## Conservation:  Treatment process

### *Summary*
In August 2005, a group of conservators, project managers, IT professionals, gathered to discuss the possibility of developing a set of core requirements for the revision of the Conservation module in KE EMu.  Participants came from the Field Museum, National Museum of the American Indian, National Museum of Natural History, US Holocaust Memorial Museum, Winterthur Museum.  The participants agreed on the following points:

- Focus on processes that are performed at every institution.  Treatment is the starting point.
- The core requirements will only address the Treatment process.  All other processes, i.e. survey, pest management, sampling, etc. are too institution-specific to develop a standardized work flow.
- Each institution will need to subclass Conservation to handle the institution-specific work flows outside of Treatment.

At the EMu Users Meeting in Chicago, October 2005, this group and other interested parties along with KE staff met to discuss further steps.  A forum on Conservation was created on the emuusers.org web site and lively discussions ensue.

A set of core requirements is ready for delivery to KE for further discussion.  These requirements cover the treatment process; an activity performs by each conservation department.

### *Work flow for treament*
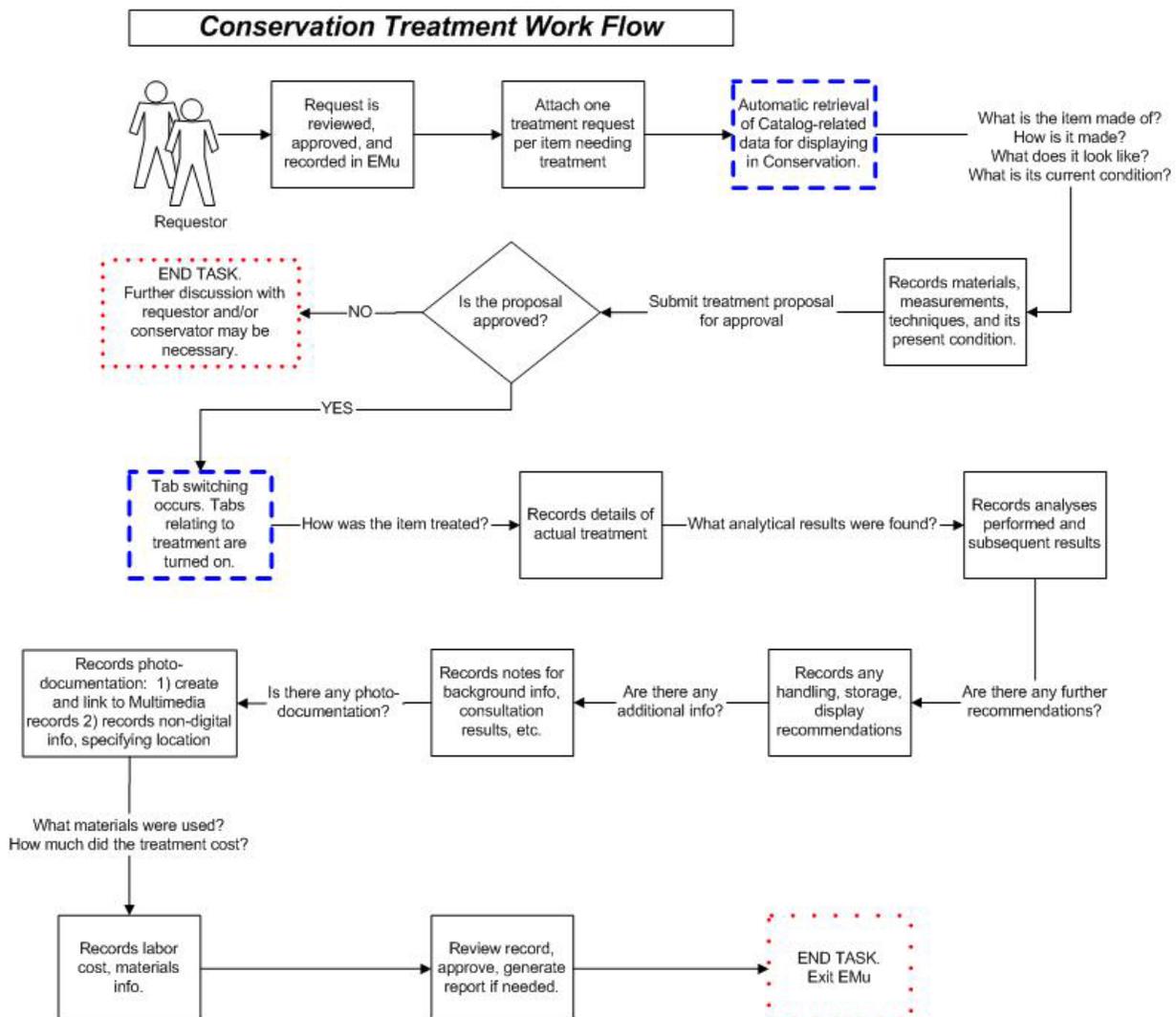
The users group proposes the following core tabs:
1. Request: Stores information relating to a submission for treatment of an item. This tab is used by those institutions whose work flow includes tracking of request and subsequent approval or disapproval to proceed.
2. Information: Stores information relating to the item undergoing treatment.
3. Description: Stores the material components, measurements, and detailed description of the item's construction.
4. Condition: Stores the current condition of the item.
5. Internal proposal: Stores information related to the treatment proposal. Used for internal requests by the institution.
6. External proposal: Stores information related to the treatment proposal including additional data relating to cost. Used for external requests by those institutions who perform treatment work for other museums, companies, etc.
7. Treatment: Stores detailed information related to the actual treatment.
8. Analyses: Stores any analytical processes conducted as part of the treatment of the item and related bibliographic references.
9. Multimedia: Standard Multimedia tab.
10. Non-digital media: Stores any other type of non-digital photo-documentation relating to this treatment, i.e. film, print, slide, that are on file.
11. Recommendations: Stores recommendations relating to handling, display, storage, etc. for the item as related to its use at the time, i.e. for an exhibit.
12. Notes: Stores any other comments and related bibliographic references to the item.
13. Accounting: Stores information relating to the final costs, materials used in the treatment.
14. Tasks: Standard Tasks tab
15. Admin: Standard Admin tab

