



# Union der deutschen Akademien 12. Oktober 2011



## Wikimedia & Wikipedia

### Exemplarische Lösungen von Zeichenproblemen



# Persönliches



## Raimond Spekking

### → Schwerpunkte:

- MediaWiki-Beratung
- MediaWiki-Entwicklung
- Wikimedia Commons-Fotograf
- Wikipedia-Autor
  
- OpenStreetMap-Mapper





# Zahlen, Daten, Fakten



- Fünftgrößte Webseite der Welt
- über 270 Sprachen (inkl. Inkubator-Wiki)
- Software: MediaWiki (Open Source)
- (Apache, MySQL, PHP)



# Schriftsysteme



Wikipedia

ወክፔዲያ

ويكيبيديا

موسوعة

विश्वकोश \_ मञ्च

위키백과 : 대문

メインページ

ሶኖርኒረኅሀፕሪቦ

◁ ∩ ▷ ∞ ∫ Δ < ▷ Δ ρ ∧ ∩ ▷

دَرِ بُعْرُ





# Schriftsysteme



- Lösung: Speichern im Unicode-Standard
- UTF-8: 1.114.112 mögliche Zeichen

<https://de.wikipedia.org/wiki/Unicode>

[https://de.wikipedia.org/wiki/Liste\\_der\\_Unicode-Bl%C3%B6cke](https://de.wikipedia.org/wiki/Liste_der_Unicode-Bl%C3%B6cke)



# LTR/RTL




- Links-Rechts-Schriftsysteme  
Lateinisch, Kyrillisch, Griechisch ...
- Rechts-Links-Schriftsysteme  
Arabisch, Hebräisch ...
- CSS-Janus-Transformation





# LTR/RTL





**WIKIMEDIA COMMONS**

Hauptseite  
Willkommen  
Gemeinschaftsportal  
Forum für Fragen

▼ Mitmachen  
Datei hochladen  
Letzte Änderungen  
Neue Dateien  
Zufällige Datei  
Hilfe  
Kontakt  
Spenden

▼ Werkzeuge  
Links auf diese Seite  
Änderungen an verlinkten Seiten  
Spezialseiten  
Druckversion  
Permanenter Link  
Seite zitieren  
Sum-it-up  
Unterseiten

Raymond [Eigene Diskussion](#) [Einstellungen](#) [Beobachtungsliste](#) [Eigene Beiträge](#) [Abmelden](#)


Hauptseite [Diskussion](#) [Lesen](#) [Bearbeiten](#) [Versionsgeschichte](#) [Suche](#)

**Welcome to Wikimedia Commons,**  
a database of 11,326,276 freely usable media files to which anyone can contribute.

[Nature](#) [Science](#) [Society](#)  
[Images](#) [Sounds](#) [Videos](#)

### Picture of the day

**Picture of the day**

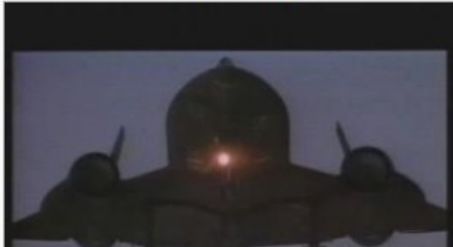


A high resolution image of the rear side of Leeds Castle in Kent, England, showing the moat structure.


[RSS feed](#) · [By email](#) · [Other Featured pictures](#)

### Media of the day

**Media of the day**



### Contribution by the National Archives and Records Administration




The [National Archives and Records Administration](#) has contributed over 100,000 historical photographs and documents from their archives.

We can use your help categorizing the images. You can read more about how to help [here](#).

See also: [Commons:Partnerships](#)

### Wiki Loves Monuments



[Wiki Loves Monuments](#) is a public photo contest around cultural heritage, in fourteen European countries.

Everyone is invited to upload images of monumental objects under a free license for usage on Wikipedia.

### Highlights

If you are browsing Commons for the first time, you may want to start with [Featured pictures](#), [Quality images](#) or [Valued images](#). You can also see some work created by





# LTR/RTL



Raymond דף השיחה שלי · ההעדפות שלי · רשימת המעקב שלי · התרומות שלי · יציאה מהחשבון


חיפוש  עמוד ראשי שיחה קריאה עריכה הצגת היסטוריה

**Welcome to Wikimedia Commons,** a database of 11,326,300 freely usable media files to which anyone can contribute.

[Nature](#) [Science](#) [Society](#) [Images](#) [Sounds](#) [Videos](#)

**Picture of the day**

Picture of the day




A high resolution image of the rear side of Leeds Castle in Kent, England, showing the moat structure.


