Change Control Guidelines – Information Systems

Operational Procedures for Change Control Impacting the Enterprise Systems

(Parts of this document are extracts from the document by Peoplesoft on Change Management which we have customised for our purposes)

Note: A separate document exists for Peoplesoft Change Control

Change Control Methodology

The change request / acceptance process must be formal and there must be documented evidence of it.

The appropriate Application Team (TMA, Banner Finance, Banner Student…) will be the working body through whom

a) change requests are received

b) some change requests are initiated eg. upgrades and patches

c) tasks are planned & prioritised

d) status discussed and managed

e) test strategy is managed

f) policies and practices governing change management are ratified.

This is done within the overall context of the Department's project commitments. Persons are assigned technical responsiblity for a particular task (or project) and are expected to manage the change within the defined change management context. See the description below of "Roles and Responsibilities".

Changes involving database upgrades, and patches to the application and the database environment must be coordinated by the DBA team leader (or someone else particularly assigned). In most cases the DBA team leader will be the persons through whom these implementation tasks are executed but there must NOT be only one person involved in executing significant application upgrades. This is a matter of business continuity assurance.

All significant tasks and all organised work having multiple functions and resources must be conducted in keeping with project management principoles as described by the PMI. The basic guidelines for our engagement, have been documented in *MITS Project Management Methodology....docx* with sample templates (*for general guidance*) in *MITS Project Methodology - Sample Templates ...docx*.

The Change Control process

Coordination and execution of extensive application upgrades and addons must follow the procedure (or rules) below . It may be useful at this point to review the section (below) on Roles and Responsibilities because reference is made here to the terms discussed in that section.

a) Assigning responsibility - The Change Manager has primary responsibility for steering the process of the change. The Role will be assigned as follows:
   - For Application customisation / addons - *The Application Coordinator/team leader is the change manager for this category except where a specific responsibility is assigned to an analyst / developer who may then assumes the role of change manager for that change. Note that each of our major applications have a designated team leader.*
   - For Version (database) upgrades and platform related changes - *DBA team leader Carl Duncan is the Change Manager except where a particular project is assigned to a member of the DBA team (for instance Gary Stines) who then assumes the role of change manager for that change.*

b) Determining the strategy - The output of this exercise will be a work plan. The strategy must be worked out among the team, led by the Change Manager. The resources assigned must be named in the plan. The plan will also outline as necessary - tasks, timeframes, standards, rules, execution steps, objectives, control procedures, constraints and assumptions. See *MITS Project Management methodology....docx* for guidelines.

c) Execution of the plan and strategy – one of the persons involved must be responsible for recording the process. The record should constitute the steps executed, the results, associated comments, issues and corrective measures taken where appropriate. As the project progresses the document must be available to all members of the change team. Where the change affects an existing application, execution of the tasks must take place in a development environment. If necessary, this must be established specifically for the process.

d) Testing – A test plan must be constructed for both internal testing and functional testing. Before testing is assigned to the functional participants, the change team must have conducted appropriate tests to ensure that the change works as expected and has not undermined other operations. To facilitate user testing the system must be installed in a test environment. User testing must be structured and must be done against the test plan. The process must involve all persons affected by or responsible for execution of the new function. A test report must be produced to attest to the fact that the environment has been appropriately tested. This is to be filed with the other change documents.

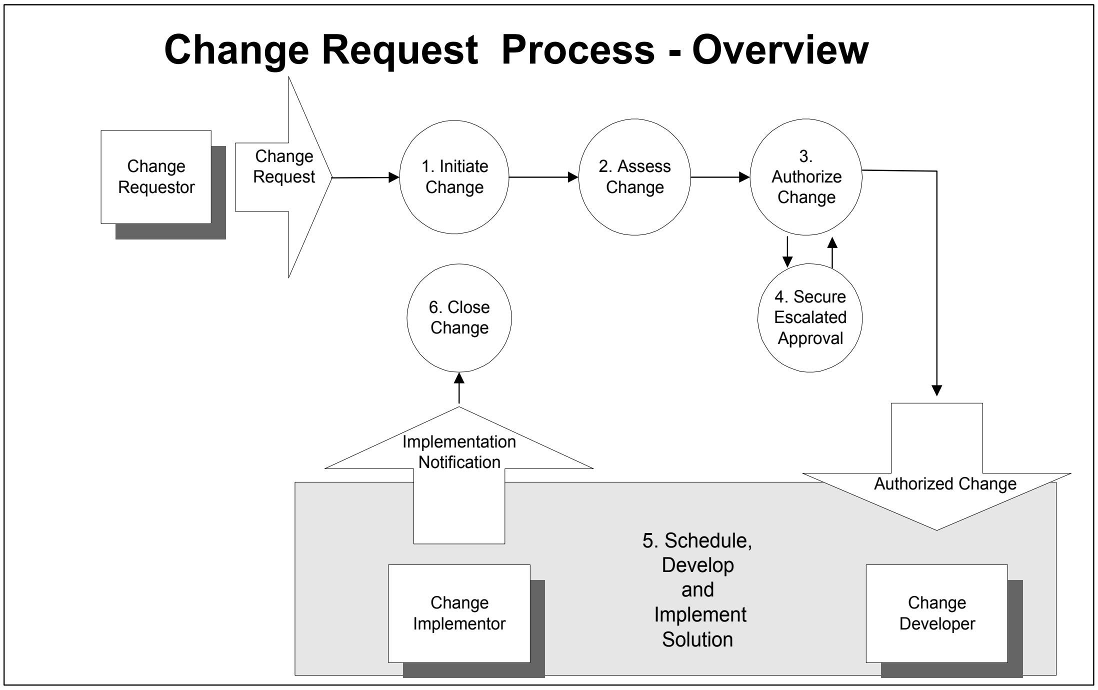
e) Where an elaborate upgrade (*ie requiring several stages or steps*) is in evidence, the test plan must incorporate stage by stage testing with provision for go no/go decisions. In such cases the change team must be involved in the planning process to ensure that the necessary application testing is planned into place. A typical example is a version upgrade of one of the Enterprise applications.

