

# National Toponym Database

A Joint Initiative of the  
UN Group of Experts on Geographical Names

and the

ICT, Science and Technology Division  
UN Economic Commission for Africa

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## Motivation

- ▶ Desk research suggests demand from a niche market for the maintenance of geographical names in a formal database solution.
- ▶ However, no tool, application, or suite exists to meet this demand.
- ▶ There exists a few application-specific tools (e.g., Mozambique) but no standardized platform that can interoperate globally is available.

# Genesis

- ▶ The UN Economic Commission for Africa (ECA) was engaged by the Ethiopian Mapping Authority (EMA) to migrate the Ethiopian National Gazetteer from Excel-based spreadsheets to a formal solution, branded 'EthioGaz.'
- ▶ ECA developed this intranet-based multi-user application with a rich graphical interface using an industry-standard backend relational database.
- ▶ The initial strength and success of the application stemmed from greatly streamlined business processes (efficiency) and reduced data entry and transcription errors (accuracy).

## Version 2

- ▶ With interest from other African member States and UNGEGN, ECA is rearchitecting EthioGaz so that it is generic to support the needs of any member State.
- ▶ No decisions on branding have yet been made, but the beta application is named 'UNGaz' in the interim.

# Functionality (1)

- ▶ Key functionality and features will include the following:
  - desktop application requiring only occasional connections to the internet;
  - specifically designed to support low bandwidth connections;
  - rich Web 2.0 graphical user interface;
  - platform neutral: will deploy on Windows, MacIntosh, Linux, Unix, and Solaris;
  - completely open source and available at no charge to member States;

# Functionality (2)

- will have portal-like features, including news feeds from the UNGEGN Secretariat;
- national databases, if so enabled by national authorities, feed toponyms to a globally synthetic database;
- supports the storage of rich media content, including sound files (for pronunciation of toponyms), images, and even video;
- supports the capture of both endonyms and exonyms;
- full metadata capture (who is entering toponyms and when, and who is editing those records and when);

