



What's new in EMu 3.2.05?

Bernard Marshall
Chief Technology Officer
KE Software



Overview

- Client additions
- Server development
- Web Services
- Miscellaneous client changes
- New technologies



Groups Module

client

- Groups module extended to include:
 - Task management
 - Multimedia attachments
 - Notes
- Administration fields added:
 - Description
 - Purpose
 - Status
- Tailored tabs and reports for *Static*, *Query* and *Terms* groups.



The screenshot shows the 'Groups (1) - Display' window in the EMu software. The window title is 'Groups (1) - Display'. The menu bar includes File, Edit, Select, View, Tools, Tabs, Multimedia, Window, and Help. The toolbar contains various icons for file operations and navigation. The status bar at the top shows '[Static] enarratives, emu : No Narrative Description (45)' and a page number '7'. The main content area is divided into two sections: 'Group Information' and 'Group Type'. The 'Group Information' section includes fields for Name, Description, Purpose, and Status. The 'Group Type' section includes radio buttons for Type (Static, Terms, Query) and a field for Module. The 'Group Owner' section includes fields for User Id and User Name. At the bottom, there is a 'Group' tab bar with buttons for Static, Tasks, Notes, Multimedia, Security, Audit, and Ac. The status bar at the bottom shows 'Display Record 4 of 20', 'emu', and '20136'.

Groups (1) - Display

File Edit Select View Tools Tabs Multimedia Window Help

[Static] enarratives, emu : No Narrative Description (45) 7

Group Information

Name: No Narrative Description

Description: Records that do not contain a narrative description. In order to make the narrative available on the web it is necessary to provide a description.

