PTV PROGRAMME SCHEDULING

AND

TRANSMISSION DATABASE

BY

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FINAL APPROVAL

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PROJECT BRIEF

PROJECT TITLE	PTV PROGRAMME SCHEDULING AND TRANSMISSION DATABASE
OBJECTIVE	TO DEVELOP A DATABASE FOR PTV PROGRAMMES DIVISION TO PROVIDE QUICK RETRIEVAL OF INFORMATION RELATED TO PROGRAMME SCHEDULING AND TRANSMISSION.
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TO

ALL

MY LOVED ONES

ABSTRACT

PAKISTAN TELEVISION is a very powerful organization with its transmissions reaching millions of people. A schedule of programmes to be televised by PTV is drawn on a quarterly basis. At the moment, all information regarding the scheduling and telecasting of programmes is managed manually. However, keeping in view the problems faced by the organization, a need was felt to computerize this system.

The new computerized system makes use of all information concerned with programme scheduling and transmission to create a central database of information. The advantage of this database is that it ensures efficient maintenance and retrieval of information.

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Fauzia Mahmud Zaka

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PREFACE

This dissertation deals with various aspects of programme scheduling and transmission. The objective of this project is to develop an on-line system for PTV programme management to enable it to retrieve information more efficiently.

Chapter 1 of the thesis takes a general overview of Pakistan Television Corporation.

The working and problems of the present system have been discussed in chapter 2.

Chapter 3 deals with various aspects of the proposed system while its design and specifications have been given in the 4th chapter.

The fifth chapter has been devoted to a discussion of software development.

Various issues concerned with the implementation of the

new system have been discussed in the 6th chapter.

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CHAPTER ONE

PTV
(A GENERAL OVERVIEW)

1.1 INTRODUCTION

PAKISTAN TELEVISION has stepped into the 25th glorious year of its existence on November 26th, 1989. This date marks a new era in its development and expansion of relationships with foreign TV networks and related agencies and organizations.

PTV in the 25 years of its existence has upheld its tradition of telecasting programmes that provide both entertainment and enlightenment. It was around the mid 70's that PTV had been rated as second best in Asia by a United Nations survey. Today, PTV supplies programmes not only to networks in other developing countries but also to the developed countries. Since 1972, PTV has been winning a number of international awards not only in the programming categories but also for the technical expertise displayed (as in the field of Engineering, for assembly of outdoor broadcast vans). The demand for PTV programmes and cassettes both at home and abroad as well as by foreign TV

networks is on the upturn year after year. A communications satellite for Pakistan, expected to be launched shortly, will be a very important development for global communication, for PTV.

1.2 ORGANIZATIONAL STRUCTURE

The corporation, at present, consists of :

i) Head quarters office at Islamabad

ii) TV centres at Lahore, Karachi, Islamabad, Quetta, Peshawar

iii) Rebroadcast stations at many different sites

iv) National news bureau at Islamabad and news units at all the PTV centres and also at Faisalabad, Hyderabad, Multan, Sukkur, Muzzafarabad and Abbotabad

v) Central sales office at Karachi and sales units at Lahore, Islamabad, Peshawar, Quetta, Multan, Faisalabad, Hyderabad and Gujranwala.

The Head quarters office comprises 10 divisions, namely:

1) Programmes

2) News

3) Finance, Sales and Revenue

4) Engineering

5) International Relations

6) Educational Television

7) Current Affairs

8) Sports

9) PTV Academy

10) Admnistration & Personnel

CHAPTER TWO

THE EXISTING SYSTEM

2.1 INTRODUCTION

At the start of each quarter, a quarterly schedule for programme transmission is made on the basis of a General Managers' Conference held in the PTV Head Quarters and attended by representatives from all the centres. These meetings take into account the overall performance of PTV. Ideas for new programmes are presented, explored and approved. Decisions regarding the continuation or curtailment of currently televised programmes are also taken on the basis of their popularity and impact on general public.

On the basis of these quarterly meetings, MASTER FIXED POINT CHART and PROGRAMME ORIGINATION SCHEDULE are drawn. Hence, the present system of programme scheduling is a manual one.

2.1.1 PROGRAMME ORIGINATION SCHEDULE

Programme Origination Schedule shows the origination load of all the centres during a quarter. This

information is presented in a tabular form where a week-no is assigned to each week under which the originating centre of each programme is indicated. This schedule has great significance as it intimates each centre about its transmission load; especially its share of shared originations. Shared originations are those which are telecast by different centres during different weeks of a quarter e.g. Bismillah & Baseerat has a shared origination as it might be telecast by Karachi during the first week of July and by Quetta during the second week.

2.1.2 MASTER FIXED POINT CHART

Fixed Point Chart is a time schedule that is drawn for one week only and holds for all the weeks in a quarter. In this schedule, time slots are allocated for the transmission of programmes for each day of the week. The time of transmission of each programme is fixed for the entire quarter; hence the name Fixed Point Chart. Details like duration and originating centre of a programme are also mentioned.

2.1.3 DAILY CUE SHEET

Daily Cue Sheet is a detailed account of the actual transmission that takes place on any date. It contains information such as the time of telecast, duration, episode number and sub-title of a programme as well as its participants.

Information regarding the Video and Audio sources, different announcers and producers as well as the language in which different programmes are telecast is also given. It should be noted here that, in general, the pattern of transmission in daily cue sheets is the same as in the fixed point chart.However, there are instances when this might not be so. Routine transmission might have to be re-adjusted to accomodate some programme of an urgent nature. Moreover, these cue sheets also contain a few emergency kits so that if some centre fails to telecast a programme, some other programme can be televised instead.

2.2 PROBLEM DEFINITION

Pakistan Television is a very big organization

with a multi-million budget. As the most powerful medium of communication in the country, with its beams covering 82% of the population, PTV has a special responsibility to impart education, information and entertainment to the people.

This means that every minute of PTV transmission is a precious national resource and hence is a sacred trust. Therefore, it is of utmost importance to analyse how this time is spent and how it can be more effectively utilized.

PTV management is striving to improve its present system. One of the major instances when information is urgently needed is to answer queries raised in the National Assembly about PTV transmissions. It is not uncommon to find such issues being discussed like the total duration of religious programmes on TV or too much time being given to imported movies that do not reflect our culture and values of life. In response to such queries, PTV management has to search through dusty files to come up with the required information. Moreover, since at the moment there is no system in PTV that recognizes information as a resource and

handles it accordingly, therefore, there is no categorization of information.

In view of the above considerations, it was felt necessary to computerize the present manual system of PTV scheduling. The computerization of this system would yield the following benefits :

* fast and efficient retrieval of information
* an insurance that correct information is maintained
* break-down and categorization of information
* generation of many much needed reports for the management
* help in analyzing the overall performance of PTV

2.2.1 Problems in the existing system

The existing system of Programme Scheduling is manual and is based on the conventional file environment. Hence, as in any manual system, there is much room for improvement. Some of the problems faced by PTV personnel in this regard are discussed below :

a) Lack of readily available information

Due to the manual file system, PTV personnel has to face the problem of lack of readily available information. Such a situation arises when, for instance, questions are raised in the National Assembly on various issues concerned with PTV transmissions. To answer such queries, PTV at the moment has no proper system.

b) Lack of a central database

There is lack of a central database of information regarding programme scheduling. The advantage of such a database is that it handles information as a resource. The result is fast, easy and efficient retrieval of information.

c) Wastage of storage space

In the present system, there is great wastage of storage space since the same information is repeated many times e.g. there are certain programmes that are televised daily at fixed times like Khabarnama and News in English. In the manual system, we store this information as many times as it occurs thus leading to wastage of stationary.

d) Problems in searching

As the system is manual, problems arise in searching for the required information. This results in wastage of time.

e) Rigidity in the system

The present system is rigid in the sense that it allows the user to look at information from a fixed angle only. While the same system when computerized enables the user to view information from many different angles.

f) Problems in modification

The manual system also suffers from problems in updation and modification. Since the same information is repeated in many different places hence if any change occurs, it has to be accomodated in more than one place. For instance, if the name or time of telecast of a programme changes, it will lead to inconvenience for the user.

g) Lack of proper categorization of information

Information regarding programme scheduling needs to be properly categorized. At the moment, there is no

breakdown of information like the subdivision of transmission time w.r.t different

- classes of viewers
- ages of viewers
- categories of programmes

and so on.

