10.09.2018 (V 0.1)

- Erstelle neue Datei mit: Titel, Autor, Publisher, German. Datei ist nicht sofort editierbar: Editor ist nich anwählbar, Programm hängt sich auf. Programmneustart erforderlich.
- Knopf "Bold" funktioniert nur in eine Richtung.
- Wie füge ich Seitenzahlen ein? Sind die überhaupt notwendig?
- Headers-Navigation verfolgt nicht die Hierarchie.
- Verschiedene Seitennummerierungen? (i,ii,...,1,2,...)
- Kein Feedback, ob erfolgreich gespeichert.

> 10.09.2018 22:00 - 23:11 ☑

Inline Math in HTML:
- https://www.w3.org/MarkUp/html3/maths.html
- http://jkorpela.fi/math/index.html
- https://developer.mozilla.org/de/docs/Web/MathML/Element/math
- Display whole version number in "about"
- "s inside alt-texts break the HTML-Code. ->Escape Char?

$\sqrt{5}$

> 06.11.2018 17:00 - 19:45 ☑

> 18.12.2018 18:26 - 18:40, 19:18 - 20:58 ☑

V0.1.8:

- Doppelkick auf Wort sollte das Wort auswählen (nicht der Fall)
- Neben Buttons für Fett, Kursiv, Unterstrichen, sollte auch ein Button "zu inline Formel" existieren.
- Umgang mit Fließtext in Formeln: mehrere Formelumgebungen nacheinander (umständlich für Blinde), oder *\text{}*, oder nur eine Formel (schwer lesbarer Kursivtext für Standard und Impaired Ansicht).
- TeX: `x\in` produziert "xN" und unterbricht Formelumgebung, anstelle sich äquivalent zu `x \in` zu verhalten ($x \in$).
- Ansicht Code-Editor hat keine Zeilenumbrüche?
- Verhalten der Inline-Formelumgebung hängt von Leerzeichen vor und nach $$ ab.
- Vorschau-Aktualisierung springt zurück zu Anfang des Dokumentes.
- Vorschau-Aktualisierung lässt Programm aufhängen und Cursor verliert Fokus auf das Eingabefenster.
- last saved aktualisiert erst nach Eingabe eines neuen Zeichens <u>Update:</u> anscheinend genügt ebenfalls eine Pfeiltasteneingabe.
- TeX: Inline Formel `P(M) = \{ \{ 1,2 \} , \{ 1 \} , \{ 2 \} , \emptyset \}` funktioniert, aber über Formel einfügen-Fenster nicht.

> 26.12.2018 18:00 - 22:00 ☑

V0.1.9:

- After execution of .msi-package (install.exe not used): Path "AppData/Local/Temp/AccessibleEPUB needed to be created manually, as hinted by error messsage (unhandled exception). After that, opening and creating new files worked as usual.
- Disabled automatic refresh info-box is a great addition!
- Again, conflict between target users (Question about formulas): The expression `Seien $$M, N$$ Mengen` presents the conflict: a double formula in order to respect the space between both sets makes it bloated for blind users (as would `$$M,\ N$$`). This should be clarified in the standard for all conflict cases (a priority is required).
- [Major]: Typing in notepad++ and pressing CTRL+S triggers conversion inside the EPUB editor??? (a window opens telling "please wait while the conversion is done"). Also happens with Typora.
- Selecting text and pressing the button for cursive should not set the following cursor to cursive, but only set the selected as cursive and allow to continue typing in standard formatting without further manipulation.
- I am thinking of a user-readable standard formatting to mark the end of certain paragraphs. Use case: An example is opened with a sub-header called "Example number X" inside the text of the actual section. When does the text switch back to the section-content and leaves the example? In most documents, this is achieved through visual formatting, lost in the blind verions.
- allow "insert formula" window to be smaller (is currently not suited for side-to-side desktop workspace-arrangement on a smaller screen.
- TeX: Document specific LaTeX-Commands/Packages? In order to use `$$ \mathbb{R} $$` for example ($\mathbb{R}$). At least the missing `amssymb` and `amsfont` makes many math symbols difficult to set.
- TeX: Following code is not working `M=N= R, f: R \left\{ \begin{array} R \rightarrow R \\ x \rightarrow x^2 \right\}`.
- TeX: `\{` and `\}` are essential and don't work.
- TeX: need clarification on "override parser": Program crashed.
- Restoration of crashed files? A file still is stored in AppData/Local/Temp/AccessibleEPUB after the crash.
- Localization: French keyboards have numbers accessible through shift. Hence, "CTRL+3" does not work as a shortcut to set headers (resulting in a CTRL+").
- Small window witdh: the buttons to add fomulas, tables, etc... could move up next to the save buttons, instead of disappearing inside a pop-up menu.
- [Major]: See Bug 1
- The visual formattin capabilites of the format should be clarified, most importantly in comparison with TeX-Files (f.e.: Smallcaps for names)