# Functionality (3)

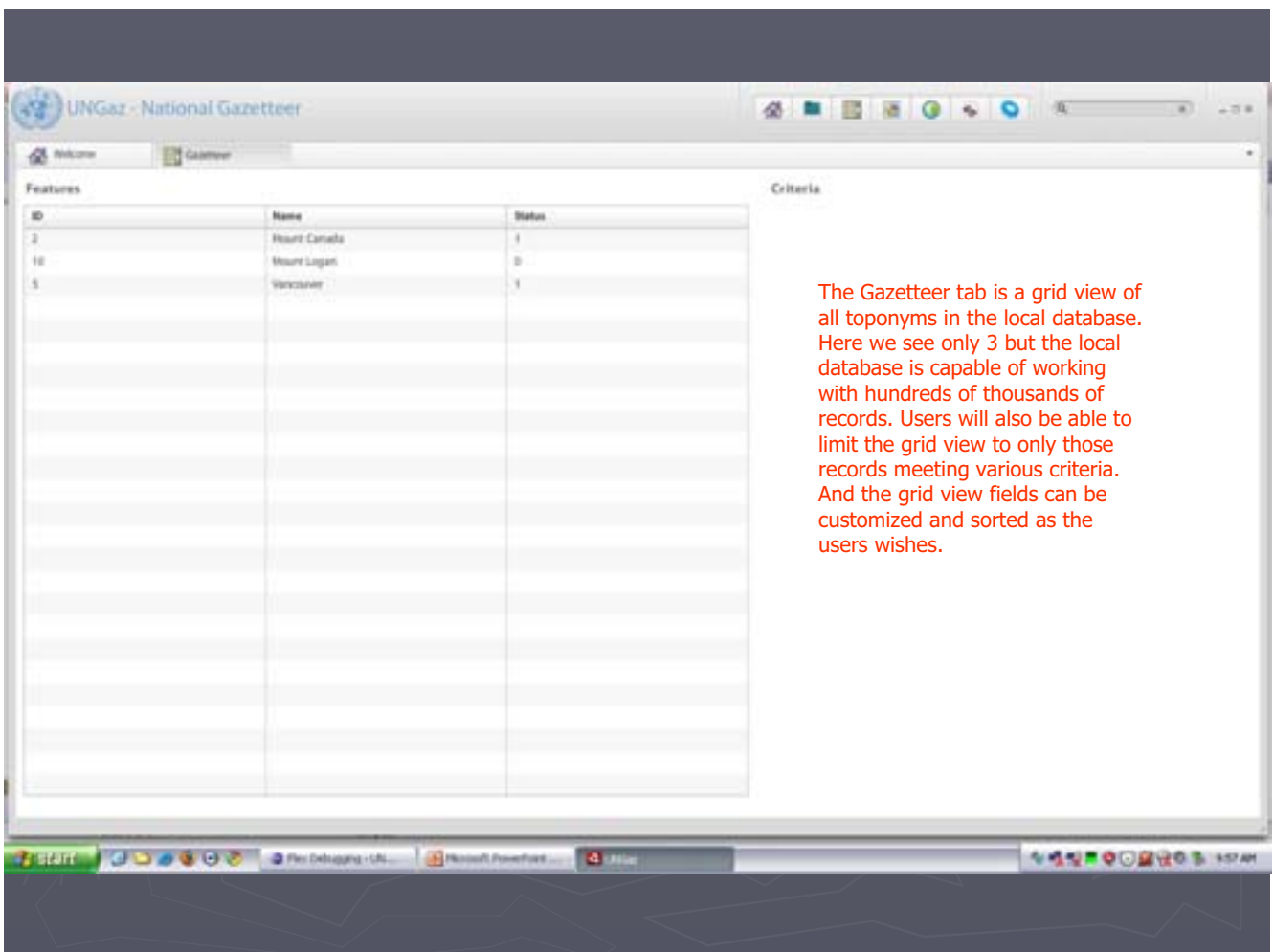
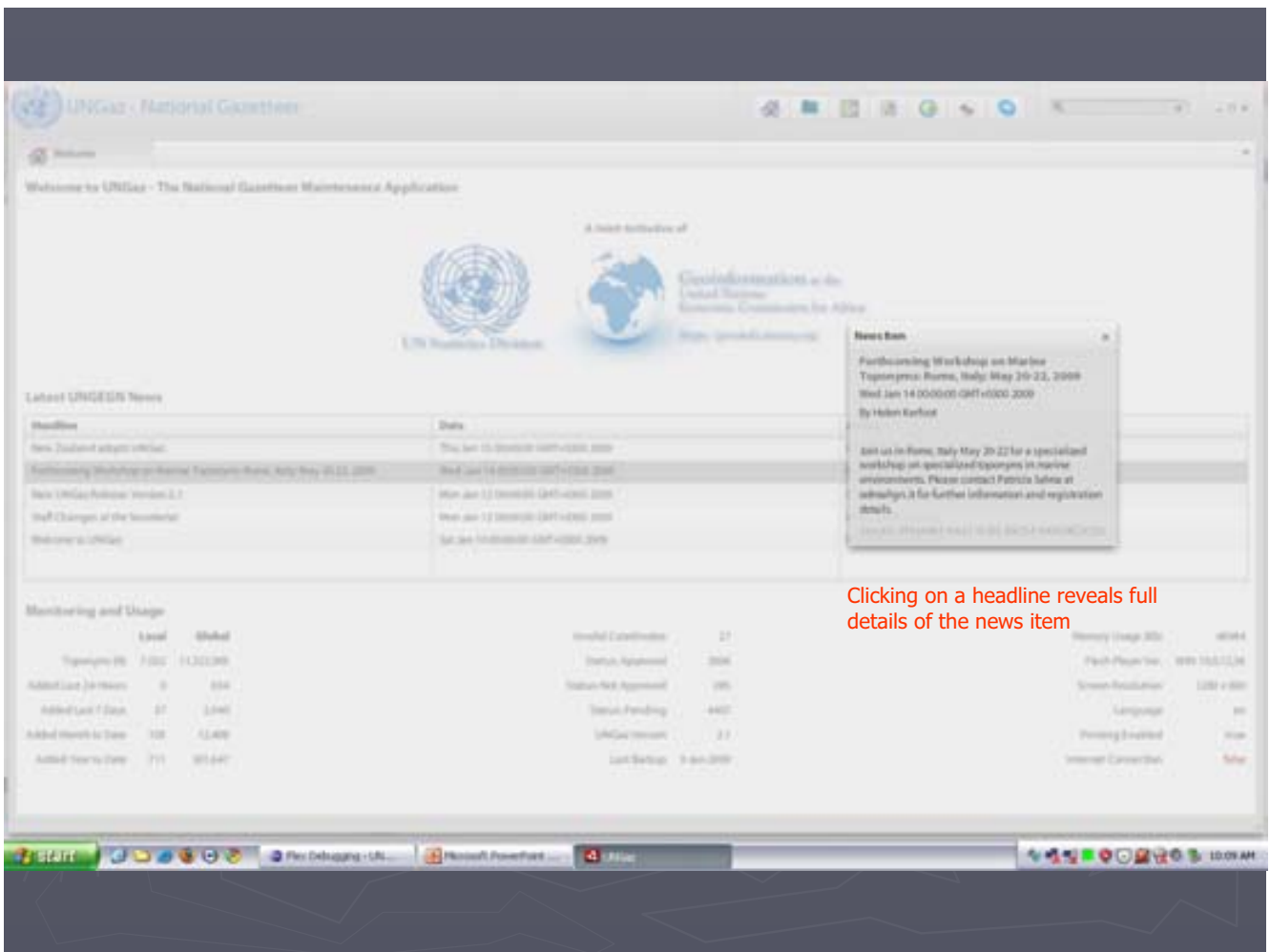
- geocoding of geographical names can be manually entered or efficiently captured from Google Maps coordinates;
- supports all well-known coordinate systems;
- includes a rich charts and graphs module to illustrate frequency distributions by feature type, approval status, data entry over time, etc.;
- ability to generate PDF reports from the database; and
- import/export capabilities.