CHAPTER THREE

THE PROPOSED SYSTEM

3.1 INTRODUCTION

After taking an overall view of PTV programme scheduling, it becomes apparent that the management has to face a number of problems in supplying quick responses to queries and generation of reports. Therefore, to increase the efficiency of the present system, a computerized system has been proposed. This system has been designed keeping in view the following considerations :

3.2 OBJECTIVES OF THE SYSTEM

i) Easy availability of information

In today's fast moving world, time is a precious resource that should not be wasted. Hence, the proposed system has been designed in such a manner that it facilitates easy flow of information.

ii) Elimination of redundancy

The elimination of data redundancy implies that the same data is not kept in more than one place so as to

avoid inconsistency. Keeping this in view, great care has been taken while designing the new system so that it is in a normalized form.

iii) Efficient updation mechanism

The new system should have an efficient updation mechanism. This implies that a change in data in one place should not invalidate the same data stored elsewhere e.g if the name "Khabarnama" changes to "Khabrain" we need change the information only once and this change will be accomodated wherever this information occurs.

iv) Provision of data integrity

The proposed system strives to maintain data integrity. For this purpose, it not only uses a number of data validation checks but also eliminates data redundancy.

v) A user-friendly system

An effort has been made to make the system user-friendly so that even those people who have limited knowledge of computers can use it. Codes have been used wherever possible. This lightens the burden on the person

entering the data besides saving time and memory. Separate screens have been designed for displaying codes which can be accessed whenever needed by the user. Moreover, when the user enters the code of a programme, the programme name is automatically displayed. This helps the user to identify errors that might occur during data entry. Hence, any information that was not entered properly, can be corrected.

vi) A flexible system

The proposed system is a fairly flexible system as it has been intended to serve as a foothold for subsequent computerization in PTV. For instance, the PTV management needs to computerize its budgeting system. However, it was not possible to carry out computerization of programme budgeting unless all related information regarding programme scheduling had already been made available on the computer. Hence, the new system has paved the way for computerization of other PTV systems that are related to programme scheduling and transmission.

3.3 WORKING OF THE SYSTEM

The proposed system is also based on the three main features of the manual system i.e Programme origination schedule, Fixed point chart and Daily cue sheet.

As already discussed, Fixed point chart is a fixed schedule for one week that is supposed to be followed throughout the quarter. Programme origination schedule contains information regarding the week-no and originating centres of programmes while daily cue sheets give a detailed account of the actual day-to-day transmission.

The proposed system also draws its inputs from these three sources. The computerized system can be broken down into 4 major parts all of which have been interconnected by menus. These are

i) File creation

ii) File maintenance

iii) Code designing

iv) Query/Report generation

3.3.1 FILE CREATION

File creation is the first step in any computerized system. In the proposed system, file creation is synonymous with file initialization since each file is initialized with a dummy record. A detailed account of file designing is given in the next chapter.

3.3.2 FILE MAINTENANCE

File maintenance occupies a central position in any system. In the proposed system, file maintenance is carried out with the help of

- Insertion
- Modification
- Deletion

Insertion

After the files have been initialized, insertion of records has to take place. For this purpose, efforts have been made to make data entry quick, efficient and error-free. For instance, entries have to be made in the Master

Fixed Point Chart for various days. All the entries to be entered in a record have been accomodated on a single screen. Different modules have been created for the correct entry of time and date. For instance, if by mistake, the user has entered a time or a date that does not exist like the 31st of February, the system would not accept it. Moreover, even if the entry made is correct in the sense that it exists but is not correct from the user's point of view, the system would repeatedly ask the user about the validation of data until it gets a positive response.

Modification

There are separate sub-routines for modifying the already existing information. Since a major source of information is the Fixed Point Chart that remains constant for the entire quarter, need for modification arises when the PTV management decides to alter its transmission schedule.

Deletion

At times, it may happen that some information

becomes obsolete. For instance, the management may decide to stop the transmission of a programme like 'Excuse Me' due to some reason. In such a case, it might be needed to delete all information related to that programme. To carry out this job, deletion procedures have been written.

3.3.3 CODE DESIGNING

Special consideration has been given in the proposed system to the generation of codes. Codes have been devised wherever found feasible e.g. for weekdays, centre names, programme names and different categories of programmes. Codes for programme names have special significance. It was decided to generate these codes due to the following considerations :

a) the length of programme names generally varies. While it might be 4 characters in some instances, in others it could even be 33 characters. In contrast, the different codes devised take 1 - 3 characters. This simply goes to show the time and memory wastage that would occur if the actual programme names were used.

b) Entering the entire programme name whenever it occurs would be cumbersome for the user.

c) Using codes instead of programme names ensures not only correct data entry but also fast and efficient retrieval. As the majority of programmes being televised are in Urdu, their names have to be spelled in English for data entry. The problem arises due to the numerous choices available for spelling the same name. Moreover, even while entering the same spellings, it is possible that the user gives a few extra blanks or does not enter the exact number of blanks as before. In such a case, previously stored information would not be accessed.

In view of the above considerations, special care was taken in generating codes for programme names. An interesting feature in this regard is that the user need not assign a code to a programme name. Rather, it will be automatically generated by a separate program that handles programme information.

3.3.4 QUERY/REPORT GENERATION

Report generation is another significant feature of the new system. At present, in the manual system, no reports are produced as such. Whenever information is needed by the management, it has to go through old files and papers in an effort to collect the relevant information. The proposed system provides the facility of report generation in addition to answering on-line queries on the console.

CHAPTER FOUR

SYSTEM DESIGN

4.1 INTRODUCTION

In the last chapter, we had briefly discussed the proposed system. In this chapter, we will discuss the design of the proposed system in detail. While designing the new system, the aims and objectives of the organization have been fully kept in mind. Care has been taken to design a system that is quick, efficient and user-friendly.

The basic function performed by the proposed system is the generation of reports and the answering of queries. In order to design a system, it is a must to keep in mind the outputs required. These are as follows :

4.2 OUTPUTS

i) Daily Programme Schedule for any day of the week from the Fixed Point Chart giving information about time, programme name, duration and centre.

ii) Total origination of a centre in a week, month or quarter by programme name, duration and category.

iii) Updation of Daily Programme Schedule w.r.t date and entry of additional information like sub-title, episode number and artists' names.

iv) Origination of shared programmes by centre on a particular date.

v) Share of each centre of shared programmes in a quarter.

vi) Sub-title of imported films/programmes on any date.

vii) Total duration of programmes in any category.

On-line response to these queries as well as written reports are required by the management.

4.3 INPUTS

In order to generate the required outputs, the system gets information from three basic sources i.e Master Fixed Point Chart, Programme Origination Schedule and Daily Cue Sheets. These three provide information regarding the time and date at which a programme has to be televised,its originating centre, sub-title, episode number, category,

participants and so on. Similarly, we get information regarding the origination of shared programmes from Programme Origination Schedule.

In order to get the required outputs, we need to feed the inputs to the computer in an adequate manner. For on-line entry of data, input screens have been designed keeping in view the convenience of the user. Moreover, data validation checks have been imposed at each stage to ensure correct data entry.

4.3.1 CODE DESIGNING

In the proposed system, codes have been designed whenever found feasible. This has been done to save time and memory, to make information retrieval quick and efficient and to make data entry easier for the user.

The codes have been designed for the following data items :

Programme Names

The system uses codes instead of programme names.

To avoid duplication as well as inconvenience to the user, these codes are automatically generated by the system.

WEEKDAYS

Instead of entering the entire name of a weekday, the user needs to enter three alphabets only. The codes designed for weekdays are SAT, SUN, MON, TUE, WED, THR and FRI.