Major Bug event 1:

- saving corrupted the variable startIndex? see backup as `HM-Skript_Css - Copie.epub` and `HM-Skript_Css - Copie error text.epub`.

During editing of the HM-Skript_Css.epub, I added a formula (figure) containing the TeX-code `g\circ f : M \rightarrow P, a \rightarrow g(f(a))`. The formula does not have Title or caption, and is inserted between text.

After saving, the error `HM-Skript_Css - Copie error text.epub` was returned. Continuing allows scroll up/down navigation but no further editing. After a while, the program crashes.

The file was restored using the following method:

- opening the corrupted file
- switch to code-view
- Copy text
- insert text in notepad++
- remove latest figure in each version
- re-download and open the converted `HM-Skript_Css.epub`
- switch to code-view, paste modified code
- save as
- open restored file, overwrite corrupted file (backuped as named above).
- insert figure-formula again, `g \circ f : ( M \rightarrow P, a \rightarrow g(f(a)) )` with title `Beispiel Hintereinanderausfuehrung` and caption `g kreis f`

It is unclear if I somehow interrupted the saving and conversion process.

30.12.2018 11:15 - 12:00 ☑

Bug encountered again: *"StartIndex cannot be less than zero."*

- Working on inserting a formula (a recognized one: `\forall a,b,c \in R (a+b)+c = a+(b+c)`) with a title: `Assoziativgesetz der Addition` but no caption. No alignement, no override.
- Bug from last time triggers again.
- CTRL+S also triggers the save process again while in another window (GLOBAL shortcut???).
- After saving, exited the formula-window via "*cancel*"
- Closed the file
- Reopening it doesn't seem to cause the bug again.
- Second try insterting the formula: Same title, same formula, but this time with caption (`Die Addition ist assoziativ`).
- Info-Box opens asking for overwrite of same-titled existing formula.
- "yes"
- No further apparent problems encountered.

! Caption as well as title seems mandatory when inserting figure-formulas. !

- On small window (halved 1376px-wide screen): empty space is kept in the bottom bar between "*Character Count*" and "*Document language*", masking the last sa the file was saved (when no save was done since opening the file). After save process: the Version display gets "kicked out" of the window to the right.
- Saving/Conversion takes more than 2 minutes on this machine.

05.01.2019 17:30 - 18:15 ☑
06.01.2019 13:15 - 13:45 ☑

- TeX: Compilers are inconsistent (inline recognises `\mathbb{R}` whereas figure doesn't).
- TeX: `<` and `>` are not rendered and break formulas: they result in `>` and `<` instead. And the leading `&` is even interpreted by TeX.