[RSS feed](#) · [By email](#) · [Other Featured pictures](#)

**Media of the day**

Media of the day



**Contribution by the National Archives and Records Administration**




The National Archives and Records Administration has contributed over 100,000 historical photographs and documents from their archives.

We can use your help categorizing the images. You can read more about how to help [here](#).

See also: [Commons:Partnerships](#)

**Wiki Loves Monuments**



Wiki Loves Monuments is a public photo contest around cultural heritage, in fourteen European countries.

Everyone is invited to upload images of monumental objects under a free license for usage on Wikipedia.

**Highlights**

If you are browsing Commons for the first time, you may want to start with [Featured pictures](#), [Quality images](#) or [Valued images](#). You can also see some work created by

**WIKIMEDIA COMMONS**

עמוד ראשי  
ברוכים הבאים  
שער הקהילה  
מזנון

השתתפו  
העלאה  
שינויים אחרונים  
קבצים חדשים  
קובץ אקראי  
עזרה  
צרו קשר  
תרמו לוויקישיתוף

תיבת כלים  
דפים המקושרים לכאן  
שינויים בדפים המקושרים  
דפים מיוחדים  
גרסת הדפסה  
קישור קבוע  
ציטוט דף זה  
Sum-it-up  
דפי משנה





# LTR/RTL



Kirw / Tirkelgi jasaw



- Basti bet
- Qawım portali
- Aǵımdaǵı oqıǵalar
- Jwıqtaǵı ózgerister
- Kezdeýsoq bet
- Anıqtama
- Demew berw

- Quraldar
  - Mında silteýtin better
  - Qatıstı ózgerister
  - Arnaýı better
  - Basıp şıǵarw úşin
  - Turaqtı silteme
- Basqa tilderde
  - العربية
  - Azərbaycanca
  - Башҡортса
  - Български

Basti bet Talqılaw Оқы Qaуnar kózin qaraw Тарихы Search

- Кирил
- Latin
- تونه



Wikipediyaǵa do... Qazaqstan Tarix Qoǵam

Bul kez kelgen adam erkin ófideý... Qazir qazaq tilinde 79 738 ma...

Maqala bastaw

Basqa portaldar

Transliteration auf Kyrillisch und Arabisch

**Tañdawlı maqala**

**Mançester YUnaýted** — Ülken

Mançester graftıǵına (feodaldıq iyelik) kiretin Stretford qalasınıñ aǵılşın kásibi fwtbol klwbi. 1878 j. alǵaş qurılǵan kezinde atawı «N'yuton Xit (Lankaşır énd Ýorkşır Reýlwéy)» bolǵan, keyinirek 1902 j. «Mançester YUnaýted»-ke ózgerdi. Álemdegi eñ áygili fwtbol klwbtarınıñ qatarına kiredi. 1992 j. aǵılşın Prem'yer-lıgasınıñ negizin salǵan klwbtarđıń biri.



**Janalıqtar**

- Apple korporaciyasınıñ negizin qalawşı jáne direktorlar keñesiniñ tóraǵası Stiv Djobs qaýtıs boldı.
- Birikken Ulttar Uýmınıñ Qawipsizdik keñesinen Sırıyanı jazalaw rezolyuciyası ótpeý qaldı. Oǵan Resey men Qıtay vetoliq quqıǵın paýdalanıp, qarsı dawıs bergen.
- Franciya astanası Parijde «Top Reza» degen





# LTR/RTL



Кіру / Тіркепгі жасау

Басты бет Тапқылау

Оқу Қайнар көзін қарау Тарихы

Іздеу



Wiki-السياق وتنب ال



Уикипедия  
Ашық энциклопедиясы

Басты бет

Қауым порталы

Ағымдағы оқиғалар

Жуықтағы өзгерістер

Кездейсоқ бет

Анықтама

Демеу беру

Құралдар

Мұнда сілтейтін беттер

Қатысты өзгерістер

Арнайы беттер

Басып шығару үшін

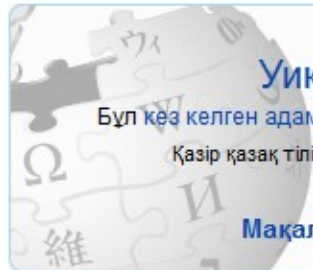
Тұрақты сілтеме

Басқа тілдерде

العربية

Azərbaycanca

Башҡортса



## Уикипедияға қош келдіңіз!

Бұл көз келген адам еркін өңдей алатын ашық және тегін энциклопедия.