CENTRES

Programmes are telecast by different centres like Karachi, Lahore, Islamabad, Quetta, Peshawar and the Head quarters. Moreover, some of the programmes are locally produced and televised and hence fall under the title 'Elaqai'. Codes have been devised for the centres by taking the first alphabet of their names.

CATEGORY

Programmes telecast by PTV fall under different categories like Music, Sports, Drama, Religious and so on.

There are 19 categories of transmission in all. Some of them like Current Affairs, Imported programmes and Special Audience take upto 19 characters. Codes consisting of two alphabets have been used to denote different categories.

FREQUENCY

Programmes are telecast by PTV with varying frequency. While some programmes like Bismillah & Baseerat are televised daily, there are others that might be telecast weekly, fortnightly, monthly or occassionally. Alphabetic codes (D, W, F, M, O) of length one character have been used to denote different frequencies.

WEEKNOS

The Programme Origination Schedule gives information about the originating centre of a programme for each week of a quarter. The first quarter of the year starts from the first Saturday of July. Hence, to record the information given by the Programme Origination Schedule, we need to store the starting and ending dates for each week alongwith related information. This was not considered to be

a feasible solution. Therefore, weeknos. have been allocated for all the weeks of a transmission year commencing from the first Saturday of July. To save the user from the cumbersome task of entering the starting and ending dates for 53 weeks, a very efficient program has been written. The user only has to enter the starting date of the first week. All subsequent dates and their related week nos are automatically calculated by this program.

TIME

Codes consisting of a single alphabet have been used to denote AM or PM. The user only has to enter 'A' or 'P' and 'AM' or 'PM' appears on the screen.

A very important point regarding the above mentioned codes is that the proposed system has been designed in such a manner that it will only accept a code that exists. Moreover, it also asks the user whether correct information has been entered. All these checks have been imposed to ensure data validity.

4.4 FILE DESIGNING

File designing is the most vital part of any proposed system. It is the foundation on which the entire system rests. Therefore, great care was taken while undertaking the file designing of this project. To avoid problems such as data redundancy, insertion, updation and deletion anomalies and to ensure data integrity, the proposed system has been normalized.

Files can be organized as

- Sequential
- Indexed sequential
- Relative / Direct

Proper file organization helps make the system efficient. In the proposed system, a few short files (containing a small number of records) have been created as sequential files. The majority of files have been created in the ISAM mode, mainly due to its facility of information retrieval on secondary keys.

The details regarding file designing are given

below :

4.5 FILE LAYOUTS

The proposed system has 12 files in all. These are

- Seven weekday files for seven days of the week
- Daily transmission file
- Programme-code file
- Shared programme information file
- Date-weekno. file
- Save-code file

A brief description of file layout is given below :

WEEKDAY FILES

These files are used for storing the information given in the Fixed Point Chart i.e. the time of telecast, the originating centre and all the programmes to be televised at that particular time during the whole quarter. Hence, an option has been given to enter 3 programme codes. For instance, during the quarter Oct _ Dec 1989, at 7:20 on each Thursday, either 'Perfect Strangers' or 'Full House'

are to be televised. Hence, provision has been made to accomodate more than one programme code for any time slot.

It should be noted here that instead of seven files, only one file could have been made for week_days with the addition of one more field i.e the name of day. However, that would have meant repeating the day_name for all the programmes that are to be televised on the same day. This was not considered to be feasible since it would have led to memory wastage and inconvenience for the user. Moreover, the present file design was considered to be better as it would make information recording more systematic and hence, its retrieval more quick and efficient.

The other six weekday files have the same format as the file Sat.cbl.

FILENAME : SAT.CBL PRIMARY KEY : TYME

RECORD LENGTH : 15 NO OF FIELDS : 5

RECORD NAME : REC1 SECONDARY KEY (i) CENTRE

LEVEL NO	FIELD NAME	DESCRIPTION	LENGTH	TYPE
02	TYME	TIME		
03	AM-PM	MERIDIAN	1	AN
03	HRS	HOURS	2	AN
03	MNTS	MINUTES	2	AN
02	CENTRE	CENTRE	1	AN
02	PC1	PROG. CODE	3	AN
02	PC2	"		
03	PC2-1	"	1	AN
03	PC2-2	"	2	AN
02	PC3	"		
03	PC3-1	"	1	AN
03	PC3-2	"	2	AN

DAILY TRANSMISSION FILE

This file records the information that is given in the Daily Cue Sheet. Actually, it is retrieval or in certain cases, an updation of information given in the Master Fixed

Point Chart for any day. While entering data in this file, the user first enters the date and the day. A sub-routine then transfers control to the corresponding weekday file. Information already given in the Master Fixed Point Chart i.e time, centre and programme codes are transferred from the weekday file to this file. The user has an option to modify any information if he so desires. Moreover, some additional information like sub-title, episode number and the participants of a programme is also recorded here.

An important point to note here is that we never modify the information given in the weekday files since it is taken from the Fixed Point Chart that remains constant for the entire quarter. Hence, any change that occurs is on a day_to_day basis and is recorded as such.

FILENAME : DAY-F.CBL PRIMARY KEY : DATE1

RECORD NAME : D-REC

RECORD LENGTH : 202 NO OF FIELDS : 11

SECONDARY KEYS (i) CENTRE1 (ii) SUB-TITLE

LEVEL NO	FIELD NAME	DESCRIPTION	LENGTH	TYPE
02	DATE1	DATE		
03	DAY	DAY	2	AN
03	MONTH	MONTH	2	AN
03	YEAR	YEAR	4	AN
03	PROG-CODE	CODE	3	AN
02	DAY2	WEEKDAY	3	AN
02	SUB-TITLE	SUBTITLE	30	AN
02	EPS-NO	EPISODE NO	2	N
02	N1	PARTICIPANT	30	AN
02	N2	"	30	AN
02	N3	"	30	AN
02	N4	"	30	AN
02	N5	"	30	AN
02	TYME	TIME		
03	AM-PM	MERIDIAN	1	AN
03	HRS	HOURS	2	AN
03	MNTS	MINUTES	2	AN
02	CENTRE1	CENTRE	1	AN

PROGRAMME CODE FILE

This file stores most of the information related to programmes i.e. their names, codes, duration, category and day of telecast. It is used in most of the application

FILENAME : PC.CBL **PRIMARY KEY : CODE1**

RECORD LENGTH : 44 **NO OF FIELDS : 5**

RECORD NAME : PROG-REC

SECONDARY KEYS (i) DAY1 (ii) CATEGORY

(iii) PROG-NAME (iv) DURATION

LEVEL NO	FIELD NAME	DESCRIPTION	LENGTH	TYPE
02	CODE1	CODE	3	AN
02	PROG-NAME			
03	PROG-NAME1	PROGRAM NAME	1	AN
03	PROG-NAME2	"	32	AN
02	DAY1	WEEKDAY	3	AN
02	CATEGORY	CATEGORY	2	AN
02	DURATION	DURATION	3	AN

programmes when information regarding programme names and their codes has to be displayed. Similarly, since the user

is only supposed to enter programme codes, provision has been made by the system to decode these codes and display the corresponding programme name.

SHARED PROGRAMME INFORMATION FILE

This file records information regarding shared programmes from the Program Origination Schedule. Each comprises of 4 fields i.e programme code, frequency of

FILENAME : S-PROG.CBL PRIMARY KEY : PROG-WK

RECORD LENGTH : 7 NO OF FIELDS : 3

RECORD NAME : SP-REC

SECONDARY KEYS (i) FREQUENCY (ii) CENTER

LEVEL NO	FIELD NAME	DESCRIPTION	LENGTH	TYPE
02	PROG-WK			
03	P-CODE	PROGRAM CODE	3	AN
03	WK-NO	"	2	AN
02	FREQUENCY	FREQUENCY	1	AN
02	CENTER	CENTRE	1	AN

telecast, originating centre and the weekno. in which the programme has to be televised. The combination of Programme code and weekno serves as a primary key.

