A transactional system is the routine method for carrying out certain processes. This paper describes how a transactional system can be developed and operated for an office that has no computer support. The model is an Office of Institutional Research (OIR). The OIR manual (noncomputer supported) transactional system at Texas Southern University was developed to improve the internal management of the office. The office's major activities are monitored from initiation to completion through the three basic processes: coding, filing, and routing. The model is adaptable to almost any small office situation. It forces the user to spend a great deal of time logically analyzing the operations of his office and planning procedures designed to improve efficiency.
A MANUAL

OFFICE OF INSTITUTIONAL RESEARCH

TRANSACTIONAL SYSTEM

Prepared By
Frank S. Black, Ph.D.
Director, Office of Institutional Research
Texas Southern University

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A transactional system may be defined as a routine method for carrying out certain processes. To the extent that all offices have a relatively routine way of processing whatever their work, we may conclude that every office has a transactional system. How well it functions and its level of sophistication, no doubt, varies from office to office. The purpose of this paper is to describe how a transactional system was developed and is operating for an Office of Institutional Research (OIR) that has no computer support. In essence, this paper addresses the characteristics of a manual - non-computer supported - transactional system.

The OIR at Texas Southern University consists of a full-time director, information specialist and secretary. It was established on a full-time basis in the fall of 1973. The University per se is an urban institution located in Houston, Texas. The institution has a population of 8,500 students and 360 full-time faculty members. It has nine schools and awards degrees in 105 academic areas. The highest degree awarded by Texas Southern University is the doctoral degree in education.

In 1975, the OIR transactional system was developed primarily to improve the internal management of the office. Essentially it is a standard operating procedure by which office work is monitored from its initiation to its completion. It consists of three basic processes: coding, filing and routing. However, basic to these processes and, therefore, of primary importance to the success of the system is a clear delineation of the major activities of the office.
By posing the question What office activities consume 90% or more of the working hours of the staff? these major activities were specified. They are responding to data requests, usually in the form of questionnaires, designing and implementing institutional research studies, providing consultant services to faculty and staff engaged in research activities, and participating in a variety of University-wide committee activities.

Coding

These project activities were labeled and assigned two digit numbers as follows: (01) Questionnaires, (02) OIR Studies, (03) Consulting, and (04) Committees. To account for project activities that might not have been easily categorized into any one of these areas a fifth project activity was identified - (05) Special Projects.

Although the way the staff spent its time was clearly delineated, the need for further refinement in the coding process was obvious. While it was true that one could identify an activity file by its code, he could not immediately discover the source or origin of the activity, or the total number of similar activities which had been accomplished for the given year, or the particular fiscal year when the activity took place. Thus he could not quickly determine
the identity of the principal staff person responsible for the activity. These concerns led to the expansion of the two digit code system into one of ten digits. (See Diagram 1)

Diagram 1

<table>
<thead>
<tr>
<th>Project Activity</th>
</tr>
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<tbody>
<tr>
<td>Identification</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>02</td>
</tr>
</tbody>
</table>

This ten digit project activity number (PAN) is in essence a digital filing system. Diagram 1 may be interpreted as an activity classified as a questionnaire (02), forwarded by a national association (03) and as the seventh (07) such activity of this nature for the 1975 FY and the principal investigator is the office director (01).

The source digits (3) were further refined for each of the project activities as shown in Table 1.
Table 1

Project Activity Identification and Source Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategories</th>
</tr>
</thead>
</table>
| 01 - Questionnaires | (01) Federal  
                          (02) State  
                          (03) National Association  
                          (04) Other |
| 02 - OIR Studies    | (01) Requested  
                          (02) Mandatory or assigned  
                          (03) Self-initiated by OIR |
| 03 - Consulting     | (01) Administration  
                          (02) Faculty  
                          (03) Other |
| 04 - Committees     | (01) Regular  
                          (02) Ad Hoc |
| 05 - Special Projects| (01) Requested  
                          (02) Mandated  
                          (03) Self-initiated |
Filing

It is important to note that only the director of the office assigns a project activity number and title. This procedure enables him to categorize the activity and control the assignment of staff members to various activities. Upon receipt of the project activity number and title, (1) the secretary enters this information in her master file, (2) prepares a folder with a label showing the information, (3) places any materials received from the director which are related to the activity in the folder and (4) gives it to the assigned staff member for follow-through.

All subsequent correspondence or materials related to a coded activity are filed in the designated folder. When appropriate, project activity numbers are written on the documents to facilitate refiling should they become dislocated from the project activity file. Filing is done chronologically using the A, C. and D sets of digits noted in Diagram 1.

Each staff member retains an office project activity folder containing a listing of all project activity numbers and titles. Each month the secretary updates the staffs' folders based on her master file by typing new pages for the listings where necessary and distributing them to staff members.

Routing

Because of the relative routiness and standard format of the questionnaires usually received by the office, a standard operating procedure for processing this activity was much easier to devise and
oporalize this was the case with the other four office
activities. In fact, routine procedures for the handling of
these other activities remain very much in the embryotic stage
of development. Therefore, this discussion of routing pertains
exclusively to questionnaires.

The primary responsibility of the information specialist is to
insure that all questionnaires and/or interview schedules received by
the University and subsequently by the OIR are accurately, and
reliably completed on a timely basis. This is accomplished through
the transactional process shown in Diagram 2.

This process is a set of routing procedures used to provide
the data requested. It consists of three alternatives contingent upon
the nature of the request. First, the entire request may be satisfied
by the Information Specialist using the OIR's data base (Direct Office
Response). Second, should the data required not be a part of the OIR
data base, the request is referred to another University office for
completion (Referral Response). Finally, it is possible that the
request can be only partially completed through the use of the office
data base and must then be referred to other offices for additional
information (Combined Office Referral Response).

When a referral process is used, the office completing the
document returns it to the OIR for the purpose of reproducing a copy
for its files and mailing to the originator of the request which may
be a national, federal, state or private agency. This simple pro-
cedure helps tremendously to centralize the monitoring and storage
Diagram 2

Transactional Process

PROCESS I - (Direct Office-Response Process)
The questionnaire can be completed through information in the office data base.

PROCESS II - (Referral-Response Process)
The questionnaire must be referred to another source for completion.

PROCESS III - (Combined Office-Referral-Response Process)
The questionnaire can be completed, in part, through the office data base and must be referred to another source for suppletory information.
of data reported to external University agencies and individuals while simultaneously contributing to the enlargement of the OIR data base.

In summary, it is believed that this type of transactional system can be adapted to almost any small office situation. Like most systems approaches; however, it forces the user to spend a great deal of time logically analyzing the operations of his office and planning procedures designed to improve its efficiency. Nevertheless, it is highly predictable that his efforts will not be in vain.