f) Deployment – this involves updating the Production instance. The change implementer may be the DBA or the developer who has been given appropriate permission so to do. He / she must advise the appropriate persons, users and team members, of the deployment strategy, and projected down time. At the completion of deployment, the constituents must again be advised that the change has been effected.

<u>Team evaluation after the fact</u> : the team must discuss among themselves in a team meeting , the project and the results. The purpose is to evaluate i) how well done ii) issues encountered iii) problem fixes ... and so on... with a view to correcting for the next process or making provision for possible eventualities. This may be an informal get together for small projects, but for larger projects, or where significant problems have occurred, group meetings must be called for the purpose, and the meeting recorded. It is the responsibility of the Change Manager to see to the doing of this.

Change Request Process and Procedures

(from Peoplesoft documentation)



1. Initiate Change involves completing and submitting a Change Request and logging the Change Request as received. (see Change Requestor)

2. Assessing Change includes two major activities. The first is to secure a business and/or technical assessment for the change if needed to fully evaluate the change. Second is appraising and prioritizing the proposed Change Request for business and technical issues and business value and impact. (see Change Management '*Working*' Group)

3. Authorize Change is approving or rejecting the Change Request. Approved Change Requests are forwarded to the person/team who will develop the solution. (see Change Management '*Working*' Group)

4. Secure Escalated Approval is getting approval for Change Requests that require approvals from a higher level or additional authority. (*MITS management in consultation with or instructed by appropriate Functional management.)*

5. Schedule, Develop and Implement Solution is outside of the Change Request Process. It is comprised of the activities of developing the solution, acceptance testing and implementing the solution. *(see Change Developer / Technical Consultant)*

6. Close Change is logging the Change Request as closed when notified that the change has been implemented. It also involves creating a backup strategy for the change and

documentation of steps necessary to recover or reapply the change if necessary after a major upgrade. Coordinated by Change Manager – see below)

Please note that MITS Manager for Applications must be informed of all these requests.

Related documents:
"Enterprise Systems Ownership and assignments" file is IT Security Enterprise System....docx
MITS Project Management Methodology....docx
MITS Project Methodology - Sample Templates ...docx.

See electronic form "Request For Service" on the MITS Website.

Roles and Responsibilities

The following are the key roles in the Change Management Process. Multiple roles may be performed by one individual on any one project.

1. Change Requestor

The Change Requestor initiates the change process. Requests may come from a user department or be initiated from within the IT Department. All user requests must be submitted in writing. User requests must be signed by the HOD or manager responsible for the area of work, or his/her disignee. *See form Request for Change – online form from MITS Website)*
Responsibilities include:

- Identify the business, service or technical need for the change.
- Define the success criteria for the change.
- Categorize the change (if able so to do)
- Propose the change solution in business or technical terms as appropriate (optional).
- Propose a date by which the change is needed.
- Identify the affected parties or area or business.
- Submit Change Requests for approval.
- Attend change request meetings as required.

2. Change Management Working Group ie the Application Project Team

The team co-opts the efforts of the MITS System Engineers and LAN Administators as necessary The Main co-opted persons are the Systems Engineers and the Faculty IT Administrators. Primary users from the Functional Departments may also be co-opted for a specific project, if found to be necessary.

The Working Group provides a forum to review Change Requests on a regular basis. The Change Management Working Group is comprised of MITS members of staff.
Responsibilities include:

* Assess and prioritize Change Requests.
* Approve or secure approvals for Change Requests.
* Rationalise resources
* Assess the benefit of the change in relation to cost.
* Assess the business risk and impact of the change.
* Ensure that the technical feasibility, risk and effect of the change have been adequately assessed.
* Approve or reject the Change Request.