Purpose: Data Cleanup

Status: Open

Group Type

Type: Static Terms Query

Module: enarratives

Group Owner

User Id: emu

User Name: KE EMu Administrator

Group Static Tasks Notes Multimedia Security Audit Ac

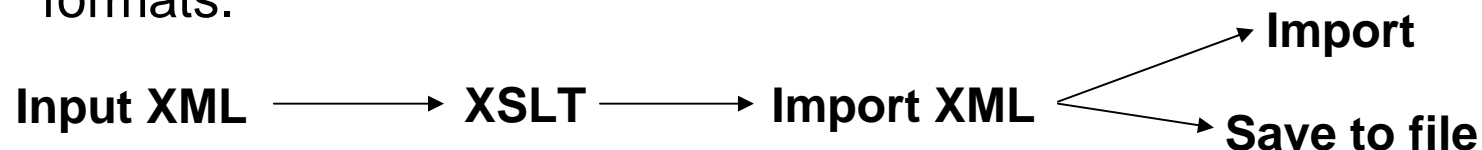
Display Record 4 of 20 emu 20136

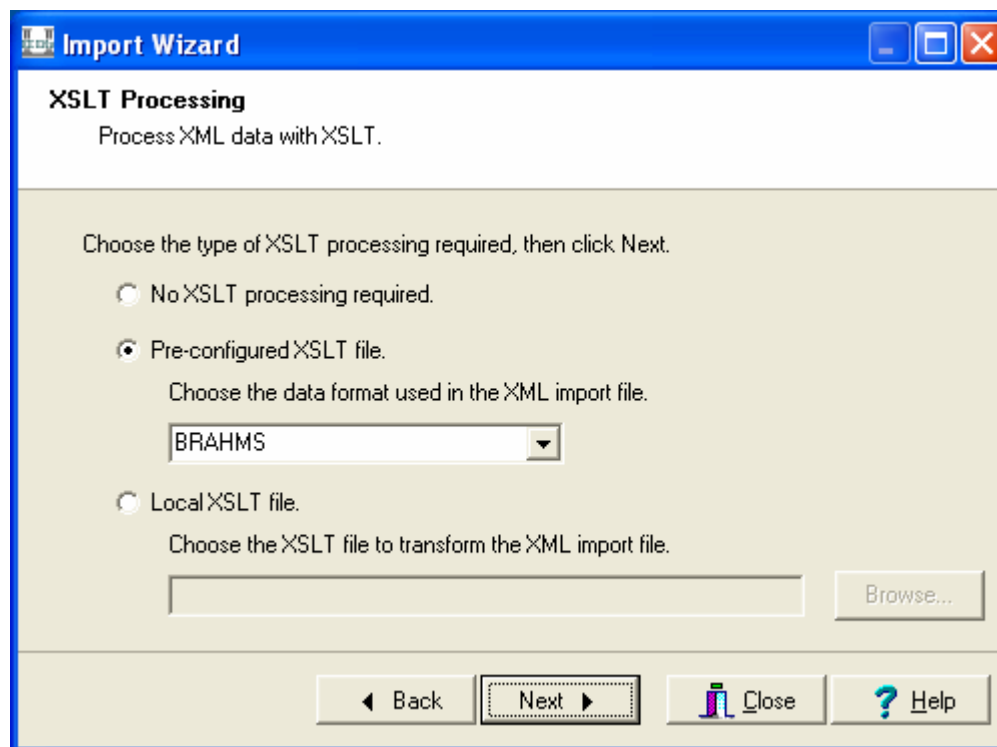


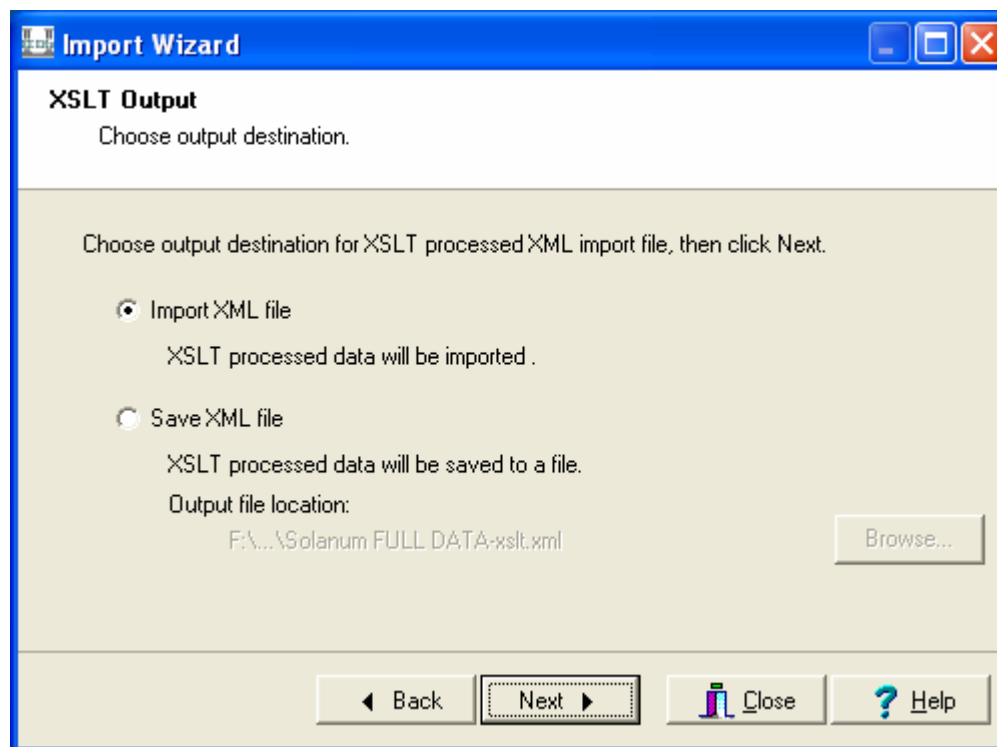
XML Import pre-processing

client

- Extends import facility to allow restructure of input XML.
- XSLT used to transform XML.
- Processed XML can be imported or saved in a file.
- Wizard used to walk through transformation process.
- XSLT file can be:
 - Local file
 - Pre-defined (stored on server)
- Administrators can install pre-defined XSLT for common input formats.