SAVE CODE FILE

Since codes for programme names are automatically generated by the system, therefore, there is a need to save the last code. For this purpose, a separate file has been created that records this information. Whenever the user enters new information in the PC file about a programme, information in the SPC file is automatically updated.

FILENAME : SPC.CBL **PRIMARY KEY : CODE-ID**

RECORD LENGTH : 4 **NO OF FIELDS : 2**

RECORD NAME : REC1

LEVEL NO	FIELD NAME	DESCRIPTION	LENGTH	TYPE
02	CODE-ID	IDENTIFYING CODE	1	AN
02	SAVE	TO SAVE CODE	3	N

DATE-WEEKNO FILE

This file contains information regarding the starting and ending dates that constitute a week. Since, a new quarter commences from the first Saturday of July, that is the starting date for the first week and so on. In this file, the weekno. has been taken as a primary key. The file has been organized in the Indexed Sequential Access mode to

FILENAME : DATE-F.CBL PRIMARY KEY : WEEKNO

RECORD LENGTH : 18 NO OF FIELDS : 3

RECORD NAME : DT-REC

SECONDARY KEYS (i) DATE1 (ii) DATE2

LEVEL NO	FIELD NAME	DESCRIPTION	LENGTH	TYPE
02	WEEK-NO	WEEK-NO	2	AN
02	DATE1	DATE		
03	D1	DAY	2	AN
03	M1	MONTH	2	AN
03	Y1	YEAR	4	AN
02	DATE2	DATE		
03	D2	DAY	2	AN
03	M2	MONTH	2	AN
03	Y2	YEAR	4	AN

facilitate random access of information.

4.6 QUERIES

The manner in which information is retrieved from the above files to generate responses to different queries is briefly discussed below :

(i) Daily Programme Schedule for any day of the week from Fixed Point Chart giving information about time, programme name, duration and centre.

This query gets information from the weekday files SAT, SUN, MON, TUE, WED, THR and FRI about time, originating centre and programme code. Programme code is then decoded and the corresponding programme name and duration is displayed by getting information from the code file PC.

(ii) Updation of Daily Programme Schedule w.r.t date and entry of additional information like sub-title, episode number and participants' name.

The Daily Programme Schedule chalked out in the Master Fixed Point Chart frequently needs to be updated and

modified for day_to_day transmission. For this purpose, information about time, centre and programme code is transferred from the corresponding weekday file to a dayfile Day-F. The user can modify this information if required. Moreover, additional information about sub-title, episode no. and participants' names can also be given.

(iii) Total origination of a centre in a week, month or quarter by programme name, duration and category.

To generate this information, file Day-F is scanned alongwith file PC w.r.t the starting and ending dates of the duration for which the origination of a centre has to be known.

(iv) Origination of shared programmes by centre on a particular date.

With respect to the required date, file Day-F is read alongwith file PC and information about the originating centre of a shared programme is made available.

(v) Share of each centre of shared programmes in a

quarter.

Many programmes telecast by PTV are shared in the sense that they are produced by more than one centre. Hence, information about the originating centre of such programmes might change from week_to_week. Therefore, to answer this query, files S-Prog and Date-F are consulted alongwith PC.

(vi) Sub-title of imported films/programmes on any date.

Since, in this query, information retrieval is required on the basis of a certain date , files Day-F and PC are used for the purpose.

(vii) ***Total duration of programmes in any category.***

Since file PC contains information about programme names, their duration and the category in which they fall, this file is accessed alongwith file Day-F.

CHAPTER FIVE

SOFTWARE DEVELOPMENT

5.1 INTRODUCTION

After the system study and file designing, comes the phase of software development. Software development is very important in the sense that it takes up the major portion of time that is given to the undertaking of any project. Moreover, developing software is not simply a science; it is an art too.

5.2 LANGUAGE SELECTION

In software development, language selection is of vital importance since it determines the boundries within which one has to work. For the project undertaken, language selected is RM COBOL. This selection was made on the basis of the following considerations :

i) The problem at hand is of a commercial nature where large amounts of data I/O but little processing is required. Since, COBOL as a business oriented language has been developed keeping this factor in view, it was given

preference.

ii) Programmes developed in RM COBOL are portable and can be run on a mainframe with a few minor changes. Since PTV is in the process of acquiring a mainframe, the question of portability had to be kept in mind.

iii) COBOL provides special facilities where files are concerned. Its file handling capabilities exceed those of other programming languages.

5.3 SOFTWARE DEVELOPMENT

A number of programs have been written for the implementation of the proposed system. All these programs have been interconnected and are accessed whenever needed through a main menu. A brief description of these programs and the functions performed by them is given below :

(i) Time

This sub-routine has been written for the correct entry of time. To ensure the validity of time entered, various checks have been imposed so that the user can only

enter hours within the range (1 _ 12) , minutes within the range (0 _ 59) and only A or P (AM/PM) to indicate morning or evening transmission.

(ii) Date

This sub-routine is called whenever date has to be given by the user and it does not curtail its execution until the correct date has been entered.

(iii) Codeint

This program initializes the codefile PC and the file that saves the last generated code i.e SPC.

(iv) Cd-entry

This program is used to make the data entry in the codefile PC. It first picks the last generated code from the file SPC and then increments it to generate a new code. The program uses a number of checks to accept only such information about day, category and duration that actually exists. For instance, if the user enters a non-existent code, it will keep prompting the user for correct information. Moreover, even if the user enters a code that

has been defined, the system would still repeatedly ask the user about data validity until it gets a positive response.

(v) Weekint, Satint, Sunint, Monint, Tueint, Wedint, Thrint, Friint

These programs initialize different weekday files i.e SAT, SUN, MON, TUE, WED, THR and FRI.

(vi) Satdata, Sundata, Mondata, Tuedata, Weddata, Thrdata and Fridata

All these programs are used to store the information given in the Master Fixed Point Chart regarding programme transmission on each day of the week. For instance, SATDATA stores information regarding Saturday and so on .

(vii) Schedule, Acc-sat, Acc-sun, Acc-mon, Acc-tue, Acc-wed, Acc-thr, Acc-fri

Schedule is a sub-routine that helps in answering the first query regarding programme transmission on any day. In its turn, it calls one of the procedures Acc-sat, Acc-sun, Acc-mon, Acc-tue, Acc-wed, Acc-thr and Acc-fri

corresponding to the weekday whose transmission schedule has been asked.

(viii) Dailyprg

This program initializes the daily transmission file Day-F.

(ix) D-Entry, Sat-Entry, Sun-Entry, Mon-Entry, Tue-Entry, Wed-Entry, Thr-Entry and Fri-Entry

D-Entry is a sub-routine that accepts information regarding date-wise transmission. Its control can branch to 7 different sub-routines i.e Sat-Enrty, Sun-Entry, and so on which transfer information of the required day from the corresponding weekday file to file Day-F. The user, then, gets an option to modify this information and enter additional information if required.

(x) Retrieve

This program retrieves information given in the Day-F file corresponding to any date.

(xi) Shareint

It initializes the shared programme file S-Prog.

(xii) Sh-Entry

This sub-routine enters information in S-Prog file from the Programme Origination Schedule. It records information about frequency of telecast, programme code, week-no as well as the centre producing the program.

(xiii) Newdisp, Acc-code, Cdisplay

These are a few sub-routines that are frequently called when information about programme names, their codes and day of transmission needs to be made available to the user.

(xv) Dates

This is a very efficient program. It has the facility to generate the starting and ending dates of all the weeks in a transmission year when the user enters the date on the first Saturday of July. This information is recorded in file Date-F. It is a very efficient module that takes into account the number of days in each month, especially in February as well as the change in year that occurs in the middle of each transmission year. This module greatly simplifies the data entry task for the user.

(xvi) Sh-Query, Nm-Query, Query3, Sh-Share, Dur-Query

These sub-routines are executed to generate information for satisfying various queries. Most of them get their information from datafiles Day-F and PC. Moreover, files Date-F and S-Prog are also accessed in certain cases.