In addition to the standard EMu functionalities in the Conservation module, NMAI will require the following functionalities:
1. Retrieval of specific Catalog information for read-only display in Conservation.
2. Tab switching based on an Approved flag.
3. Calculation of total labor cost, total material cost, and a total treatment cost based on labor and material.
4. Auto-generation of additional treatment records for each item if the same treatment is performed on a group of items.

| 1.  **Request tab** | **STATUS:  NOT DONE** |

Stores information relating to a submission for treatment of an item.  This tab is used by those institutions whose work flow includes tracking of request and subsequent approval or disapproval to proceed.



*Functionality*
- **Conservation Number:**  Text field.
- **Request Status:**  Text field, controlled by lookup list.
- **Requested By:**  Linked field to Parties.
- **Date Requested:**  Date field.
- **Expected Completion Date:**  Date field.
- **Actual Completion Date:**  Date field.
- **Completion Notification Date:**  Date field.
- **People to notify:**  multi-value, linked field to Parties.
- **Associated event:**  Linked field to Events.
- **Associated loan:**  Linked field to Loans.
- **Other reason:**  Text field, controlled by lookup list.

| 2. **Information tab** | **STATUS:  NOT DONE** |
|---|---|

This tab records the basic information about an item requiring treatment.



*Functionality*
- **Object:**  Linked field to Catalog.
- **Catalog info**: Local fields from Catalog, read-only. Will require customization on a per-institution basis. Examples shown here are Accession Year; Country; Ethnic Grp; Accession Num; District; Location; Catalog Num; Site ; Barcode:
- **Record type:**  Linked field, controlled by lookup list.  The type of Conservation Record. The intention is that this field can be used for tab switching.  For example, Record type = Pest Management can turn on Pest Management related tabs.
- **Record date:**  Date field.
- **Conservators:**  Multi-value, linked field to Parties.
- **Record status:**  Text field, controlled by lookup list.
- **Associated event:**  Linked field to Events.
- **Associated loan:**  Linked field to Loans.
- **Other reason:**  Text field, controlled by lookup list.

| 3.  **Description tab** | **STATUS:  NOT DONE** |
|---|---|

Stores descriptive information for the item, i.e. materials, techniques, etc.
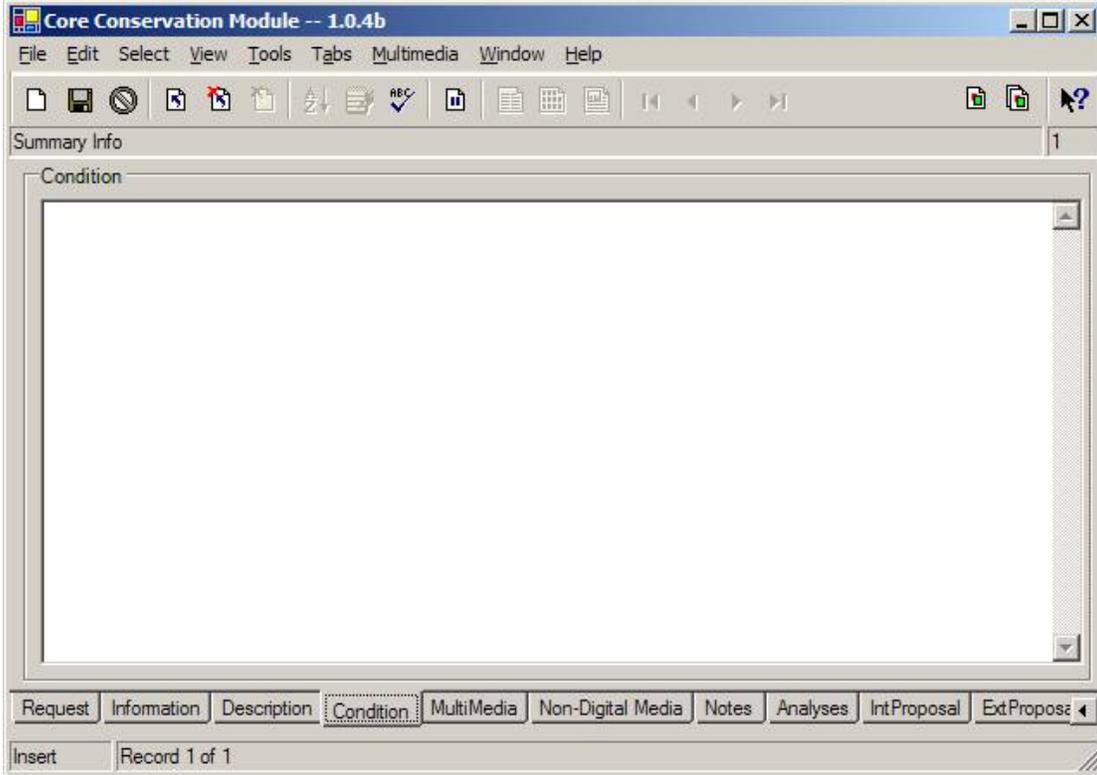