Record Recall

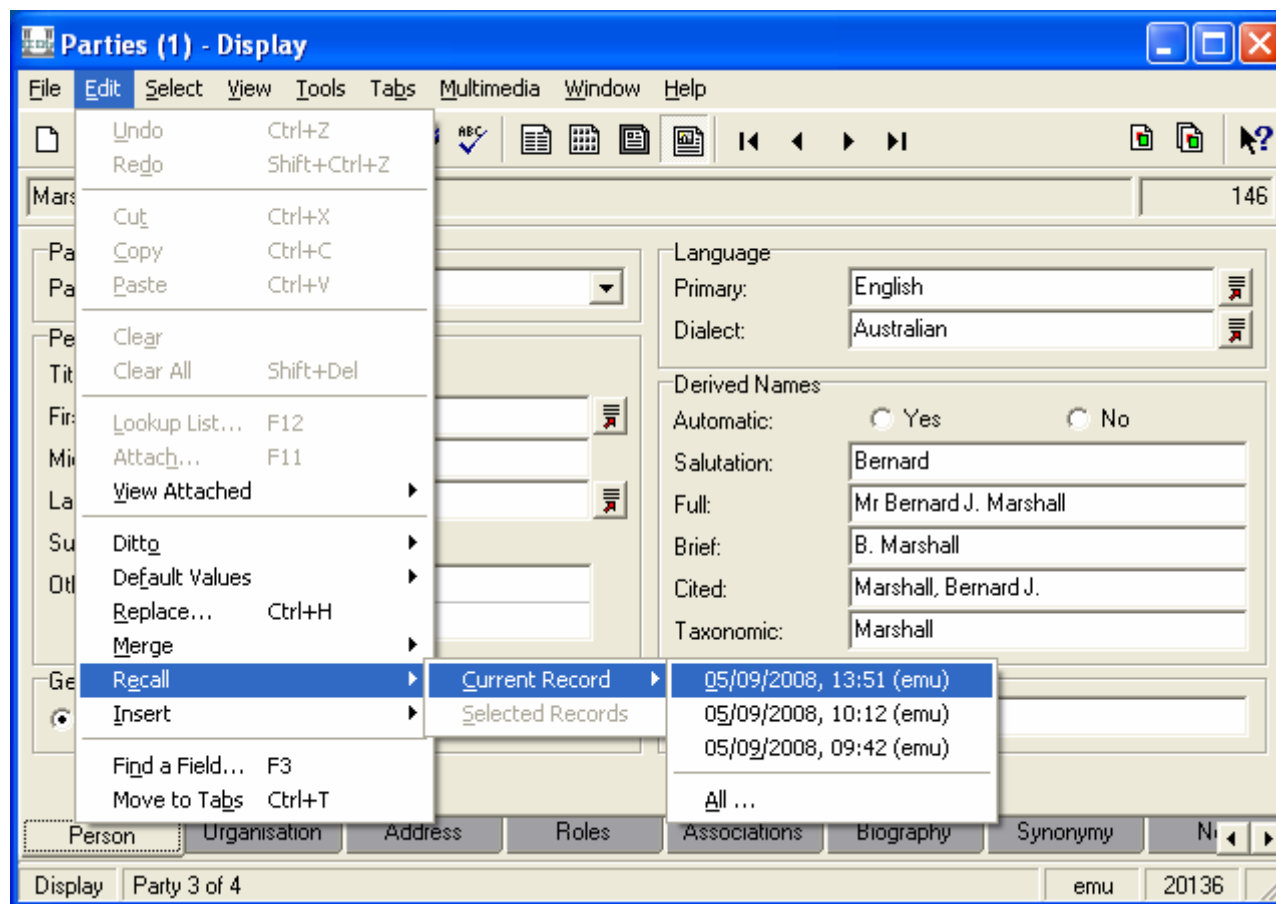
client

- Applies changes to recall a record to an earlier version.
- Auditing module used to “rewind” data.
- User left in “Edit” mode to cancel or apply changes.
- Provides a batch facility allowing multiple records to be recalled to a given date and time.
- New audit records created when recall applied.
- Registry entry used to force fields to be “skipped” when using Record Recall:

```
User|user|Table|table|Recall Skip Columns|column;...
```

```
Group|group|Table|table|Recall Skip Columns|column;...
```

```
Group|Default|Table|table|Recall Skip Columns|column;...
```





Date Modified	Time Modified	Modified By
05/09/2008	13:51	emu
05/09/2008	10:12	emu
05/09/2008	09:42	emu

Buttons: View..., OK, Close, Help

Recall... [Close]

Enter the date and time to which the selected records should be recalled.