(xvii) Scrin, Scr

These sub-routines are called whenever any screen designing needs to be done.

(xviii) Modifycd

This sub-routine is called whenever any information regarding a programme like its name, duration, category or day of telecast has to be modified.

(xix) Delcode

This sub-routine is executed if the management wants to delete all information concerning a programme.

(xx) Acc-cat, Acc-day, Acc-freq, Acc-cnt, Acc-week

These sub-routines are frequently called to

display codes corresponding to different parametres such as category, weekday, frequency, centres and starting and ending dates of a week.

(xxi) Menu, Int-menu, Int-fpc, Intdaily, Mnt-menu, Weekdata and Queries

These are the menus that interconnect different programs to present them as one system.

(xxii) Caution, Caution2

These messages are displayed to warn the user at appropriate times. For instance, Caution is displayed to caution the user to generate all programme codes before making data entry anywhere while Caution2 warns the user not to initialize the daily programme file without taking a backup of the old data file.

CHAPTER SIX

IMPLEMENTATION

6.1 TESTING

The last phase in the development of a new system is its testing. Though any system that is developed is frequently tested with dummy data, many of its flaws do not come to light until real data is used. Hence, to ensure that the system developed can operate efficiently, it was thoroughly tested with real data. This helps in making the system error-free and ensures its smooth functioning after implementation.

6.2 IMPLEMENTATION

After a system has been thoroughly tested and found reliable, it has to be implemented. For this purpose, a suitable changeover technique has to be selected.

The techniques that are normally adopted for system conversion are

- Direct

- Parallel
- Pilot
- Phased

A conversion method is chosen keeping in mind various factors such as the size, the financial position and the requirements of an organization.

The changeover technique that has been chosen for PTV is the Parallel conversion method. In this method, the new system is made operational while the old system still continues to function for some time. Though this method involves more cost and labour, it is more appropriate for PTV due to several reasons :

- The clerical staff of PTV is not very well-versed with computers. Although, they have been given a few orientation lectures on computers yet it will take them some time to adapt themselves to a new system.

- Since Updated Programme Schedule has to be made on a daily basis, the adoption of a direct changeover method

might lead to problems.

- The simultaneous running of two systems will help in evaluating the performance of the new system. Any cross checking of information can thus be easily done. Hence, if any change needs to be made in the new system, the performance of the organization is not adversely affected.

6.3 FUTURE EXTENSIONS

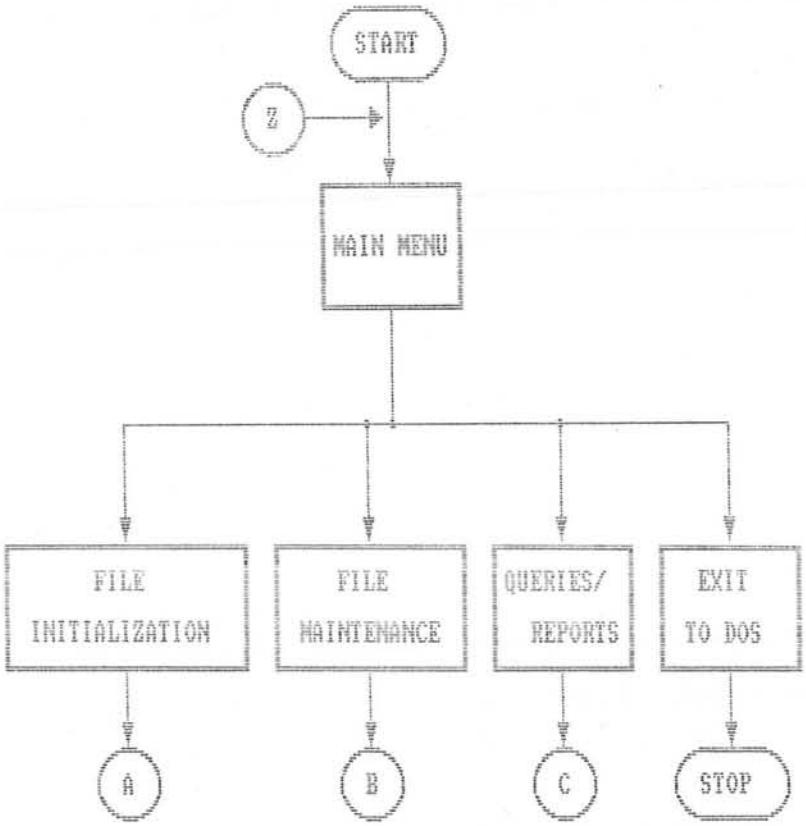
The most vital feature of the new system is that it has paved the way for subsequent computerization of other systems related to Programme Scheduling and Transmission.

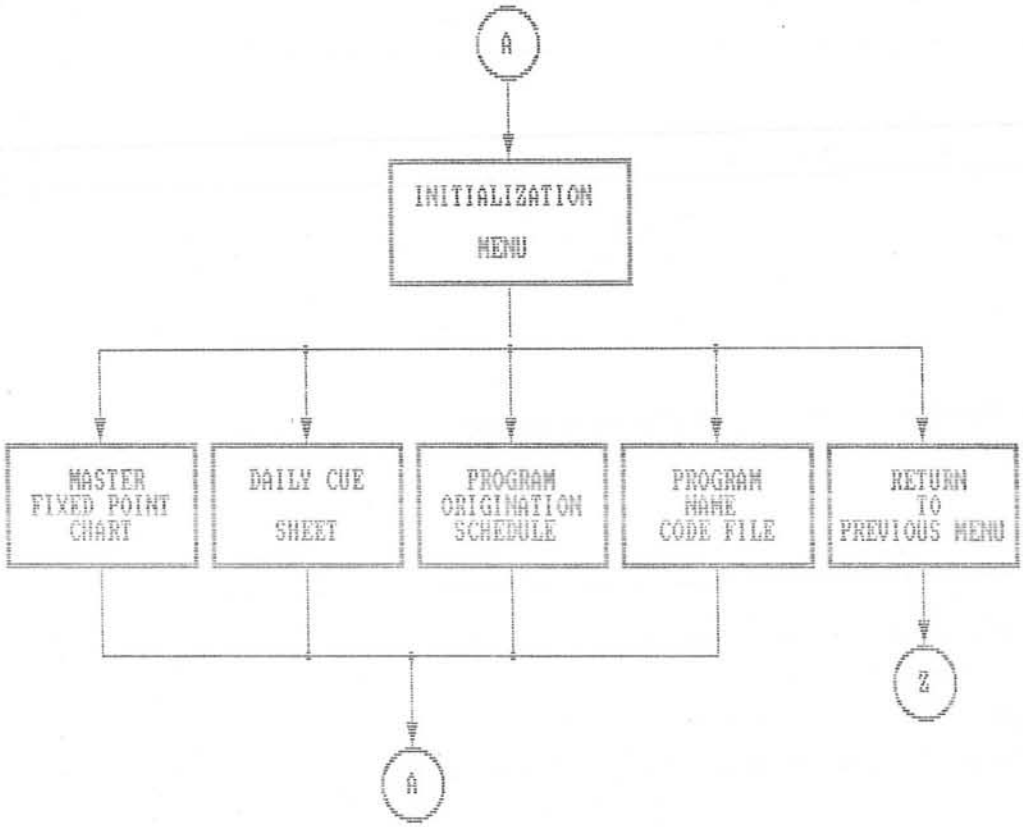
For instance, Programme Budget Estimates are drawn for each quarter by different centres on the basis of Programme Origination Schedule. Programme Budgets are allocated to the centres on the basis of these PBEs. A count of the actual expenditure incurred is kept by the Finance Division. In order to exercise effective budgetry control, PTV needs to computerize this system. Now the