*Functionality*

- **Materials:**  Multi-value, text, controlled by lookup list.  *Note:  this may be a field that can push data back into the Catalog with the assumption that a matching field exists in Catalog.*
- **Dimensions:**  Multi-value linked grid.  Group for storing all measurements related to the item.  *Note:  these fields may contain data that need to be pushed back into the Catalog with the assumption that matching fields exist in Catalog.*
    - o  **Part:**  Text field.  The part of the item being measured.
    - o  **Kind:**  Text field, controlled by lookup list.  The type of measurement recorded, i.e. Height, Length, etc.
    - o  **Value:**  Floating decimal.  The actual value of the measurement taken.
    - o  **Unit:**  Text field, controlled by lookup list.  The unit for the measurement, i.e. cm, m, ft, in, etc.
    - o  **Comment:**  Text field.  Stores additional info for the measurement, i.e. approximate, taken without finial, etc.
- **Description:**  memo field.  Stores textual descriptive info of the item.

| 4.   Condition tab | STATUS:  DONE |
|---|---|

This tab records the current condition of the item.



*Functionality*
- **Condition:**  Memo field.

| 5. __Internal Proposal tab__ | STATUS:  NOT DONE |
|---|---|

Contains information relating to the proposed treatment when generated internally.



*Functionality*
- **Context:**  Text field controlled by lookup list.
- **Action:**  Memo field with description of proposed treatment.
- **Proposed By**:  Multi-value, linked field to Parties.  Contains names of individuals who propose the treatment; may not be the same as those who perform the treatment.
- **Estimated Hours:**  Floating decimal field (to one decimal place).  Stores an approximate duration for treatment process.
- **Proposal Date:**  Date field.  The date when the proposal was made.
- **Authorization:**  Multi-value linked grid.  Group for storing individuals who approve or disapprove of the proposal.  Data entry is done at the top with a linked grid displaying all authorizations below.
  - **Name:**  Linked field to Parties.  Name of individual who has authority over the proposal.
  - **Approved?**:  Text field, controlled by lookup list.  Default values = Yes, No.  Value here will be used for tab switching, displaying Treatment-related tabs.  *Note: Need to decide what tabs are Treatment-related besides Treatment and Accounting.*
  - **Comment:**  Text field.  Stores additional comment regarding the decision.
  - **Date:**  Date field.  Date of decision.

| 6. **External Proposal tab** | **STATUS: NOT DONE** |
|---|---|

Contains information relating to the proposed treatment when generated externally. This tab will probably be turned off for those institutions who do not perform conservation work for outside organizations.



*Functionality*

- **Proposal:** Linked-grid. Use to store all tasks needed for the treatment.
    - o **Task:** Text field. A brief description of the task.
    - o **Conservator:** linked field to Parties. *Note: What happens if there is more than one conservator?*
    - o **Hours:** Floating decimal (to one place).
    - o **Rate:** Currency field (to two decimal places).
    - o **Subtotal:** Calculated field, generated by multiplying Hours x Rate.
- **Material:** Multi-value text field, controlled by lookup list.
- **Manufacturer:** Linked field to Parties.
- **Supplier:** Linked field to Parties.
- **Qty:** Integer field.
- **Unit:** Text field, controlled by lookup list.
- **Unit Cost:** Currency field (to two decimal places).
- **Subtotal:** Calculated field, generated by multiplying Qty x Unit Cost.
- **Proposed By:** Multi-value field, linked field to Parties.
- **Proposal Date:** Date field. The date when the proposal was made.
- **Labor cost:** Calculated field, read-only. Sum of all Subtotal for tasks.
- **Material cost:** Calculated field, read-only. Sum of all Subtotal for Materials.
- **Total cost:** Calculated field, read-only. Sum of Labor Cost + Material Cost.
- **Authorization:** Multi-value linked grid. Group for storing individuals who approve or disapprove of the proposal. Data entry is done at the top with a linked grid displaying all authorizations below.
    - o **Name:** Linked field to Parties. Name of individual who has authority over the proposal.
    - o **Approved?**: Text field, controlled by lookup list. Default values = Yes, No. Value here will be used for tab switching, displaying Treatment-related tabs. *Note: Need to decide what tabs are Treatment-related besides Treatment and Accounting.*
    - o **Comment:** Text field. Stores additional comment regarding the decision.
    - o **Date:** Date field. Date of decision.

| 7.  **Treatment tab** | **STATUS:  NOT DONE** |
|---|---|

Stores the treatment process.  Some institutions will record information as the treatment occurs; some will record after treatment has ended.  Some include post-treatment condition, i.e. the crack has been repaired and is no longer visible, in this section.