Date:

Time:

Buttons: OK, Cancel, Help

Recalling...

Records Processed: 1

Records Recalled: 1

Percentage Complete: 100%

Buttons: OK



Record Templates

client

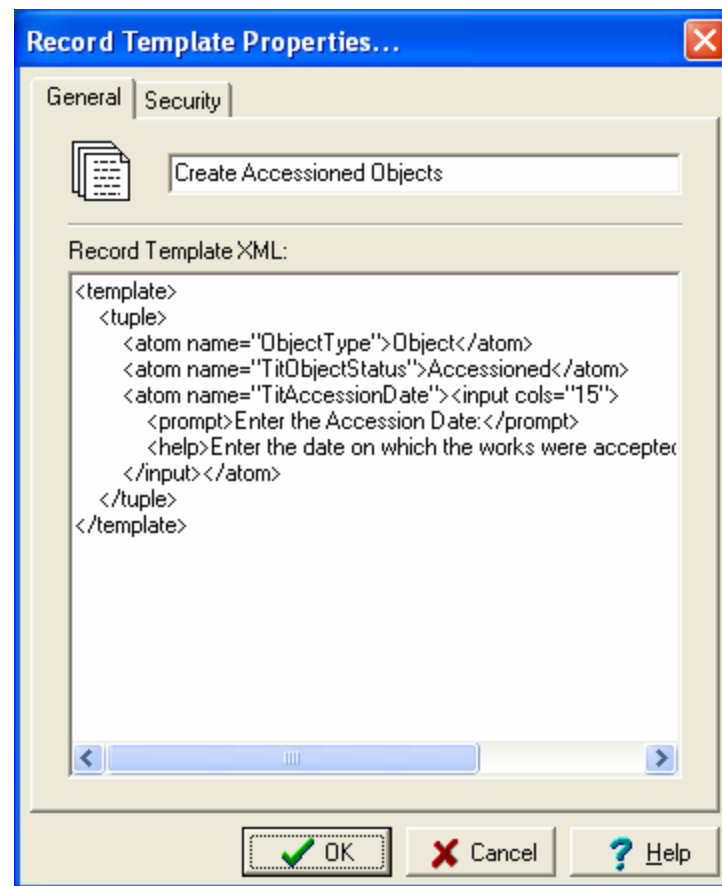
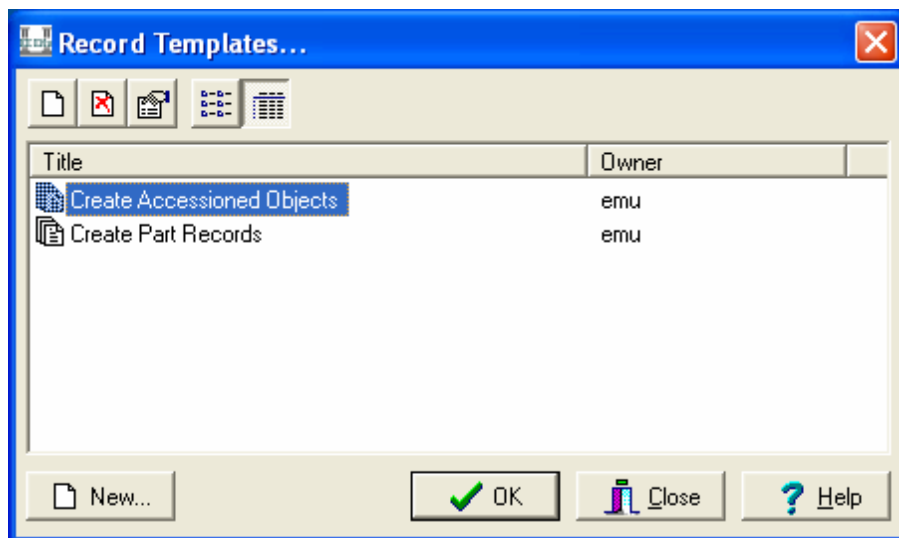
- Create multiple copies of an existing record.
- XML template description:
 - Allows fields and text to be copied into other fields.
 - Prompts user to enter a value for a field.
 - Provides support for incrementing fields.
- XML: same format as used for Import and Report data.
- Wizard used to guide user through creation process.
- Starting IRN can be supplied to reserve a batch of numbers.
- Report produced detailing records created.