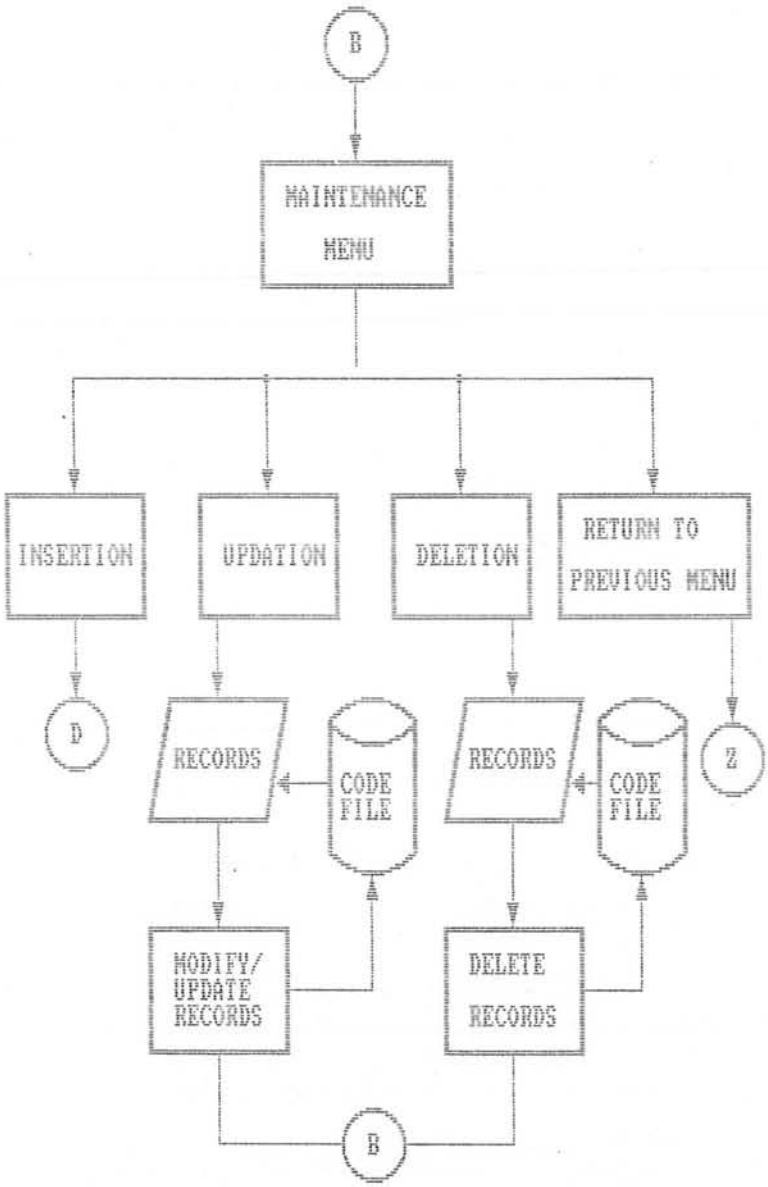
computerization of the system of Programme Scheduling and Transmission has made this possible.