* Determine scheduling

3.Change Manager

Type of Change	Change Manager
Change to the Application - customisation, add-ons, integration	Application Coordinator / Team Leader (*unless another person is particularly assigned to application maintenance or to the specific project)*
Change to the Application – upgrades, architecture, platform issues	DBA team leader *Unless another DBA is specifically assigned*
Database issues	DBA team leader *Unless another DBA is specifically assigned*
Network & Workstation	MITS Infrastructure. A member of the DBA team will liaise where required

The Change Manager manages the Change Management Process for all changes to items or projects to which he/ she is assigned. All changes requiring a significant expenditure of time and resource must be brought to the Change Management Working Team for authorisation.

a) If the change request is simple, routine, or clearly unacceptable, the Change Manager may use discretion to approve or deny the request without additional consultation in order to expedite problem solving.
b) If the change is extensive and has not yet been included within the team's scope of work it <u>must</u> first be brought to the Application Project Team for discussion or alternatively be discussed with MITS Applications' Manager to arrive at a determination of resource, schedule and possibly cost
c) All changes must be communicated to all members of the project team by the specific Change Manager unless someone else is designated so to do.

The Change Manager is also responsible for ensuring that Change Tracking information is maintained. Change Tracking responsibilities should however be delegated to the actual individual with primary responsibility for executing the change. *(suggestion: a template should be designed for conformity and for ease of actioning.)*

Management Responsibilities include:

* Manage production of the outcome
* Manage the movement of change requests through to approval taking place during production, recognizing where consultation is required
* Convene the change management meetings as required.

* Produce minutes of change management meetings including current status of all open Change Requests. Update the appropriate stakeholders frequently. *Meeting notes recorded be recorded by a team member named at each meeting. To be included in our document repository as a record.*
* Advise appropriate parties of the status of the change. *Frequent updates must be sent to the appropriate stakeholder by the person primarily responsible for managing the change*
* Verify closure of change. *A specific procedure for closure must be followed. A signoff document must be produced for the users to signify their acceptance or indicate their problems or comments or rejection. Where upgrades have taken place, this must also be signed off or commented by the primary MITS team member who is executing. (see Template submitted for suggested, not mandatory, use). The person responsible for execution is to carryout this task . If there is a difficulty it must be escalated to the Change Manager or MITS management.*

Change Tracking responsibilities summarized:

* Maintain change log with the status of Change Requests from inception through closure.
* Verify the Change Requests are correctly completed.
* Ensure all signoffs are obtained in accordance with the change management procedure.
* Notify appropriate parties of Change Request status.
* Create Change Management Reports as necessary.
* Keep stakeholders informed

4. Change Developer / Technical Consultant

This is referring to the person(s) on the MITS team to whom the technical tasks are assigned. For application changes this would include the application developer / system analyst. On one-man ‘small’ projects, this person could play a dual role and also act as Change Manager.

Responsibilities Include:

* Scope the impact and the level of effort required to implement the change:
  -identify those groups needed to provide resources and skills for the change
  -identify the technical solution
  -assess the integrity of data and databases affected by the change
  - be engaged in proposing proposing milestones for the change implementation
  -be engaged in proposing the schedule for the change implementation
* Create the technical documentation
* Attend the Change Management Working Group meetings as required.
* Excute the Change development tasks

5. Change Functional Consultant

The Change Functional Consultant is the person who provides the skill and resources to assess the Change Request in functional terms. This is usually the primary user in the functional department. Depending on the nature and scope of the change this function may be carried out by or through a department team. Often the functional consultant is also the change requester.

Responsibilities include:

- Assess impact on internal processes and resources
- Revise the business processes as necessary
- Identify internal resources to support and implement the change
- Evaluate cost / business benefits to justify the change
- Attend the Change Management Working Group meetings as required

6. Change Stakeholder

Parties that have an interest in a particular product are referred to here as the Change Stakeholder for that product. Their interest must include their responsibility to accept the change when completed or reject it for specific reasons. In order to do this, they must be engaged in the impact assessment and business process revision listed above.

The stakeholder must:

* Carry out appropriate tests as instructed and provide input on impacts of the change
* Attend change management meetings as required
* Approve the results at various stages of the change development, i.e. functional specification, implementation planning and acceptance testing. If the results are rejected, specific reasons must be given which can be taken into account for a revision or for a new version.

7. Change Implementer

The Change Implementer is responsible for placing the solution developed into practice. Depending on the change the activities may include and combination of the following:

- all activities that promote the change to the production environment
- implementing changes in workflow
- creating user documentation
- supervising user testing
- user training
- engagement in the verification process

The change implementer may engage a team including a DBA for the actual upgrade of the production database & application, documentalist, trainer ... and so on. The Implementer must advise the appropriate persons (including the Applications team) of the deployment completion. The handover of the project into production must be accompanied by a 'Close Out' document.

8. Security Officer

The Security Officer Updates the necessary Role and Permissions relevant to the implemented change.