Record Templates

client

- Multiple templates can be created and security used to limit user access.
- New operational privilege, *daTemplates*, required to create Record Templates.
- Useful for:
 - Creation of parts records from a parent record.
 - Creation of preparation records for a specimen record.
 - Reserving a block of IRNs or Registration Numbers.





Record Template Wizard

Record Templates
Choose how many records to create.

Select the number of records to create and a starting IRN and click Next, or accept the defaults and click Next.

Number of records to create:

Starting IRN: (empty = next available IRN)

◀ Back **Next ▶** Close Help



Drag & Drop Multimedia

client

- Drag & Drop multimedia files onto:
 - Multimedia tab
 - Multimedia component
- Multimedia Repository record created and attached to current record.
- Usual multimedia attachment processing occurs:
 - Resolutions generated
 - Metadata extracted
 - Text/HTML versions of document generated



Statistics Module

client

- New module designed to hold statistical values.
- Simple record design comprising:
 - User-defined hierarchical key
 - Value (floating point number)
 - Date
 - Date Range
- Automated reports populate module.
- Reports used to interpret statistics stored.



Statistics (1) - Display

File Edit Select View Tools Tabs Window Help

1431

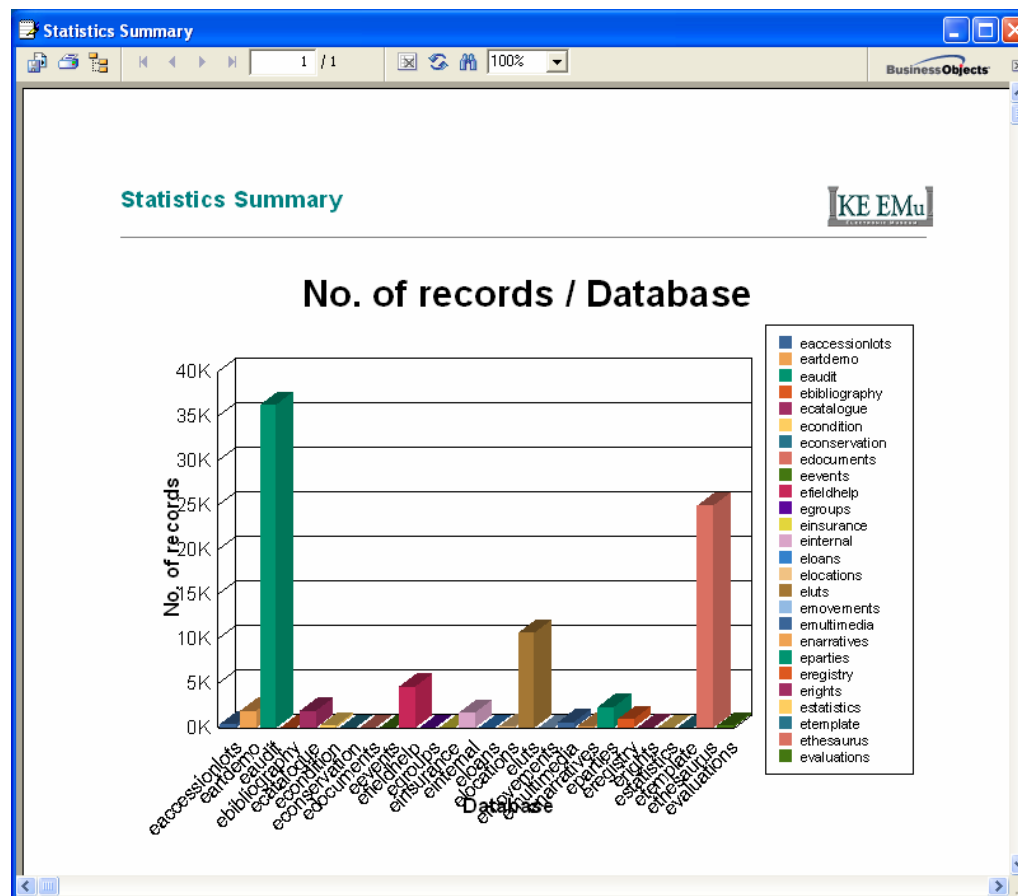
Key	
1	User
2	emu
3	Table
4	eparties
5	Insertions
6	
7	
8	
9	
10	
	11
	12
	13
	14
	15
	16
	17
	18
	19
	20