Қазір қазақ тілінде 79 738 мақала бар. Қатысушылар: 1 879.

Мақала бастау

Анықтама

Санаттар

БАҚ және Уикипедия

Қазақстан Тарих

Қоғам

Тұлғалар

Математика Техника

География Ғылым

Ислам

Әдебиет

Спорт

Басқа порталдар



### Таңдаулы мақала

**Манчестер Юнайтед** — Үлкен

Манчестер графтығына (феодалдық иелік) кіретін Стретфорд қаласының ағылшын кәсіби футбол клубы. 1878 ж. алғаш құрылған кезінде атауы «Ньютон Хит (Ланкашир энд Йоркшир Рейлуэй)» болған, кейінірек 1902 ж. «Манчестер Юнайтед»-ке өзгерді. Әлемдегі ең әйгілі футбол клубтарының қатарына кіреді. 1992



Drop image file

Identischer Inhalt in kyrillischer Schrift

- Ақпараттың қорықталуы қорғаныс қабілетін арттырады. Қорғаныс қабілеті жоғалған кезде қайтыс болды.
- Біріккен Ұлттар Ұйымының Қауіпсіздік кеңесінен Сирияны жазалау резолюциясы өтпей қалды. Оған Ресей мен Қытай ветолық құқығын пайдаланып, қарсы дауыс







# Oben-Unten-Schrift



Das kann MediaWiki noch nicht: Oben-nach-Unten-Schrift wie im Japanischen



# Mathematische Formeln



- Texvc (*TeX validator and converter*)
- Eingabeformat:  
LaTeX
- Ausgabeformate:  
HTML, MathML, PNG-Grafiken
- MediaWiki-Extension: Math  
<https://www.mediawiki.org/wiki/Math>



# Mathematische Formeln



Wikisource navigation: Seite, Diskussion, Scan, Versionsgeschichte, Suche

**Seite:Carl Gottfried Neumann - Die elektrischen Kräfte 140.jpg**

**Carl Gottfried Neumann: Die elektrischen Kräfte**

**Fertig.** Dieser Text wurde zweimal anhand der Quelle korrekturgelesen. Die Schreibweise folgt dem Originaltext.

122 Die elektromotorischen Kräfte eldy. Ursprungs für

Wenden wir uns nun endlich zu den beiden mit einander zu vergleichenden Ausdrücken. Der e i n e derselben (20.) lautet

(29.)  $\mathfrak{E}dt = Ds_1 \cdot J_1(Kdr + Ld\Theta + Md\Theta_1 + NdE) + Ds_1 \cdot (dJ_1)O;$

während der a n d e r e (26.) unter Rücksicht auf (28.a,b,c,d,e) in folgender Weise sich darstellt:

(30.) 
$$\mathfrak{E}dt = Ds_1 \cdot J_1 \left\{ \begin{array}{l} \left( \varkappa\Theta\Theta_1 + \frac{I}{\varkappa} \right) dr + \mu\Theta d\Theta_1 + \frac{I}{\mu} d\Psi \\ + \lambda\Theta_1 d\Theta + \nu dE \end{array} \right\} + Ds_1 \cdot (dJ_1) \left( \omega\Theta\Theta_1 + \frac{I}{\omega} E \right)$$

Beispiel aus Wikisource:  
[https://de.wikisource.org/wiki/Seite:Carl\\_Gottfried\\_Neumann\\_-\\_Die\\_elektrischen\\_Kr%C3%A4fte\\_140.jpg](https://de.wikisource.org/wiki/Seite:Carl_Gottfried_Neumann_-_Die_elektrischen_Kr%C3%A4fte_140.jpg)





# Ägyptische Hieroglyphen



- 2 Methoden, Hieroglyphen zu kodieren:
  - Gardiners Zeichenliste (z. B. A12)
  - Lautwerte (z. B. xA)
- 995 Grafiken
- MediaWiki-Extension: WikiHiero