*Functionality*
- **Treatment:**  Memo field.
- **Start Date:**  Date field.
- **Finish Date:**  Date field
- **Actual Hours:**  Floating decimal field (up to two decimal places)
- **Treated By:**  multi-value, linked field to Parties.

| 8. **Analyses tab** | **STATUS:  NOT DONE** |

This tab records any analytical data as part of the treatment.



*Functionality*

- **Analysis details:**  Linked grid for storing all analyses conducted on the item as part of this treatment.  Date entry is done above; list of analyses is displayed below.
  - o **Test For:**  Text field, controlled by lookup list.
  - o **Method:**  Text field, controlled by lookup list.
  - o **Result:**  Text field.
  - o **Tested By:**  linked field to Parties.
  - o **Date:**  Date field.
  - o **Biblio ref:**  linked field to Bibliography.
  - o **MM ref:**  linked field to Multimedia.

| 9. **Accounting tab** | **STATUS: NOT DONE** |
|---|---|

This tab records the material & labor cost after the treatment has completed. Some institutions will not use the labor group, which will mostly be used by institutions who perform work for external organizations.
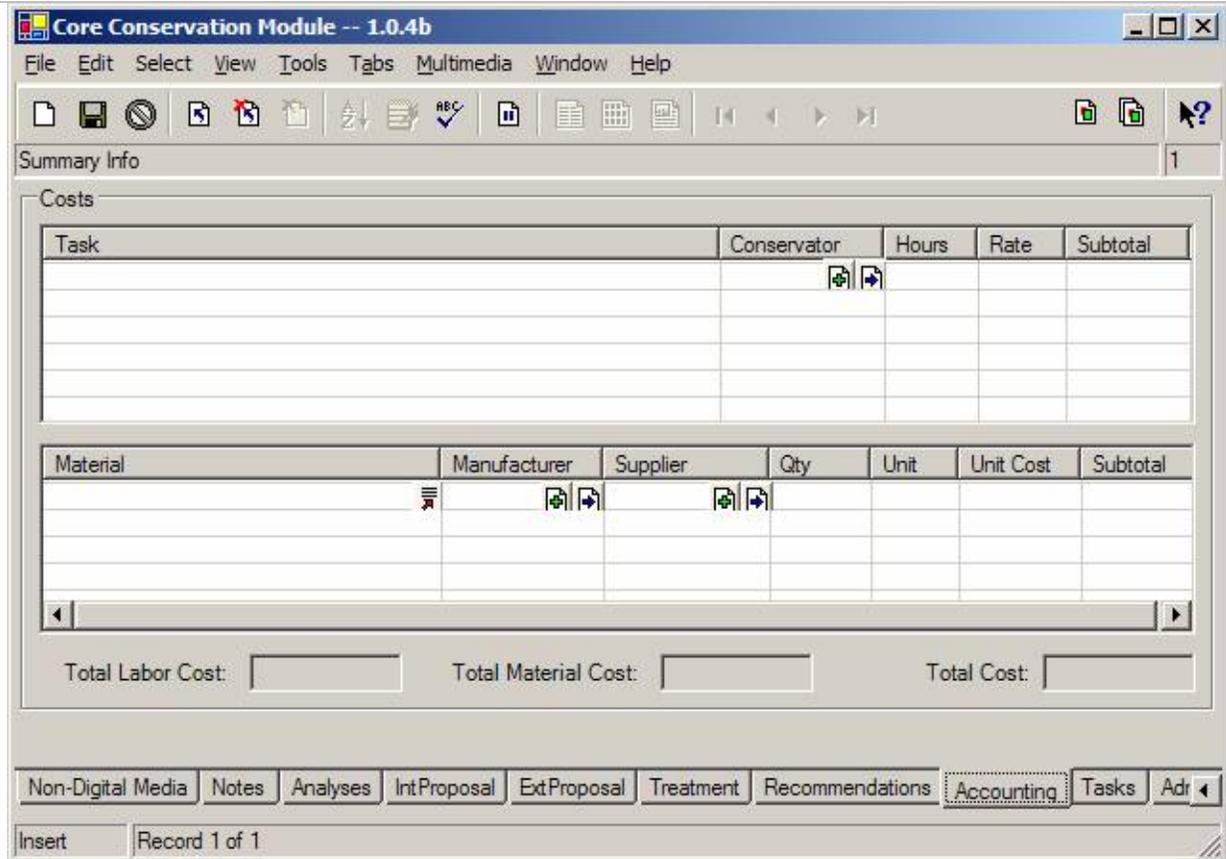