Statistical details

Value: Date Exact: From: To:

Statistics Security Audit Admin

Display Record 1 of 1431 emu 20136





Pre-configured View Attachments

client

- Add *View Attachments* menu option for a given module.
- Allows attachments to be viewed for a given field or list of fields in attaching module (rather than all fields).
- Registry entry determines field(s) used:
`User|user|Table|table|View Attachments|module|NULL|column;...`
`Group|group|Table|table|View Attachments|module|NULL|column;...`
`Group|Default|Table|table|View Attachments|module|NULL|column;...`
- *All* can be used to specify all attaching fields.



The screenshot shows the EMu software interface. The main window is titled "Parties (1) - Display" and has a menu bar with "File", "Edit", "Select", "View", "Tools", "Tabs", "Multimedia", "Window", and "Help". The "View" menu is open, showing options like "List", "Contact Sheet", "Page", "Details", "Thumbnails", "First Record", "Previous Record", "Next Record", "Last Record", "Go To Record", "List Settings", "Page Settings", "Shortcuts Settings", "Refresh", "Attachments", "Show Attachments", and "Synonyms". The "Attachments" option is selected, and a sub-menu is open showing "Bibliography", "Current Record", "Selected Records", and "Options". The "Current Record" option is further expanded to show "Current Record" and "Selected Records". The main display area shows a list of parties with columns for "Summary Data" and "Party Name". The status bar at the bottom indicates "Display 2391 matching parties" and "emu 20136".

Summary Data	Party Name
1	CHARD, Geo
2	Hedge, Douc
3	Artarmon Gal
4	Sellbach, Ud
5	PRINS, Rich
6	WILLIAMS, F
7	Rigby, Edwar
8	Laurence, Mi
9	Collins, Antho
10	HADLEY, MF
11	Sinatra, Mr F
12	Heinrichs, Jo
13	ROME, Dr R
14	National Gall
15	Elaine Haxton
16	RANDALL, F
17	Christiansen, James
18	Deegan, Angela



Range Indexing analysis

server

- Data analysed to determine optimal configuration for range searching (date, time, latitude, longitude, integer, float).
- Registry updated with new settings; used when table next re-indexed.
- Three different schemes available:
 - Distribution (even distribution of values)
 - Interval (even intervals between first and last values)
 - Partition (even distribution of unique values)
- Can be used to generate reports for creating manual range configurations in Registry:

System|Setting|Table|*table*|Range Buckets|*column/value*;...



Adaptive configuration and tuning server

- Indexing information maintained on a per record basis.
- Information used to generate a configuration based on the actual data distribution rather than an “averaged” distribution.
- Results in smaller indexes without loss of speed.
- Configuration utilities upgraded to use per record information:
 - *texconf* (configuration generator)
 - *texanalyse* (report on indexing distribution)
 - *texdensity* (report on indexing density)
- Administrators can override default indexing parameters to further tune indexes.



Multimedia Web Service

web service

- Provides HTTP access to EMu Multimedia Repository.
- Upload images and documents into Multimedia Repository:
 - Metadata extracted
 - Resolutions generated
- Download images and documents. Images downloaded with:
 - Any resolution
 - Any format
- URL can be embedded in any HTML web page:

```
http://machine/emuweb/webservices5/mmr/entry.php?request=resource&  
irn=irn&format=format&width=width
```



Multimedia Web Service

web service

- Download image metadata in XMP for:
 - EXIF
 - IPTC
 - XMP
 - Native
- Used to provide multimedia resources to third party systems.