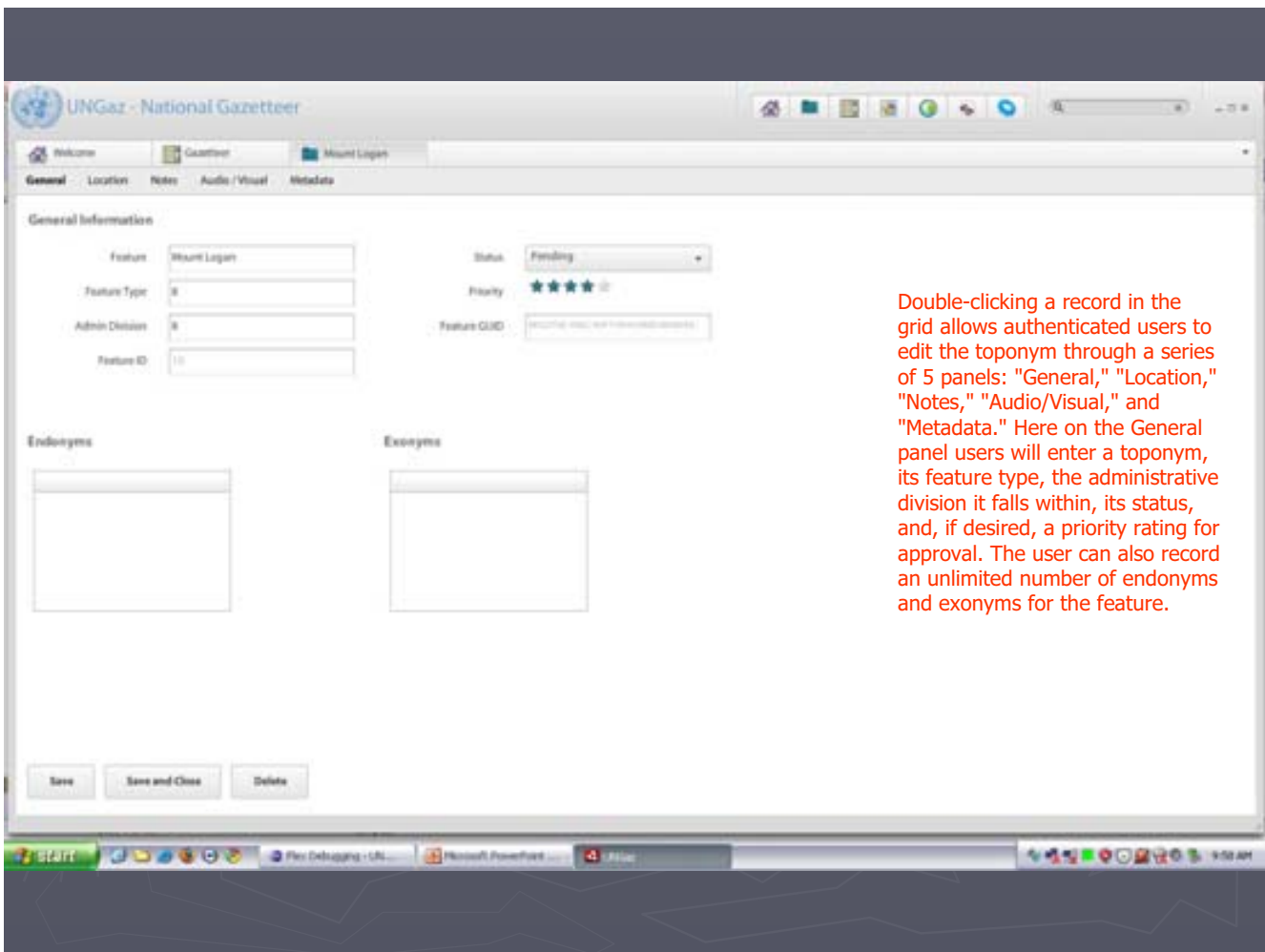
## Screenshots from Version 2

When internet connected, the news panel is updated from the UNGEGN Secretariat

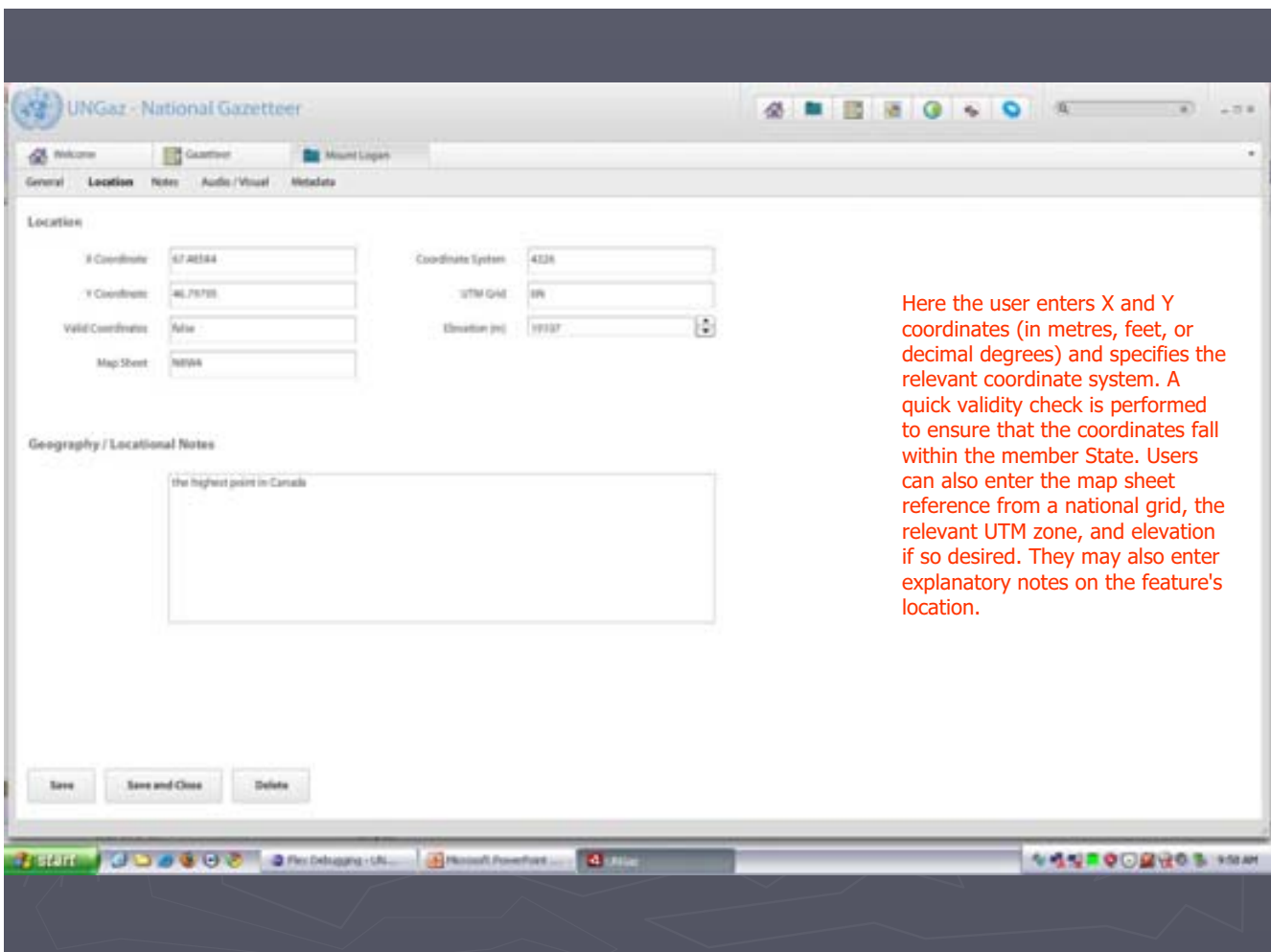
Headline	Date	Author
New Zealand adopts UNGaz	Thu Jan 15 00:00:00 GMT+0300 2009	UNGEON Secretariat
Forthcoming Workshop on Marine Toponyms, Rome, Italy, May 20-22, 2009	Wed Jan 14 00:00:00 GMT+0300 2009	Helen Kerfoot
New UNGaz Release Version 2.1	Mon Jan 12 00:00:00 GMT+0300 2009	UNGEON
Staff Changes at the Secretariat	Mon Jan 12 00:00:00 GMT+0300 2009	UNGEON Secretariat
Welcome to UNGaz	Sat Jan 10 00:00:00 GMT+0300 2009	UNGEON Secretariat

Local		Global	Invalid Coordinates		Memory Usage (KB)
Toponyms (k)	7,032	11,122,905		27	27752
Added Last 24 Hours	0	634	Status Approved	3006	Flash-Player Ver. WW 102,12,34
Added Last 7 Days	37	2,840	Status Not Approved	285	Screen Resolution 1280 x 800
Added Month to Date	108	12,488	Status Pending	4407	Language en
Added Year to Date	711	301,647	UNGaz Version	2.1	Printing Enabled true
			Last Backup	9 Jan 2009	Internet Connection false