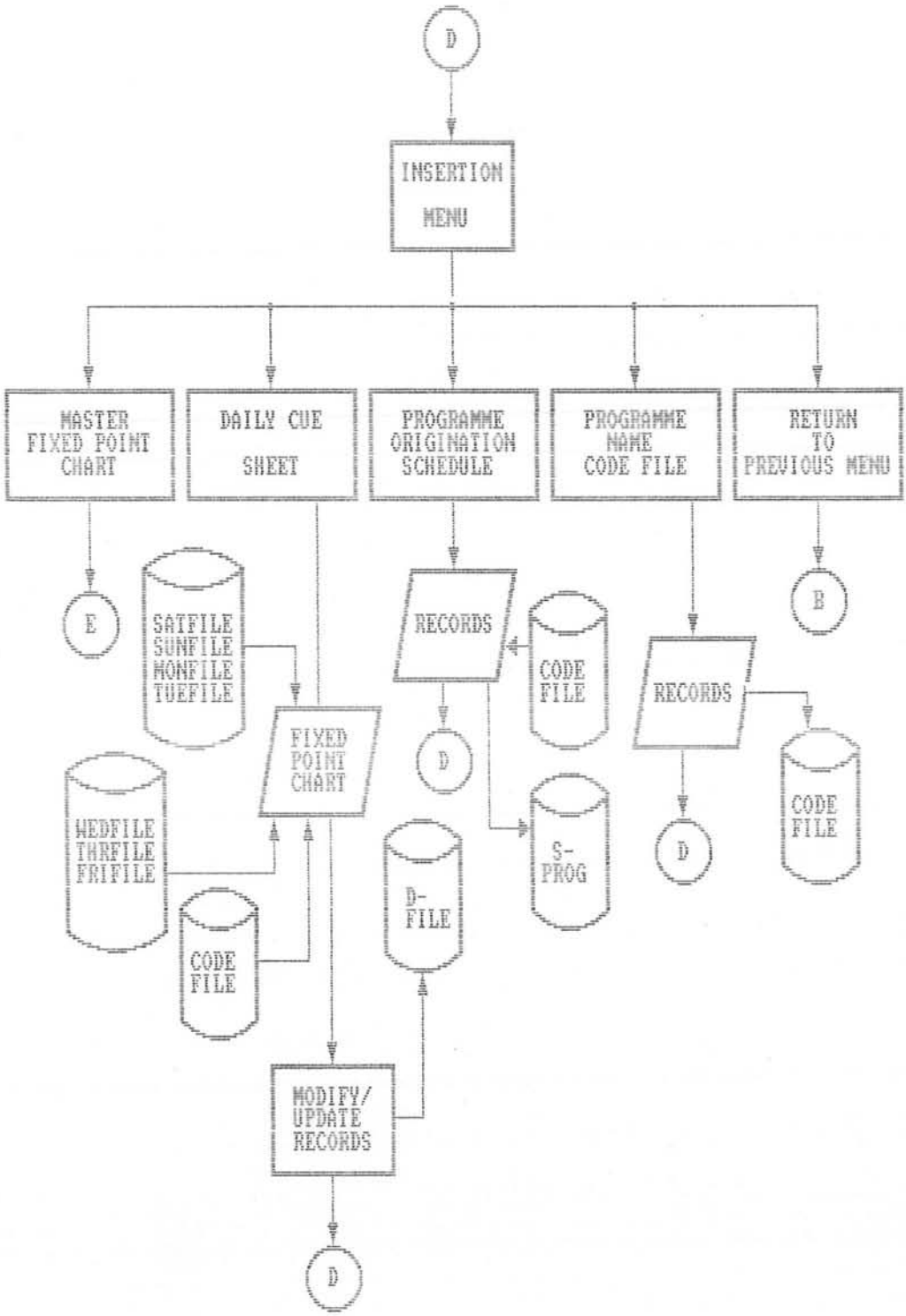
APPENDIX A

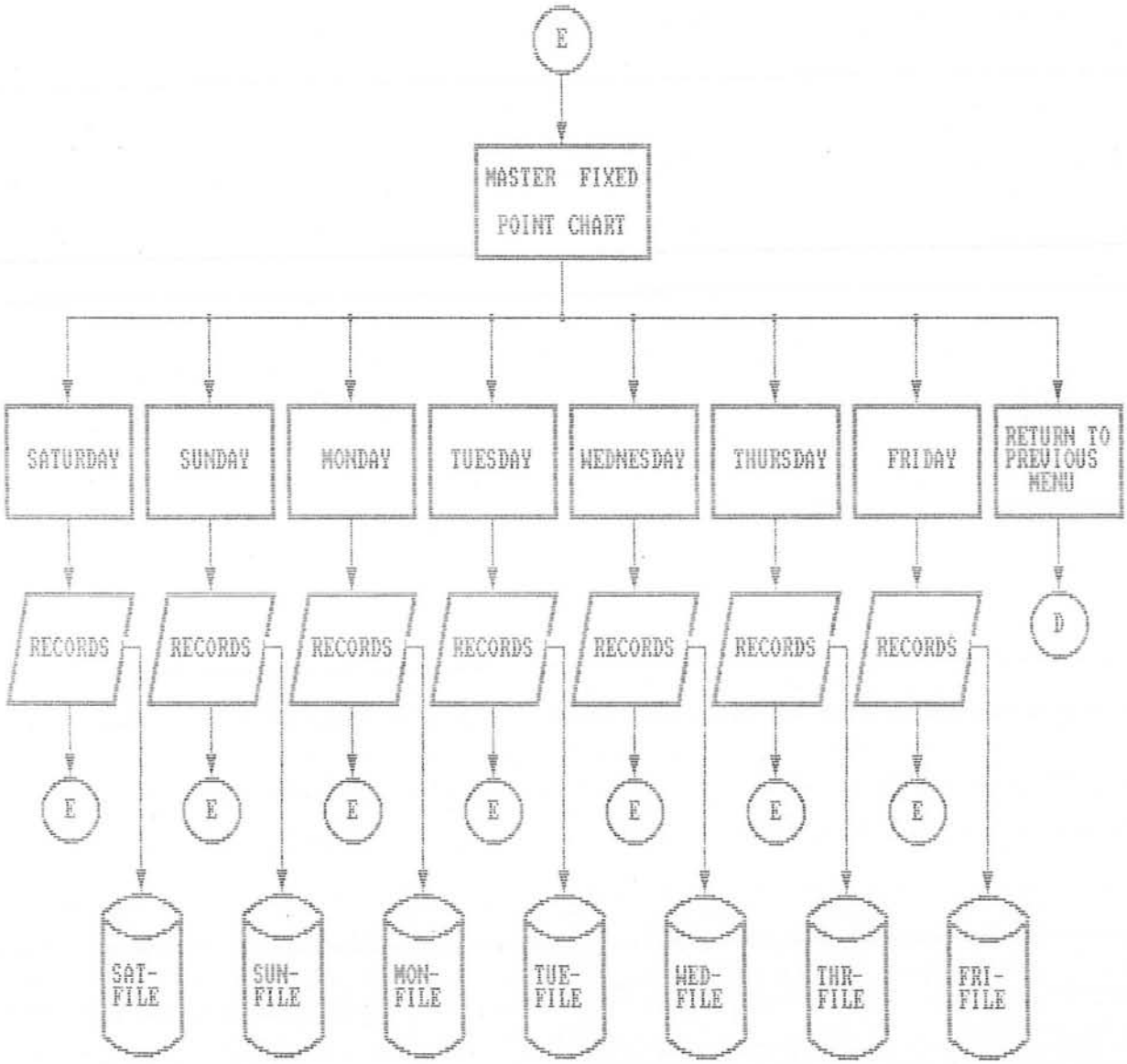
SYSTEM FLOWCHART

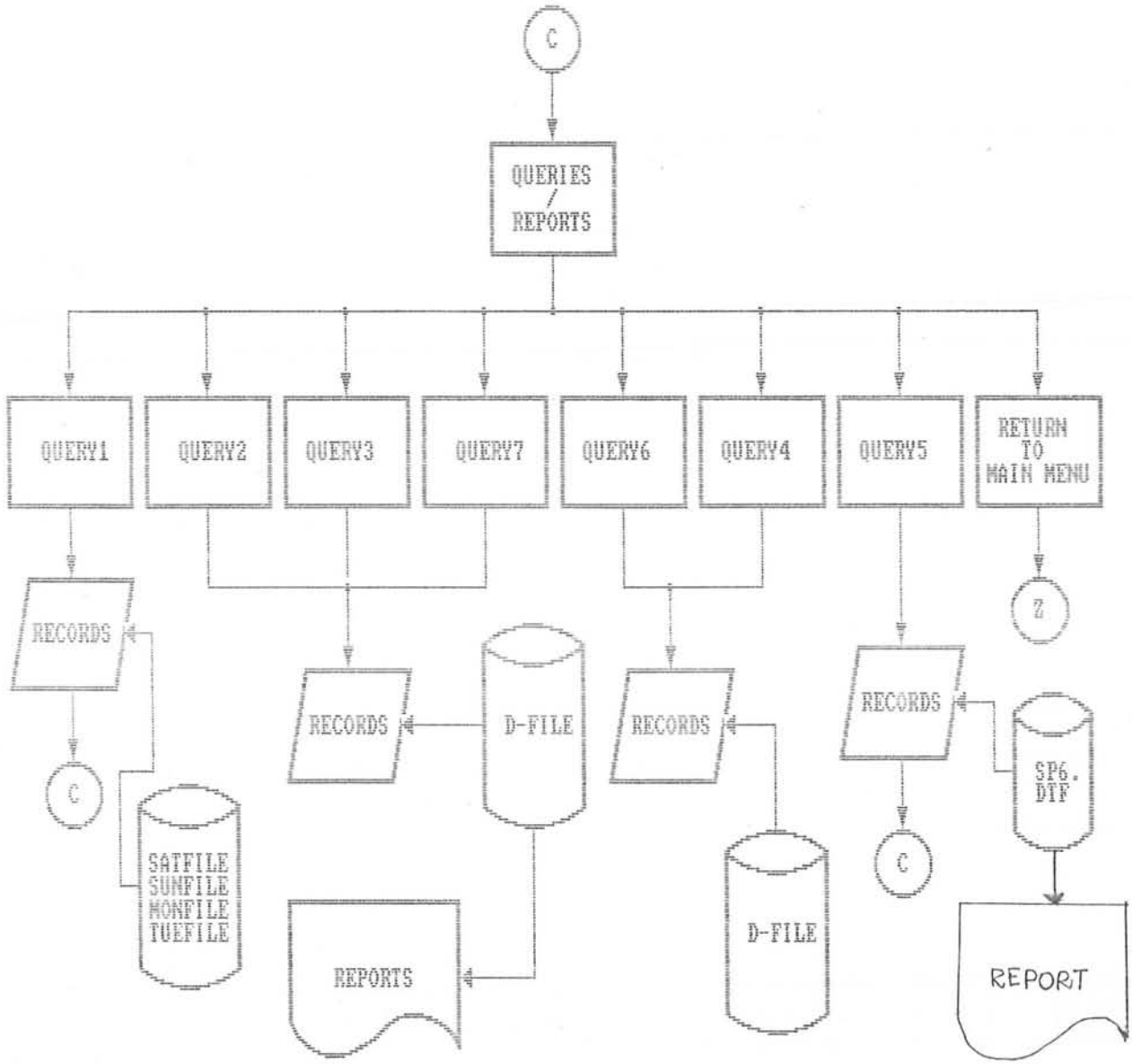

START
Z
MAIN MENU
FILE INITIALIZATION
FILE MAINTENANCE
QUERIES/ REPORTS
EXIT TO DOS
A
B
C
STOP


A
INITIALIZATION
MENU
MASTER
FIXED POINT
CHART
DAILY CUE
SHEET
PROGRAM
ORIGINATION
SCHEDULE
PROGRAM
NAME
CODE FILE
RETURN
TO
PREVIOUS MENU
Z
A


B
MAINTENANCE MENU
INSERTION
UPDATION
DELETION
RETURN TO PREVIOUS MENU
D
RECORDS
CODE FILE
RECORDS
CODE FILE
Z
MODIFY/ UPDATE RECORDS
DELETE RECORDS
B


D
INSERTION MENU
MASTER FIXED POINT CHART
DAILY CUE SHEET
PROGRAMME ORIGINATION SCHEDULE
PROGRAMME NAME CODE FILE
RETURN TO PREVIOUS MENU
E
SATFILE SUNFILE MONFILE TUEFILE
FIXED POINT CHART
WEDFILE THRFILE FRIFILE
CODE FILE
RECORDS
D
CODE FILE
S-PROG
D-FILE
MODIFY/ UPDATE RECORDS
D
B
RECORDS
CODE FILE
D


E
MASTER FIXED POINT CHART
SATURDAY
SUNDAY
MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
RETURN TO PREVIOUS MENU
RECORDS
RECORDS
RECORDS
RECORDS
RECORDS
RECORDS
RECORDS
D
E
E
E
E
E
E
E
SAT-FILE
SUN-FILE
MON-FILE
TUE-FILE
WED-FILE
THR-FILE
FRI-FILE



PLEASE REFER TO PAGE 21 FOR DETAILS ABOUT QUERIES.