Mapper

web services

- Support for polar projections.
- Support for map layers spanning the date line.
- Co-ordinate system expanded to allow mapping of arbitrary areas, for example:
 - Plants/species within Botanic Gardens
 - Object collection sites within a city/district



RBG Garden Map - Windows Internet Explorer

http://syd.kesoftware.com/emuweb/rbgsw/webservices/mapper.php?instance=StandardMapper.25994.122057713&type=Garden&mapfil

File Edit View Favorites Tools Help Links HSBC (USA) RBC (Canada) Yorkshire (UK) NAB eFX Taxes

RBG Garden Map

PlantNET RBG Garden Map

Search by Terms Search Using Map Results List Display **Detailed Map Display** Previous Page

get details of a specimen by pointing at it

Royal Botanic Gardens and The Domain

-33.87158, 151.22408

0 320 640 960 1280 m

Legend

- London Plane

Show by

- Scientific Name
- Common Name
- Family
- Genus
- Location
- Native Or Exotic

Map Layers

- Aerial Photo¹
- Garden²

¹Extracted from image supplied by RBG NSW, Unknown Copyright

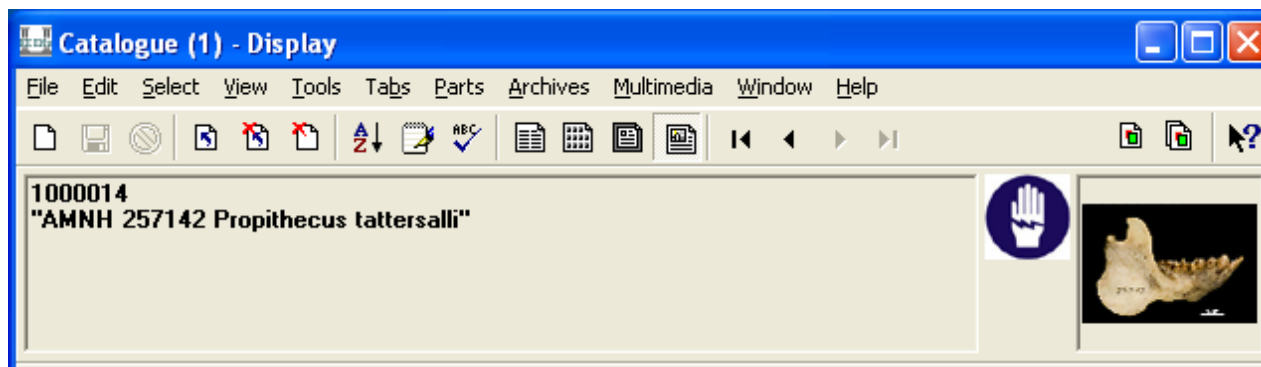
²Property of RBG NSW

Done Internet 100%

Image Display

misc

- Extended to allow images for empty/non-empty fields:
 - User|user|Table|table|Image Display|column|NULL|image;audio;hint
 - Group|group|Table|table|Image Display|column|NULL|image;audio;hint
 - Group|Default|Table|table|Image Display|column|NULL|image;audio;hint
- Use of NULL and NOT NULL value