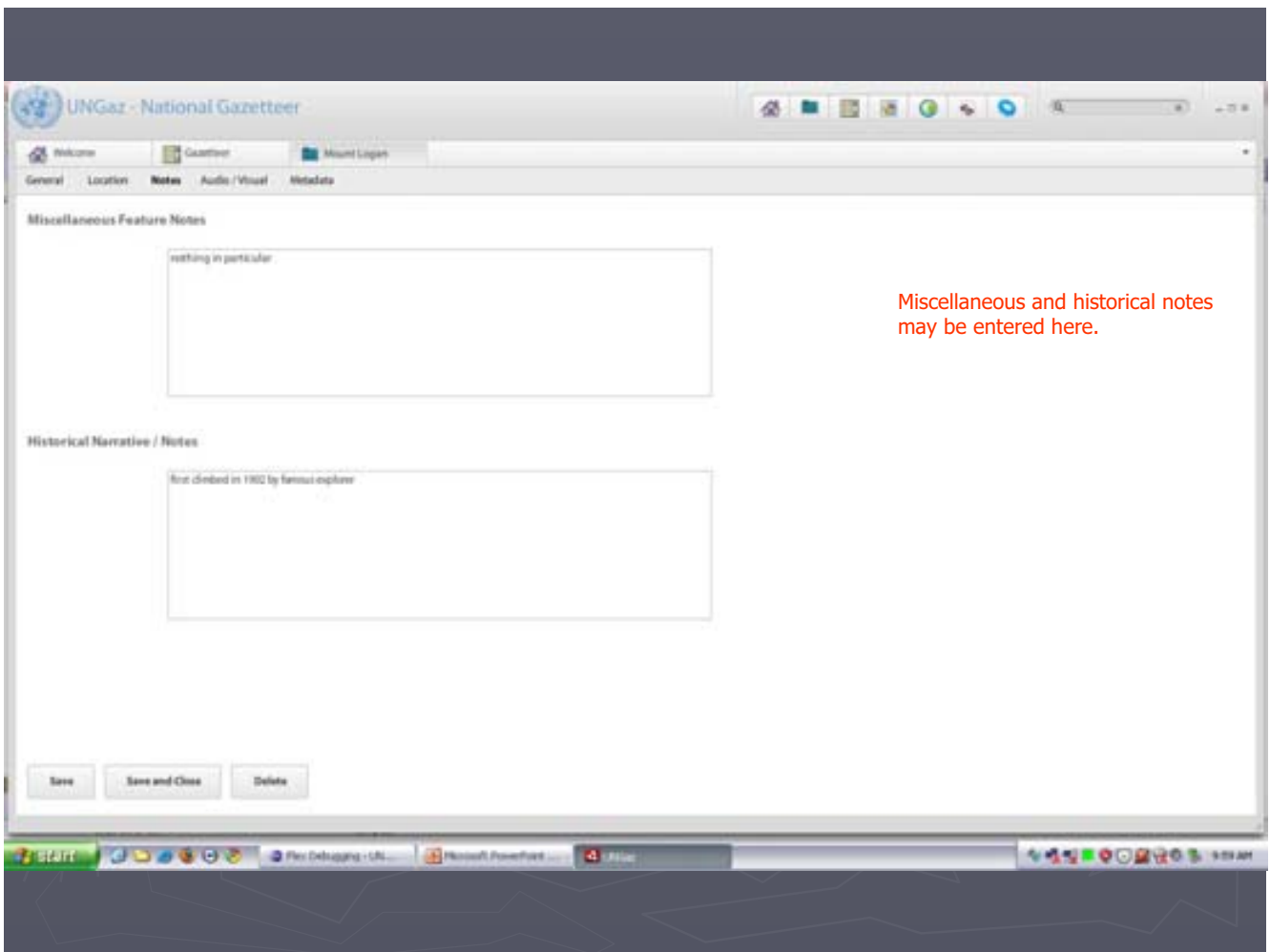




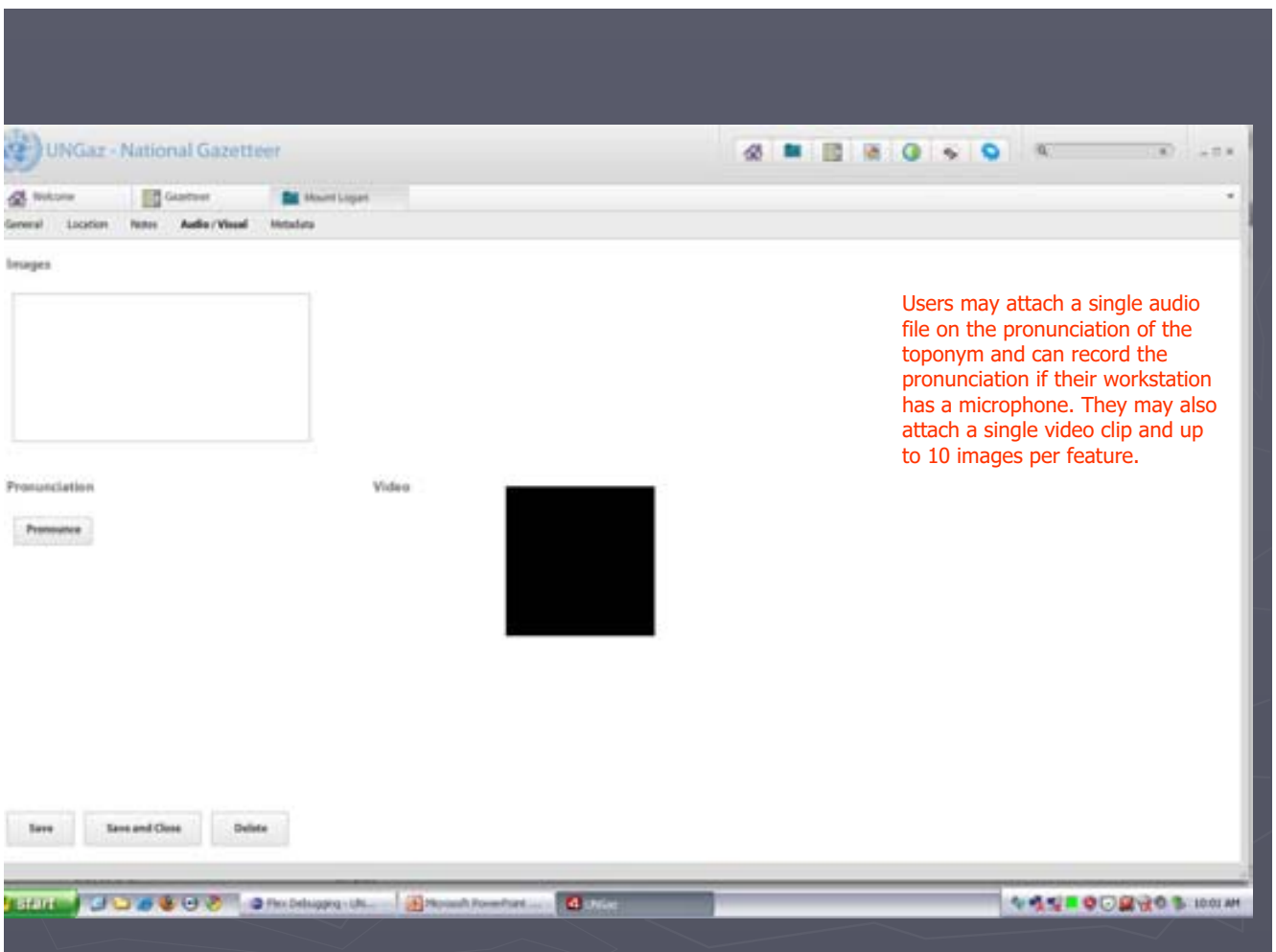
Double-clicking a record in the grid allows authenticated users to edit the toponym through a series of 5 panels: "General," "Location," "Notes," "Audio/Visual," and "Metadata." Here on the General panel users will enter a toponym, its feature type, the administrative division it falls within, its status, and, if desired, a priority rating for approval. The user can also record an unlimited number of endonyms and exonyms for the feature.