<http://www.mediawiki.org/wiki/Extension:WikiHiero>



# Ägyptische Hieroglyphen



```
<hiero>sw-di-Htp:t*p i-mn:n:ra*Z1 sw-t:Z1*Z1*Z1 nTr  
ir:st*A40</hiero>
```

```
<hiero>i-n:p*w nb:tA:Dsr O10 Hr:tp R19 t:O49 nTr-nTr</hiero>
```

```
<hiero>Hr:Z1 R2 =z:n:Z2 Szp:p:D40 z:n:nw*D19:N18  
pr:r:t*D54</hiero>
```



Screenshot: [https://de.wikipedia.org/wiki/%C3%84gyptische\\_Hieroglyphen#In\\_der\\_elektronischen\\_Datenverarbeitung](https://de.wikipedia.org/wiki/%C3%84gyptische_Hieroglyphen#In_der_elektronischen_Datenverarbeitung)



# Zeitleisten



- Darstellung von zeitlichen Verläufen
- MediaWiki-Extension: EasyTimeline

<https://www.mediawiki.org/wiki/Extension:EasyTimeline>

- Wikipedia-Anleitung:

<https://de.wikipedia.org/wiki/Hilfe:Zeitleisten>

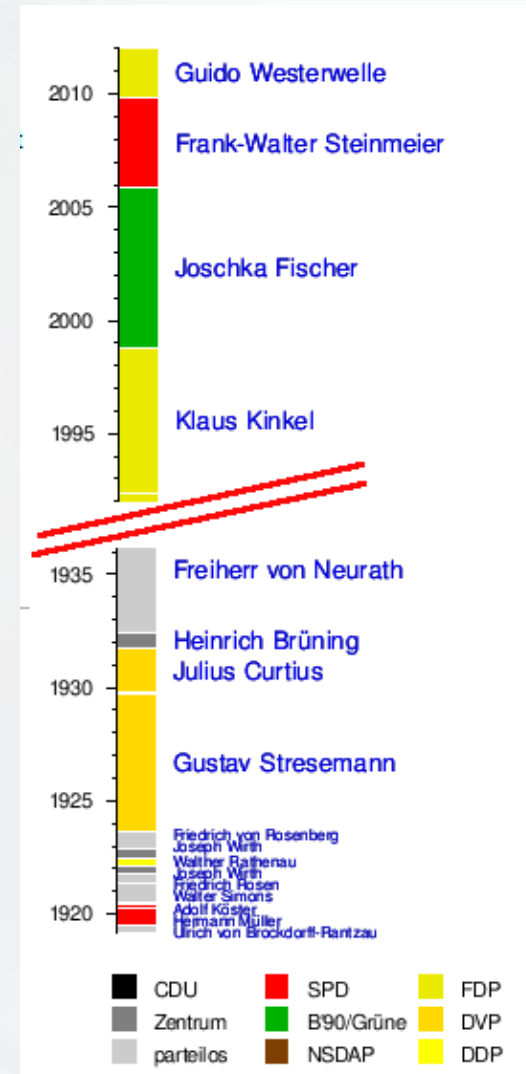


# Zeitleisten



→ Beispiel: Wikipedia-Artikel  
„Auswärtiges Amt“

[https://de.wikipedia.org/wiki/Ausw%C3%A4rtiges\\_Amt](https://de.wikipedia.org/wiki/Ausw%C3%A4rtiges_Amt)





# Zeicheneingabe



- Eingabe von nicht-lateinischen Schriftarten
- Problem: Tastatur mit lateinischen Buchstaben
- MediaWiki-Extension: Narayam