07.01.2019 00:30 - 06:35 ☑

- pagebreaks inside of numbered lists are problematic: possiblity to start list at given number?
- Secondary: Make Headers-Sidebar display hierarchy to get a better feeling for the structural clarity of the document.
- Cross-references? (Jump to section)
- possibility to manually insert list-bullets?
- styling of lists produces bigger fontsize.
- Custom font-colors are not saved (? at least not during same session)
- Possiblity to select all matching words in CTRL+F search for consistent styling would be appreciated. Also "replace".
- possiblity to synchronise scrolling in both panels?
- TeX: (Update) The `<` and `>` : those inserted without space around them are also replaced in the editing panel, whereas those with space around them are only displayed wrongly. No logic coul be determined why this sometimes breaks the whole paragraph and others just the formula. However, the < and > symbols are displayed correctly in text-mode of the editor??? Added spaces before and after every concerned symbol.
- Very positive: search for closing `$$` of inline-formulas ends after paragraph break, which avoids a lot of trouble.
- TeX: (inline) command `\dotsm` not recognized?
- Very positive: Inline-TeX works inside of table cells!
- TeX: `\limits` command does not seem to work (normally force `_` and `^` below and above operator even in inline-display).
- TeX: Applying color to inline-formulas does work!
- pandoc crashed after 4 minutes of conversion time* (convert formulas button)
  - cross on "please wait while conversion is done" does not close the info-window
  - info-window closed after 5:30 minutes of conversion time*.
- Not sure if saving and converting formulas-buttons handle formulas the same way (those at the end of the document may be skipped the first 1-2 times?)
- Time fpr save-process: 5 minutes*. CTRL+S absolutely needs to be freed from global shortcuts.

*on my desktop pc.

Erste Besprechung am 09.01.2019

- ☐ Bugreport für overide Parser typing wrong formula breaks everything
- ☐ Check header shortcut
- ☐ Top1: Neues Logo
- ☐ Sigil anschauen
- ☐ Brailleauthority.org checken http://www.brailleauthority.org/ueb/symbols_list.pdf
- ☐ Inline Formeln überprüfen zwischen pandoc und epub
- ☐ Inline: MathML durch Pandoc, figure live Preview: WPF-Math, figure in Text: Wpf as svg

☐ Handbuch?

- Is it necessary to specify "*xmlns="http://www.w3.org/1998/Math/MathML"*" in each MathML-Block? (I suppose auto-generated by Pandoc)

```
  <p><math display="inline"
xmlns="http://www.w3.org/1998/Math/MathML"><semantics><mrow><mo
stretchy="false" form="prefix">(</mo><msub><mi>a</mi><mi>n</mi></msub>
<mo stretchy="false" form="postfix">)</mo></mrow><annotation
encoding="application/x-tex">(a_n)</annotation></semantics></math></p>
```

- Possibly the conversion would go faster if all formulas would be loaded in the same txt-file? Bottleneck seems to be the multiple pandoc instances loaded one after another (watching the filesize of formulaResult.txt flickering).

> 11.01.2019 17:30 - 19:45

Table of Abbreviations:	Javascript	CSS
English	EJ	EC
German	GJ	GC

Defining Crash types:	Description
"Crash"/"Crashes"	GUI is greyed out, Windows-Box appears "ACCESSIBLE EPUB" stopped working with single option "close" (or "exit"), then the editor-Window closes.
Leroy	"StartIndex is Less than Zero" ;)

As of now, I'll try to mark every bug with the used testfile, be it either grouped by separating the mentions in the bug-file (default will probably be English/CSS) or by adding a shortcut before the concerned item. And related events will be indented below the first one encountered in the session. The shortcuts are listed above.

Also, repeated crashes or bugs will now get names. Our first little friend got baptised "Leroy" for the occasion.

- While generating new testfiles to clarify Language and JavaS/CSS type:
  - Saving new empty File DE/CSS after generating it crashed. Had title, author and publisher indicated. Reopening it: doc-language switched to EN.
  - (CSS): writing on the topmost line adds text next to Mode-switching links.
  - Wrote one line, saved by clicking button, moved cursor with arrow keys, saved again via CTRL+S. Closing program still asks for saving.
- EC TeX-Figure: Input of accents like `^+i` should not be converted to accents like `î`. Those are not recognised by WPF.
- EC TeX-Figure: WPF-Example `L = \int_a^b \sqrt[4]{\left|\sum_{i,j=1}^ng_{ij}\left(\gamma(t)\right) \left[\frac{d}{dt}x^i\circ\gamma(t) \right]\left{\frac{d}{dt}x^j\circ\gamma(t)\right} \right|}dt` is recognised in Live-Preview, but (with title and caption) the "*StartIndex cannot be less than zero*" error is returned.
  - simple Formula `L` without title or caption works, but program crashes after clicking ok (no Leroy).
  - simple Formula `L` with title and caption works!
  - But overwritting the formula with the above by double-clicking the figure-box, and it crashes again.