Here the user enters X and Y coordinates (in metres, feet, or decimal degrees) and specifies the relevant coordinate system. A quick validity check is performed to ensure that the coordinates fall within the member State. Users can also enter the map sheet reference from a national grid, the relevant UTM zone, and elevation if so desired. They may also enter explanatory notes on the feature's location.

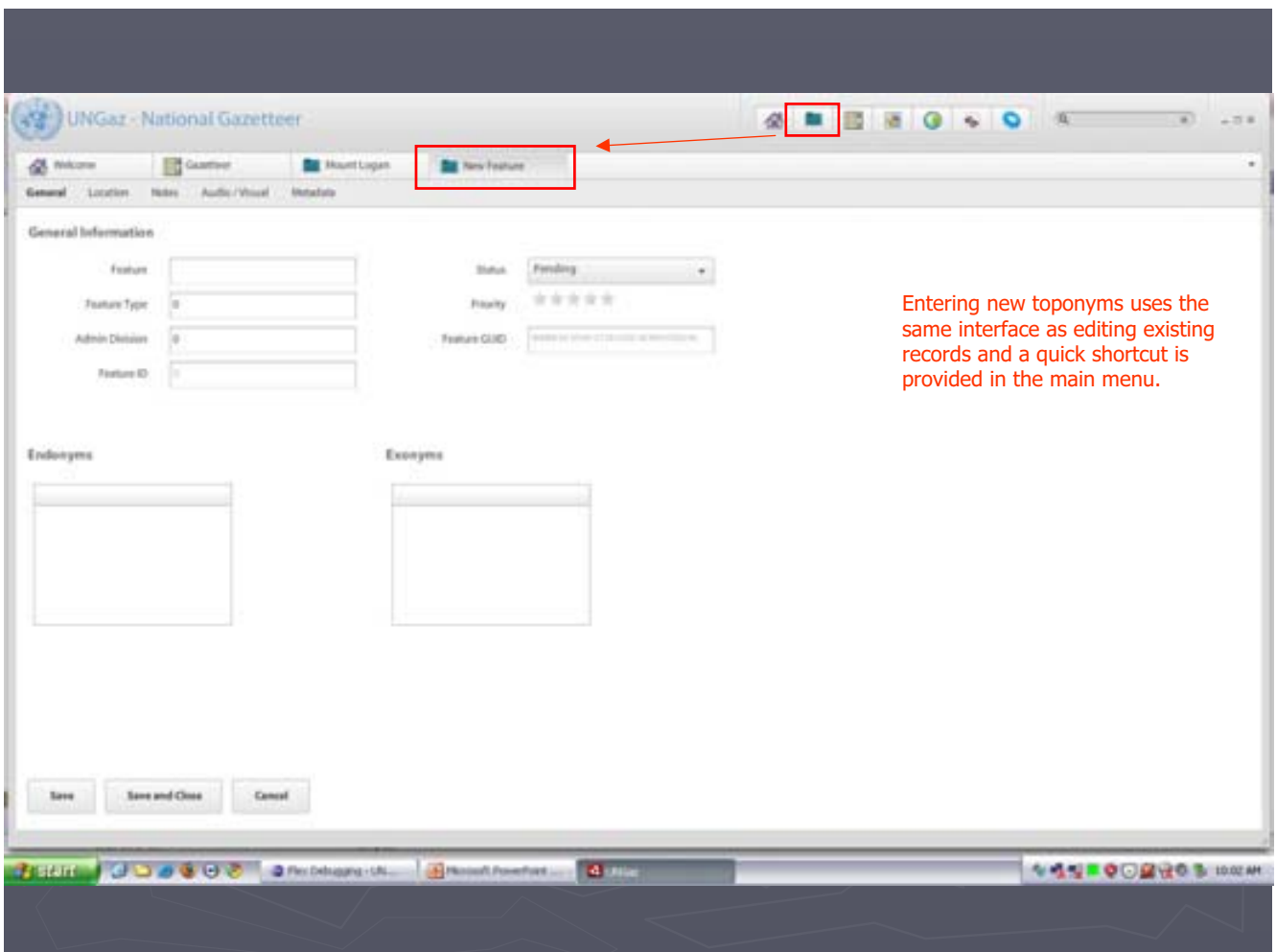
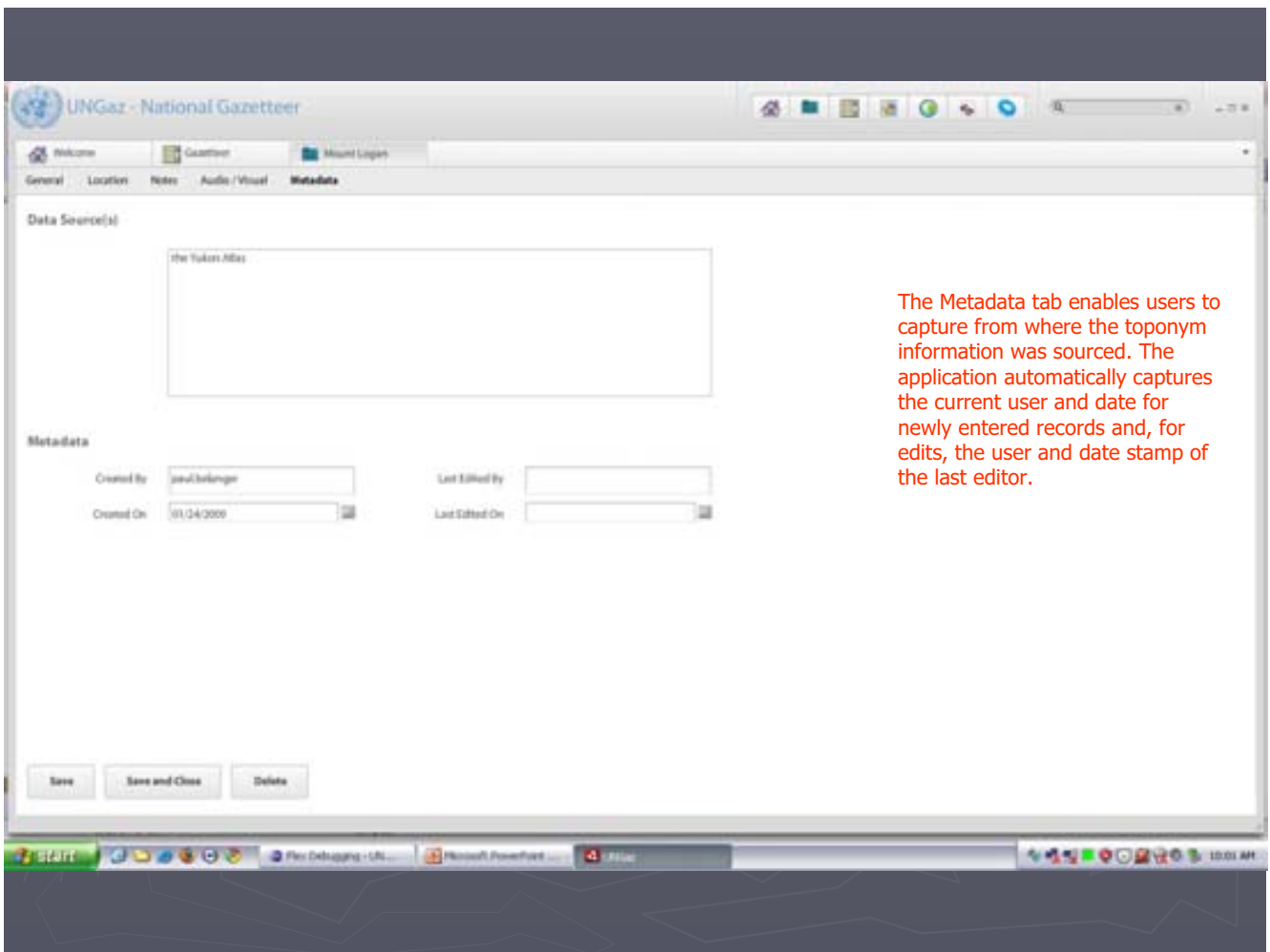


Miscellaneous and historical notes may be entered here.