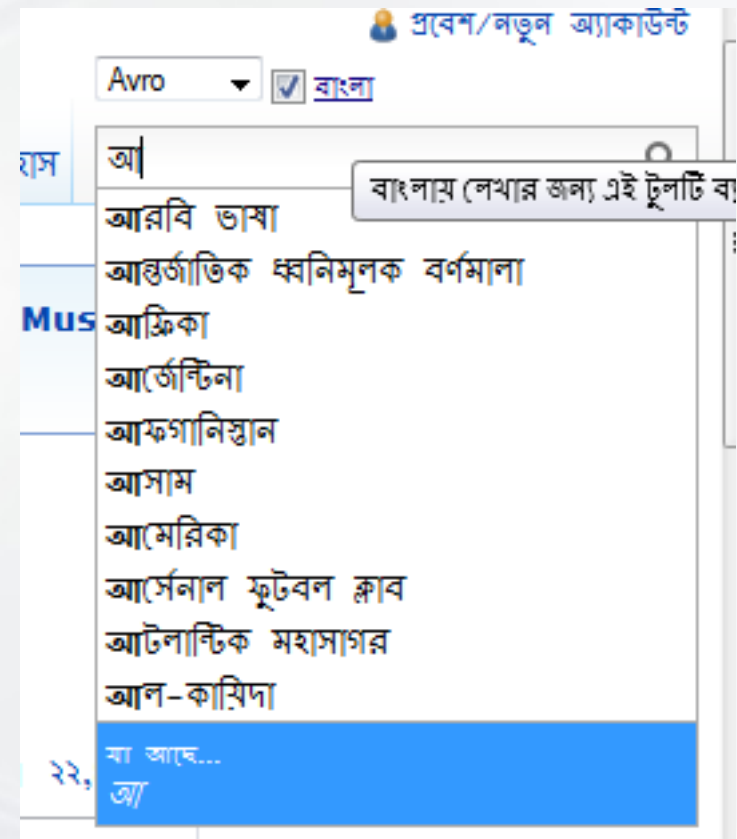
<http://www.mediawiki.org/wiki/Extension:Narayam>



# Zeicheneingabe



Eingabe bengalischer  
Schriftzeiten  
Methode: Avro

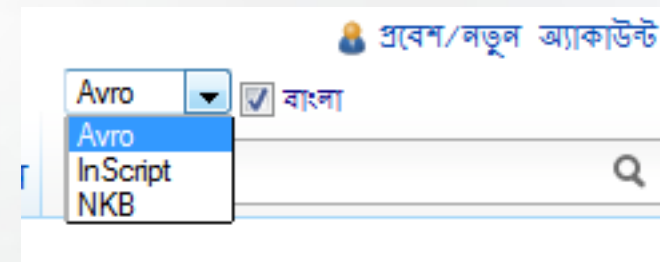




# Zeicheneingabe



Zur Verfügung  
stehende Methoden:  
Avro, InScript, NKB





# Fehlende Schriften



- Problem: Nicht jeder Browser/jedes Betriebssystem hat vollständige/gute Fonts installiert
- Lösung: freie Webfonts
- MediaWiki-Extension: WebFonts  
<http://www.mediawiki.org/wiki/Extension:WebFonts>
- Auf Wikipedia in Kürze verfügbar





# Musiknoten



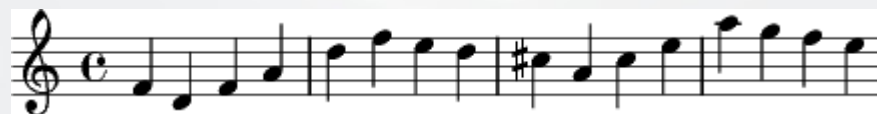
- Problem: Darstellung von Musiknoten
- Lösung: LilyPond
- MediaWiki-Extension: LilyPond  
<http://www.mediawiki.org/wiki/Extension:LilyPond>
- Auf Wikipedia nicht verfügbar (Performance-/Lastprobleme befürchtet)



# Musiknoten



```
<lilypond>\relative c' { f d f a d f e d cis a cis e a g f e }</lilypond>
```





# Bildnachweis



Januskopf: Loudon dodd / cc-by-sa-3.0

<https://commons.wikimedia.org/wiki/File:Janus1.JPG>

Japanische Seite: 不明 / gemeinfrei nach japanischem Urheberrecht, siehe

[https://commons.wikimedia.org/wiki/File:RIKEN\\_VITAMIN.png](https://commons.wikimedia.org/wiki/File:RIKEN_VITAMIN.png)

Lizenz dieser Präsentation:

[CC-by-SA-3.0/de](https://creativecommons.org/licenses/by-sa/3.0/de/)



# Union der deutschen Akademien

## 12. Oktober 2011



## Danke für Ihre Aufmerksamkeit

Fragen & Anregungen:  
[raimond.speking@gmail.com](mailto:raimond.speking@gmail.com)

Folien zum Nachlesen:  
<http://www.mediawiki-beratung.de/docs/Zeichenprobleme.pdf>

Lizenz dieser Präsentation:  
[CC-by-SA-3.0/de](https://creativecommons.org/licenses/by-sa/3.0/de/)