*Functionality*
- **Summary Info:** linked-grid. Use to store all tasks used in the treatment.
  - **Task:** Text field. A brief description of the task.
  - **Conservator:** linked field to Parties.
  - **Hours:** Floating decimal (to one place).
  - **Rate:** Currency field (to two decimal places).
  - **Subtotal:** Calculated field, generated by multiplying Hours x Rate.
- **Material:** Multi-value text field, controlled by lookup list.
- **Manufacturer:** Linked field to Parties.
- **Supplier:** Linked field to Parties.
- **Qty:** Integer field.
- **Unit:** Text field, controlled by lookup list.
- **Unit Cost:** Currency field (to two decimal places).
- **Subtotal:** Calculated field, generated by multiplying Qty x Unit Cost.
- **Total Labor cost:** Calculated field, read-only. Sum of all Subtotal for tasks.
- **Total Material cost:** Calculated field, read-only. Sum of all Subtotal for Materials.
- **Total cost:** Calculated field, read-only. Sum of Labor Cost + Material Cost.

| 10. Recommendations tab | STATUS: NOT DONE |
|---|---|

This tab records any recommendations, handling, storage, etc. for the item in the context of its current use.
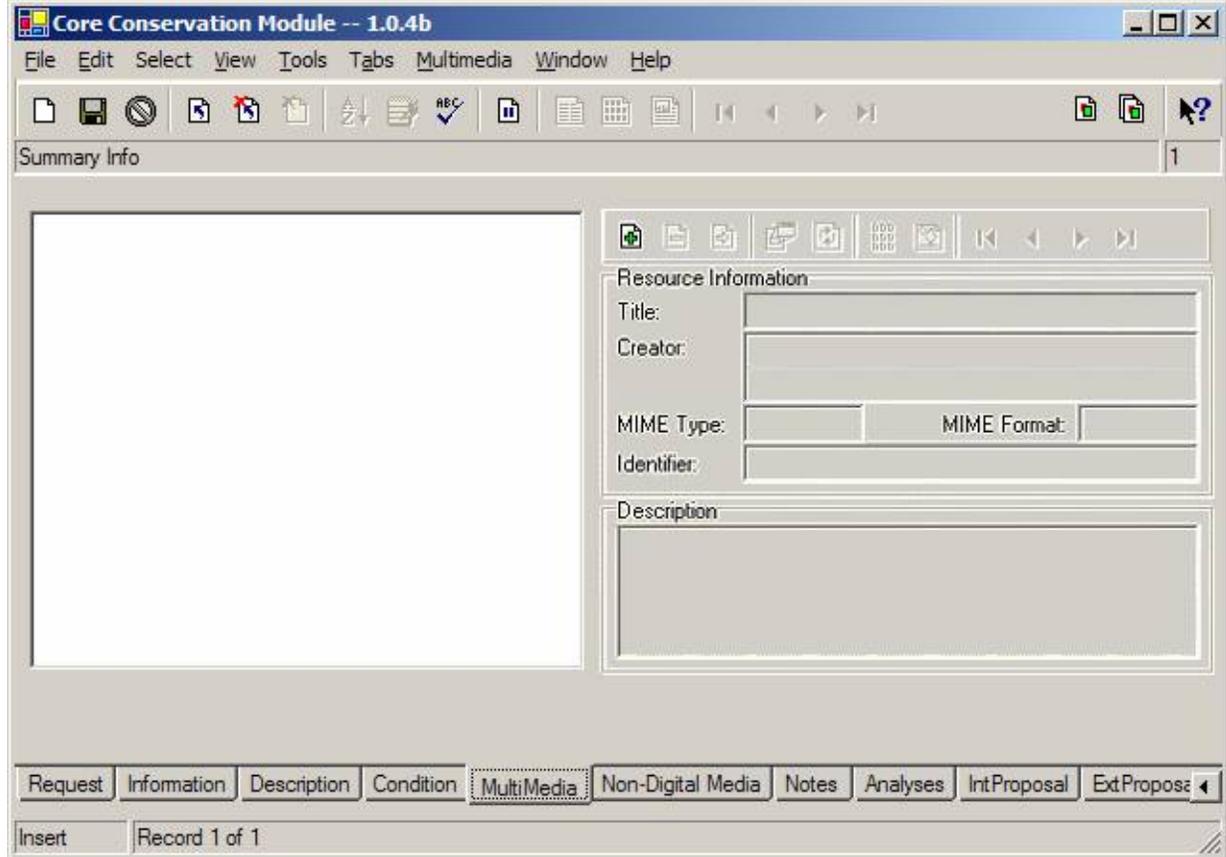


*Functionality*
- **Environmental limits:** Text field.
- **Handling requirements:** Text field.
- **Mounting requirements:** Text field.
- **Storage requirements:** Text field.

| 11. **Multimedia tab** | **STATUS: DONE** |

This tab shows all attached multimedia assets.



    *Functionality*

This is the standard Multimedia tab from the Conservation module.  No modification is needed.