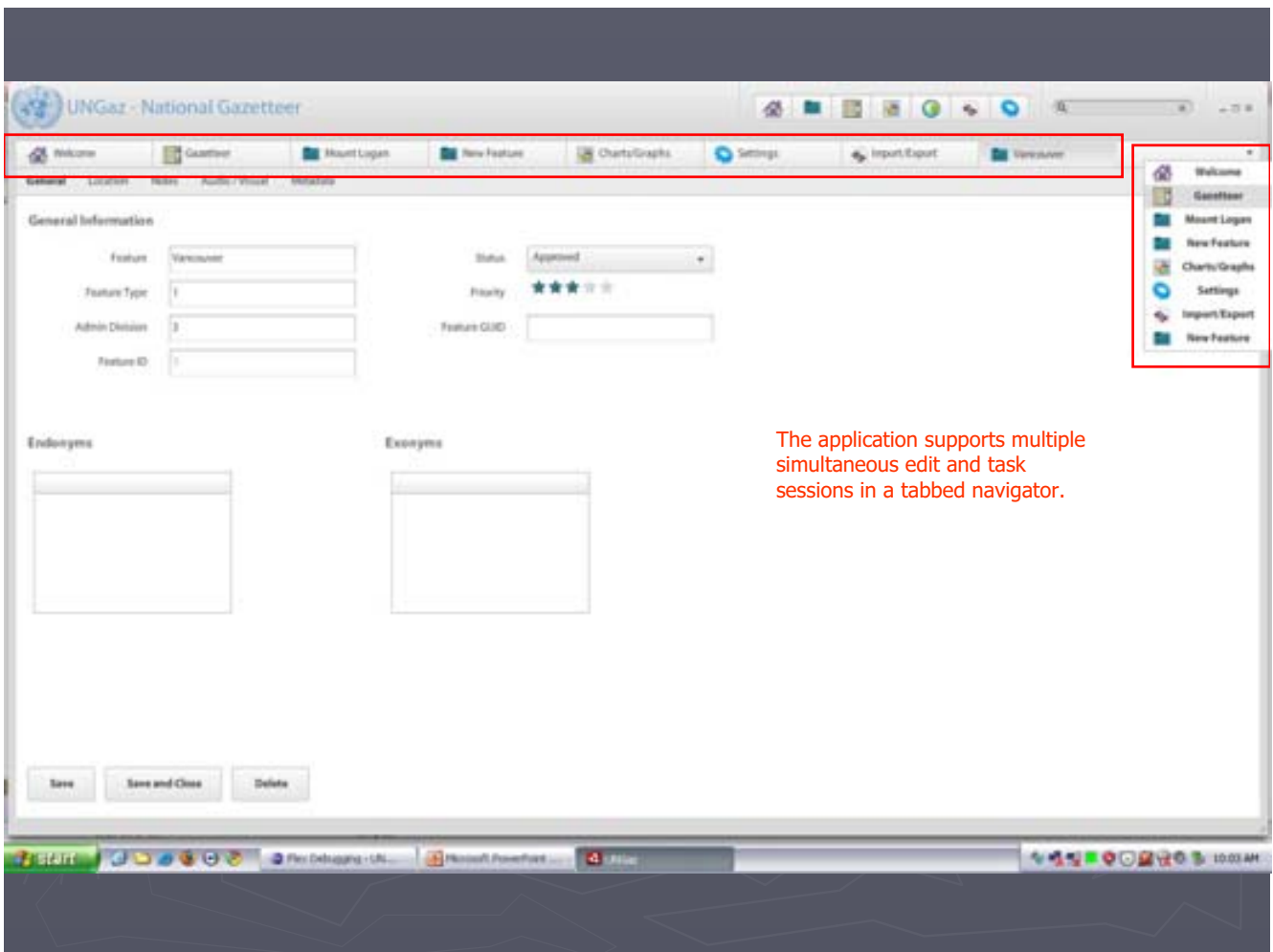


Users may attach a single audio file on the pronunciation of the toponym and can record the pronunciation if their workstation has a microphone. They may also attach a single video clip and up to 10 images per feature.









## Version 3: Future Development

- ▶ Three key features will be released with Version 3, expected in Q4, 2009:
  - support for all six (6) official UN languages, with Version 2 supporting English;
  - support for local multi-user access to a single database; and
  - a local mapping engine as a stand-in for Google Maps when internet connectivity is unavailable.

# Feedback

- ▶ We need your thoughts, comments, and suggestions to ensure that the tool best serves the needs of geographical names authorities worldwide.
- ▶ Please feel free to contact us:
  - Dr. Paul Belanger ([paul.belanger@un.org](mailto:paul.belanger@un.org))
  - Mr. Yacob Zewoldi ([zewoldi@un.org](mailto:zewoldi@un.org))
  - Ms. Helen Kerfoot ([hkerfoot@nrcan.gc.ca](mailto:hkerfoot@nrcan.gc.ca))