



Arabic Proofing Tools

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We offer the world's most comprehensive set of integrated Arabic proofing tools, designed to provide the user with everything necessary to confidently work with Arabic text, including a grammar checker, spelling checker, thesaurus, and dictionary. Representing our core products, these tools are so intuitive and effective Microsoft has been using them exclusively in Office applications since 1997.

What makes our proofing tool set so effective is our sophisticated, proprietary linguistic processing technology developed over the past decade, coupled with our single, comprehensive lexical database which guarantees consistency and accuracy. Despite the complexity of Arabic – considered the world's most linguistically sophisticated language – our lexicon is only 1 MB big, yet it contains over 200,000 unique entries that generate over 30 million full words.

ARTS Arabic Thesaurus

The first reliable Arabic thesaurus, ARTS introduces new concepts enabling the proper processing of synonyms, antonyms, and related meanings through our unique Word Identifier methodology. At the heart of this unique thesaurus is our proprietary advanced intelligent engine for word analysis and production, generating the most comprehensive results possible.

- Easily handles Modern Arabic word pragmatics
- Intelligent word analysis engine yields all appropriate target words, not just synonyms and antonyms
- Uses the same massive lexicon as our other proofing tools for consistency and accuracy

"Microsoft has been licensing Arabic technologies from COLTEC for more than a decade: the quality of their products is a true reflection of the company's first-class position and innovation in the field of Arabic computational linguistics & Natural Language Processing."

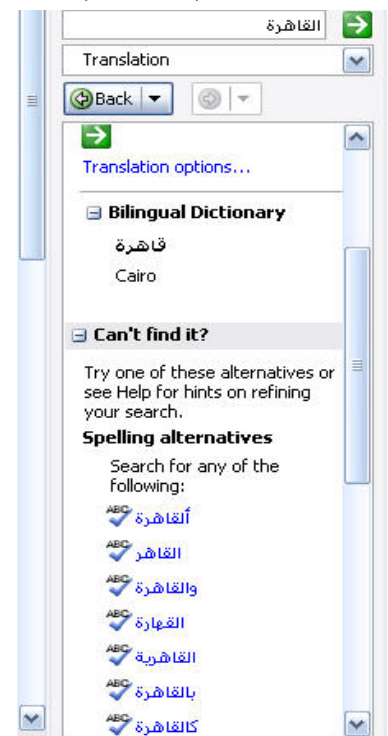
*Andy Abbar
Microsoft, Director International Strategic Initiatives,
Europe, Middle East and Africa (EMEA) HQ*

MULDIC – Multiple Language Dictionary

Translating words in Arabic is complicated business. A single Arabic word often corresponds to a phrase or even an entire sentence in English. Add in orthography, vowelization, and morphology and a single written word can generate as many as twenty or more different correct words. Our new Natural Language Processing (NLP) technology offers unparalleled translation speed and precision, analyzing the source word and its context to generate the most appropriate results, not just a word-to-word dictionary look-up.

More sophisticated than traditional multilingual dictionaries, MULDIC offers fast bi-directional translation between Arabic, English, and French, with the flexibility to add as many other languages as necessary to meet your needs.

- Guaranteed most complete and accurate translation available
- Morpho-conceptual engine looks at the structure of the word to cover all possible inflections, derivations, and combinations without redundancy
- Prefixes and suffixes are retained to avoid incorrect translations
- Single Arabic word translation will yield full phrases or sentences where necessary



Translating tool interface



Arabic Proofing Tools

ARWOC – Word Corrector

ARWOC is the fastest, most advanced word correction system in the world. More than just a spelling checker, ARWOC actually corrects words based on their proper Arabic structure and our advanced Natural Language Processing methodology, correcting all types of word errors, including missed or extra spaces. ARWOC features the world's most comprehensive lexicon which includes standard modern Arabic words, coined words, "loaned" words, and proper nouns.

Perhaps one of the most valuable components is the ability to suggest correct alternatives to wrongly written words based on statistical and linguistic error analysis factors – this virtually guarantees correcting a wrong word error in the first five suggestions.

- Corrects single words as well as complete documents
- Automatically corrects repetitive errors
- Checks spelling in three different writing modes:
 - Exact** – checked for correctness exactly as the user enters it
 - Relaxed** – checked using different linguistically acceptable variations of each word
 - Common Error** – checked to include correct and accepted forms as well as common misspellings
- Classifies corrections in groups, with 80% of the most common errors in the first group for faster, more accurate results
- Custom, user-industry-specific dictionaries can be easily added



Spell-checking

AGRAC – Arabic Grammar Checker

Accurately processing Arabic grammar for Western language use presents enormous challenges. After spending a decade developing our proprietary Natural Language Processing system, we have created the most accurate and reliable grammar checker available today. This is the first grammar checker that enables users to properly process modern standard Arabic, based on a syntactic model that was designed and built using our own comprehensive corpus. For faster, easier grammar checking and revisions, AGRAC automatically corrects common grammatical mistakes.



Spelling and grammar checking

- Defines sentence boundaries and type
- Processes sentences up to 50 words
- Defines syntactic and functional phrase relationships in a sentence
- Considers all possible parsers and retains only correct ones
- Activates DYSIS (Disambiguation system) automatically, then interactively
- Checks the syntactic structural rules
- Activates the sentence correction engine when needed
- Accepts special application customization

Our platform-independent proofing tools offer unparalleled flexibility and versatility for Windows, Macintosh, or Linux OS's. Used as plug-in modules for larger applications or as stand-alone end-user apps, our proofing tools are ideal for a wide variety of uses – proofing text documents, spell-checking Web-based e-mails during or after writing, reviewing and proofing editorial content for hardcopy and online publications prior to uploading or printing. All Coltec proofing tools are available individually or in an integrated set as an SDK or DLL and can be customized according to your application's API.

