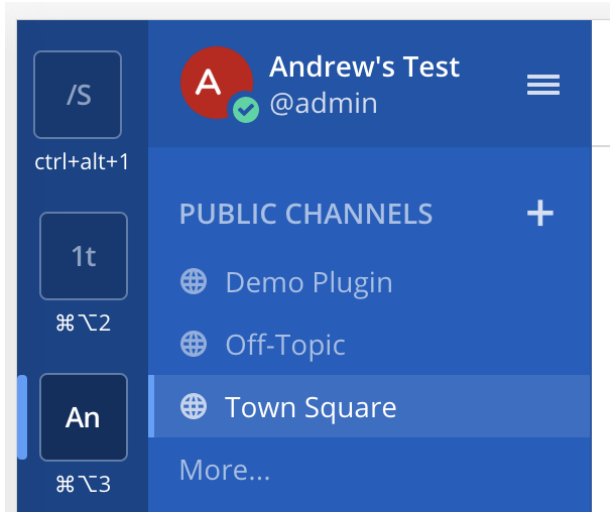
Note: See [research section](#) for matrix of keyboard shortcuts in other products and MM

Secondary Undocumented Shortcuts

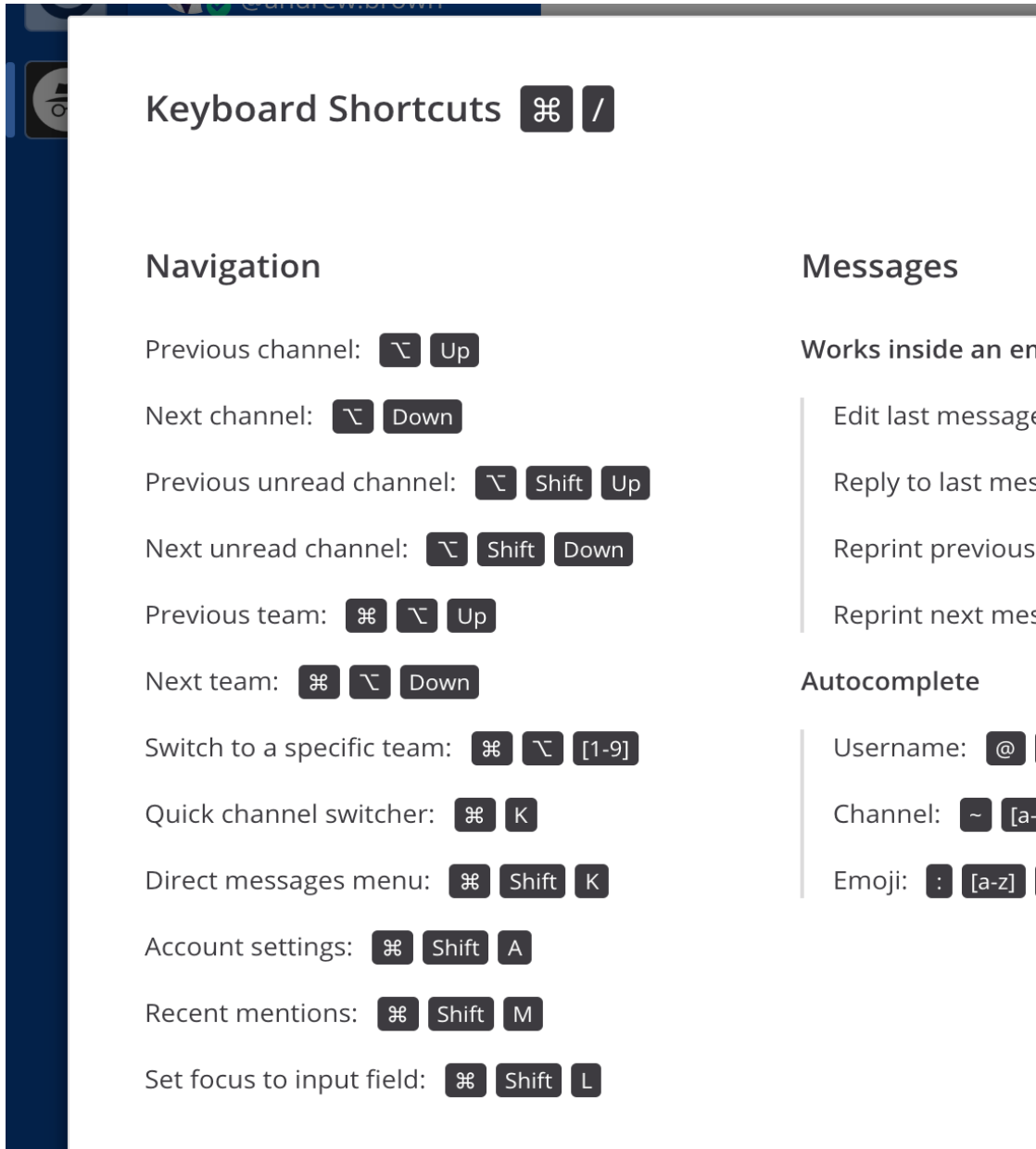
We also propose we support the following secondary undocumented keyboard shortcuts to create consistency between competitor products, MAC and PC versions:

On Windows	On Mac	Description	Justification
CTRL + ALT + [or]	CMD + OPT + [or]	Previous/Next team	[or] is commonly supported for next/previous commands in browsers. Hence offers another option for navigation that may be familiar to users as directional commands on top of the CMD + OPT keys. UP/DOWN should be the primary documented shortcut as it is a natural addition to channel switching using ALT + UP/DOWN

Quick example showing both Windows and Mac shortcuts in the LHS



Shortcuts Dialog



Research:

I created a side by side comparison in a gsheets here:

<https://docs.google.com/spreadsheets/d/1hL0fX3VqzQ7iTH4kj4m5Ej97f10kCkQOU3OURZ8y2dg/edit?usp=sharing>

I also provided this research in invision (follow the link above)

For simplicity i'll only be discussing the mac shortcuts below.