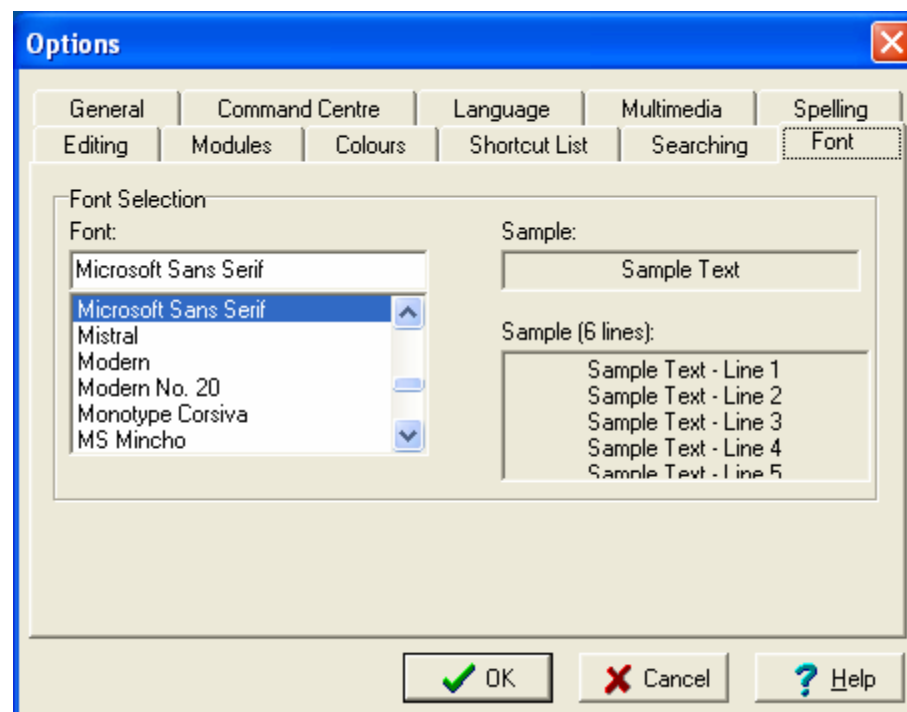




Font Selection

misc

- User can select font used within EMu.
- Full support for “Big Fonts”.

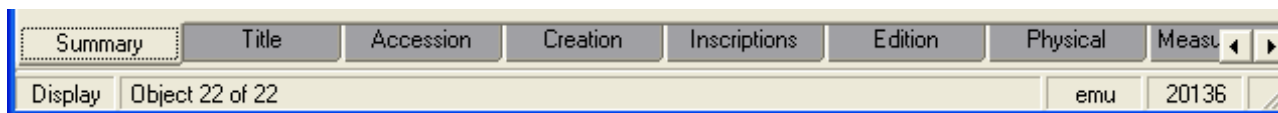




System Identification

misc

- User name and service added to Status bar.
- Useful when running multiple services (e.g. test vs live).



Save Settings

misc

- *Save Size* option extended to restore maximised modules.



Copy from Help Screen

- Field information can be copied from Help Screen.

misc

Display Information	
Control Name:	QryPerFirstLgd
Tab Name:	QryPerTab
Viewed By:	Group Default
Field Information	
Module:	eparties
Column:	NamFirst
Type:	Text
Kind:	Atomic
Lookup Name:	First Name
Lookup Level:	1
Reference Information	
Link Column:	
Module:	
Column:	

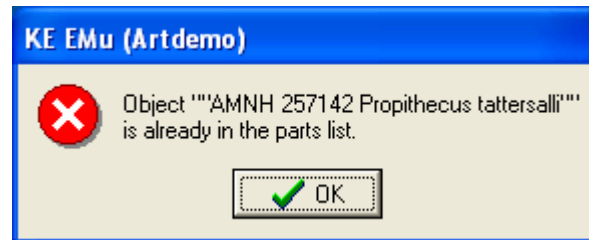
Audio/Video upgrade

- All multimedia components upgraded to use new audio and video drivers.

Reference loops detected

misc

- Detection of loops when attaching records within same module:
 - Catalogue (Parent Object)
 - Events (Master Event)
 - Narratives (Master Narrative)





Geo-referencing fields

misc

- Common mapping co-ordinate fields across clients.
- Designed in conjunction with user base.
- Available in Sites and Collection Events modules.

Additional taxonomy tabs

misc

- Four new nomenclatural tabs (2 ICBN, 2 ICZN).
 - Improved documentation of name per relevant code.
- Hierarchy tab.



New technologies

technology

- JDBC (java)
 - Level 4 driver, interfacing with database server (texserver)
 - Beta release used in production
- Web 5 (PHP 5)
 - Class based objects interfacing to XML server (texxmlserver)
 - No embedded HTML
- Texapi.pm (Perl)
 - Class based objects interfacing to database server (texserver)
 - Perl package