| **12. Non-Digital Media tab** | STATUS: NOT DONE |
|---|---|

This tab records non-digital multimedia assets.



*Functionality*

- **Non-digital media details:**  Linked grid.
    - o  **Kind:**  Text field, controlled by lookup list.  Stores the type of non-digital media, i.e. print, transparency, etc.
    - o  **Department:**  Text field, controlled by lookup list.
    - o  **Description:**  Text field.  A brief description of the image subject, i.e. detail shot of left handle.  May contain other technical info, i.e. light source, f-stop, etc.  Details are up to the institution.
    - o  **Locator:**  Text field, asset locator.  Might be controlled by a regular expression, but not by a lookup list.
    - o  **Date:**  Date field.  The date the image was produced.
    - o  **By:**  Linked field to Parties.  The person who produced the image.

| 13. **Notes tab** | **STATUS: NOT DONE** |

This tab stores additional notes regarding the treatment.



*Functionality*

- **Note Details:** double-nested grid. Data entry on top; grid for display below.
  - o **Note:** memo field.
  - o **Date:** date field.
  - o **Kind:** text field, controlled by lookup list.
- **References Details:** double-nested grid. Data entry on top; grid for display below.
  - o **Attributed to:** multi-value, linked field to Parties. Each note may have multiple contributors.
  - o **Bibliographic reference:** multi-value, linked field to Bibliography. Each note may have multiple bibliographic references.

| 14. **Tasks tab** | **STATUS:  DONE** |
|---|---|

This stores any tasks that require notification to others.