Slack

Slack uses the following for switching "Workspaces" which are our UI equivalent to teams.

CMD + SHIFT + [

CMD + SHIFT +]
CMD + SPECIFIC NUMBER

The following shortcuts also work to be consistent with Slack on windows

CTRL + SHIFT + TAB
CTRL + TAB

Discord

Seems to provide its own keyboard shortcuts for switching teams

CMD + OPTION + UP
CMD + OPTION + DOWN

However interestingly discord also supports (undocumented) what seems to be cross product keyboard shortcut backwards compatibility including slacks

CMD + SHIFT + [
CMD + SHIFT +]
CMD + SPECIFIC NUMBER

AND

CTRL + SHIFT + TAB
CTRL + TAB

Microsoft Teams

Has no equivalent functionality because teams are nothing more than accordion headers that can be expanded and collapsed in the same mixed list.. So they rely solely on navigating up and down channels, skipping to any channel in a team that is visually expanded.

Analysis

Principles

- **Consistency** between web application and desktop application (forgiving)
- **Consistency** between shortcuts from Mac to PC (fast)
- **Consistency** with competitor software (obvious)
- **Don't conflict with default** shortcuts from OS level or browser defaults (forgiving)
- **Future proof** by preserving possible shortcuts for server switching in web application (obvious)

Observations

- The competitors all provide consistency between web application and desktop with the exception of browser default shortcut - affecting switching teams.
 - Slack - non issue as they remove the team nav in web app.
 - Microsoft Teams - don't require / provide a shortcut as users can see and navigate channels across all teams.
 - Discord - use shortcuts that don't conflict with browser defaults for moving between teams.
 - Discord - does not provide a shortcut for switching to specific teams in the web application.

- Discord - uses the cmd / ctrl + number for switching teams only in the desktop application supporting what seems to be an industry standard, however does not officially document this.
- The competitors seem to provide partial consistency on mac with PC shortcuts
 - Slack - support moving previous and next teams (ctrl + tab) but not ctrl + number
 - Microsoft Teams - only supports moving between channels, which is the same shortcuts between mac and pc
 - Discord - Same as slack provides previous and next teams but not specific teams with ctrl + number
- There are a few keyboard shortcuts that seem almost standard between the competitor products:
 - For navigating teams
 - Mac - **Cmd + Shift + [**
 - Mac - **Cmd + Shift +]**
 - Mac - **Cmd + Number**
 - Mac & PC - **Ctrl + Shift + Tab**
 - Mac & PC - **Ctrl + Tab**
 - PC - **Ctrl + Number**
 - Strangely enough each product has chosen a different shortcut for changing channels - however Slacks is **Cmd + [** creating an additive feel between navigating channels and teams.
 - Discord supports Slacks primary team navigation shortcuts (**Cmd + Shift + [** for Mac and **Ctrl + Shift + Tab** for PC) as secondary undocumented shortcuts - I think Mattermost should adopt this strategy.
- The competitors with the exception of Discord have all of their primary team navigation shortcuts conflicting with browser defaults.
 - Slack has no way to switch teams in browser mode other then manual GUI
 - Discord only has navigate next and previous team but does not support the ability to switch to a specific server in browser (the **Ctrl + Number** still conflicts)
 - Microsoft Teams - this isn't an issue because they don't have a concept that requires a team navigation shortcut.
- In order to future proof and "reserve" a shortcut we would need to follow Discords primary shortcut (**Cmd + Shift + Up**) - I'm uncertain this is the best approach as it doesn't associate with any known channel navigation shortcuts

Iterations

9/16/2019

- **Add tooltips on hover with keyboard shortcuts**
 - Team Name, keyboard shortcut on a new line
 - If a user presses a # that is not valid we'll show a badge on the team with the corresponding numbers
 - Holding down CMD or CTRL shows the number badge on the teams
- **Page through server tabs**
 - CMD + shift + [or] = left or right
 - Aligns with browser behavior
 - CTRL + tab = one direction
 - Current behavior in MM
 - CMD + # (1-9)
 - Current behavior in MM
- **Switch Teams**
 - CMD + OPT + # (1-9)
 - Sets focus on the team based on top down order
 - Limited to 10 teams, including 0 which can be discoverable
 - CMD + OPT + Up or Down

- Pages through teams

Questions

- What's the percentage of desktop vs web app users?
- Mapping in the background if you only have one server tab? Basically use CMD + (1-9) if only one server is present on the desktop app and if another server is added the shortcut switches to CMD + OPT + (1-9).
 - This may get confusing as soon as you add another server or switch to a browser.