*Functionality*

   Standard Tasks tab in Conservation module.

| 15. **Admin tab** | **STATUS:  DONE** |
|---|---|

This tab records all system generated information for insertion and modification status.
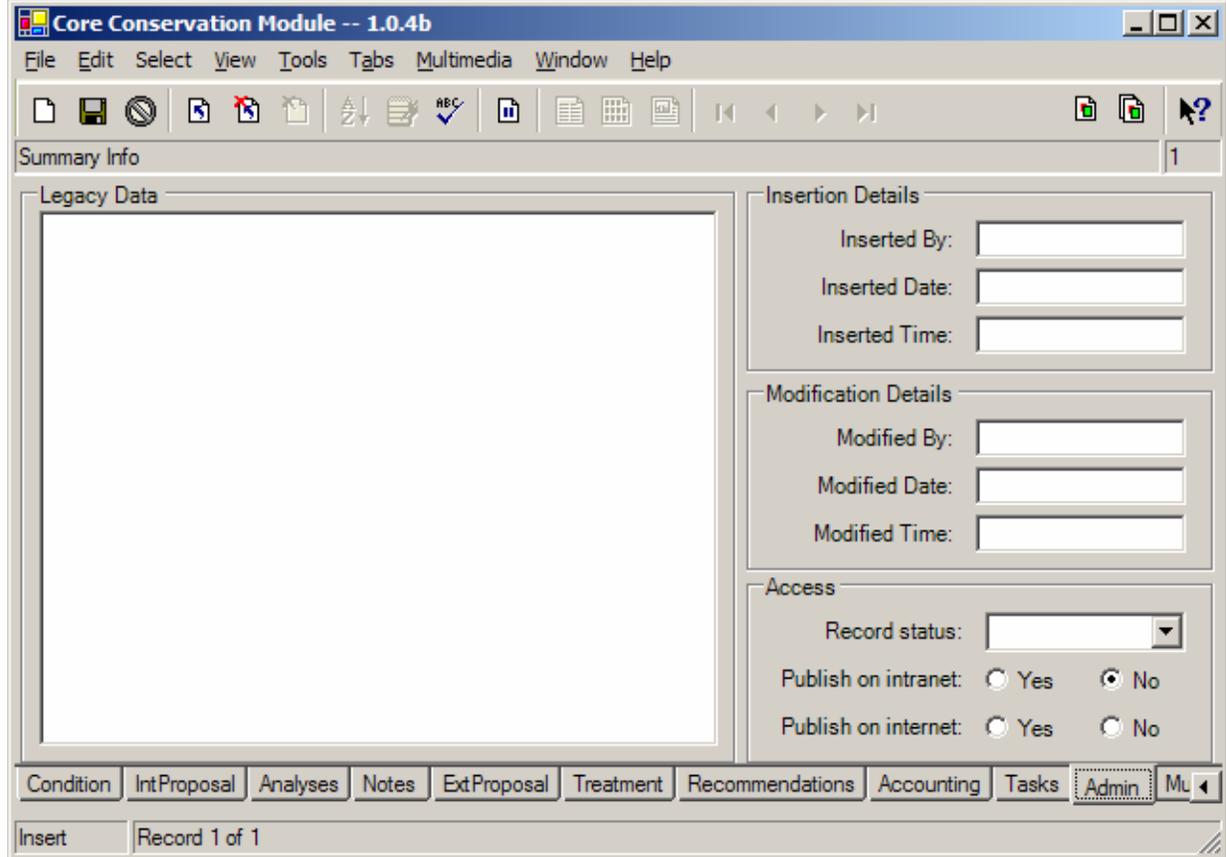


    *Functionality*

This is the standard Admin tab from the Conservation module.  No modification is needed.

| 16. **Special functionalites** | **STATUS:  NOT DONE.  Desirable.** |
|---|---|
| Auto-generation of additional treatment records for each item if the same treatment is performed on a group of items. | |
| *Functionality* <br> • Manually complete a treatment record. <br> • Select a function to set this record as a template. <br> • Points to a group of Catalog records. <br> • System automatically generates the treatment records and duplicates every field with data. | |