APPENDIX B

CODES

PROGRAMME NAMES	CODES	DAY OF TELECAST
BISMILLAH & BASEERAT	001	ALL
AAJ KE PROGRAM	002	ALL
AIOU COURSES	003	ALL
URDU NEWS	004	ALL
AL-KITAB	005	ALL
ADVENTURES OF THE LITTLE PEOPLE	006	SAT
LAUREL AND HARDY	007	SAT
MERI KITAB	008	SAT
THE ADVENTURES OF TEDDY RUXPIN	009	SAT
TV ENCYCLOPAEDIA	010	SAT
CARTOON MAGZINE	011	SUN
FALCON ISLAND	012	SUN
LIPPY THE LION	013	MON
NAAT-E-RASOOL	014	ALL
SPORTS	015	FRI
SESAME STREET	016	FRI
TV CLINIC	017	FRI

NEXT SCREEN ==> PG DN.PRESS HOME TO EXIT

CODES FOR CENTRES

CENTRES	CODES
LAHORE	L
KARACHI	K
QUETTA	Q
PESHAWAR	P
ISLAMABAD	I
HEAD QUARTERS	H
ELAQAI	E

CODES FOR WEEK-NOS

STARTING DATE	ENDING DATE	WEEK-NO
01/07/1989	07/07/1989	01
08/07/1989	14/07/1989	02
15/07/1989	21/07/1989	03
22/07/1989	28/07/1989	04
29/07/1989	04/08/1989	05
05/08/1989	11/08/1989	06
12/08/1989	18/08/1989	07
19/08/1989	25/08/1989	08
26/08/1989	01/09/1989	09
02/09/1989	08/09/1989	10
09/09/1989	15/09/1989	11
16/09/1989	22/09/1989	12
23/09/1989	29/09/1989	13
30/09/1989	06/10/1989	14
07/10/1989	13/10/1989	15

NEXT SCREEN ===> PG DN

CODES FOR WEEKDAYS

SATURDAY	SAT
SUNDAY	SUN
MONDAY	MON
TUESDAY	TUE
WEDNESDAY	WED
THURSDAY	THR
FRIDAY	FRI

PREVIOUS SCREEN ===> PG UP

CODES FOR FREQUENCY

FREQUENCY	CODES
DAILY	D
WEEKLY	W
FORTNIGHTLY	F
MONTHLY	M
OCCASSIONALLY	O

CODES FOR CATEGORY

CHILDREN	C
YOUTH	Y
MUSIC	M
DRAMA	D
RELIGIOUS	R
LITERARY	L
NEWS	N
CURRENT AFFAIRS	CA
SPECIAL AUDIENCE	SP
SPORTS	S
WOMEN	W
FAMILY	F
IMPORTED PROGRAMS	I
EDUCATIONAL	E
DOCUMENTARY	DC
ANNIVERSARY	A
ANNOUNCEMENTS	AN
STAGE SHOWS	SS
LOCALLY PURCHASED	LP

PREVIOUS SCREEN ==> PG UP

APPENDIX C

MENUS

MAIN MENU

1. FILE INITIALIZATION
2. FILE MAINTENANCE
3. QUERY / REPORTS
4. EXIT TO DOS

ENTER OPTION ( )

INITIALIZATION OF FILES

WHICH FILE DO YOU WANT TO INITIALIZE ?

1. MASTER FIXED POINT CHART
2. DAILY CUE SHEETS
3. PROGRAMME ORIGINATION SCHEDULE
4. PROGRAMME NAMES' CODE FILE
5. WEEKNOS CODE FILE
6. RETURN TO PREVIOUS MENU

ENTER OPTION ( )

INITIALIZATION OF FILES

WHICH WEEKDAY FILE DO YOU WANT TO INITIALIZE ?

1. SATURDAY
2. SUNDAY
3. MONDAY
4. TUESDAY
5. WEDNESDAY
6. THURSDAY
7. FRIDAY
8. ALL OF ABOVE
9. RETURN TO PREVIOUS MENU

ENTER OPTION ( )

CAUTION

Please ensure that all information stored in datafile DAY-F is saved on separate accessible storage before this file is initialized

ARE YOU SURE YOU WANT TO INITIALIZE THIS FILE (Y/N) ?

FILE MAINTENANCE

WHICH OPERATION DO YOU WANT TO PERFORM ?

1. DATA ENTRY IN FILES
2. MODIFICATION IN EXISTING DATA
3. DELETION OF DATA
4. RETURN TO PREVIOUS MENU

ENTER OPTION ( )

INSERTION MENU

IN WHICH FILE DO YOU WANT TO ENTER DATA ?

1. MASTER FIXED POINT CHART
2. DAILY CUE SHEETS
3. PROGRAMME ORIGINATION SCHEDULE
4. PROGRAMME NAMES' CODE FILE
5. RETURN TO PREVIOUS MENU

ENTER OPTION ( )

CAUTION

Please ensure that you have entered all programme names in the Programme Names' Code file before entering data anywhere. The system will accept programme codes only.

PRESS HOME TO QUIT ELSE PRESS ANY KEY TO CONTINUE

INSERTION MENU

IN WHICH FILE DO YOU WANT TO ENTER DATA ?

1. SATURDAY
2. SUNDAY
3. MONDAY
4. TUESDAY
5. WEDNESDAY
6. THURSDAY
7. FRIDAY

ENTER OPTION ( )

CAUTION

Please ensure that you have initialized Week-nos Code File before entering data in Programme Origination Schedule.

PRESS HOME TO QUIT ELSE PRESS ANY KEY TO CONTINUE

QUERIES

1. Daily programme schedule for any day of the week from Master Fixed Point Chart.
2. Daily Programme Schedule w.r.t date.
3. Total origination of a centre for any time period.
4. Origination of shared programmes by centre on any date.
5. Share of each centre of shared programmes in a quarter.
6. Sub-title of imported films/programmes on any date.
7. Total duration of programmes in any category.
8. Return to previous menu.

ENTER OPTION ( )

APPENDIX D

INPUT SCREENS

CODE GENERATION

PROGRAMME NAME PERFECT STRANGERS

PROGRAMME CODE 036

DAY (SAT,SUN,MON,TUE,WED,THR,FRI,ALL) THR

DURATION (in minutes) 25

CATEGORY

CATEGORY CODES ==> PG DN.PRESS ANY KEY TO CONTINUE

PROGRAMME ORIGINATION SCHEDULE

CODE 001 PROGRAM NAME BISMILLAH & BASEERAT

FREQUENCY (D:DAILY W:WEEKLY F:FORTNIGHTLY
M:MONTHLY O:OCCASSIONALLY) D

WEEK NO 12 16/09/1989_22/09/1989

CENTRE (L:LAHORE K:KARACHI P:PESHAWAR Q:QUETTA
I:ISLAMABAD H:HEAD QUARTER)

DAILY PROGRAM SCHEDULE

DATE 10/03/1990 DAY (SAT,SUN,MON,TUE,WED,THR,FRI) SAT

TIME 03:50 PM PROGRAM NAME HASNA MANA HAI

CODE 024 EPISODE NO

SUB-TITLE DUNYA GOL HAI

CENTRE (L:LAHORE K:KARACHI I:ISLAMABAD E:ELAQAI
Q:QUETTA P:PESHAWAR H:HEAD QUATER) L

ARTISTS' NAMES 1) JAMEEL FAKHARI
2) ALI AIJAZ
3) WASEEM ABBAS
4) SARWAT ATEEQ
5) ABID ALI

MASTER FIXED POINT CHART FOR MONDAY

TIME 03:45 PM

PROGRAM CODES 1) 001 BISMILLAH & BASEERAT
2)
3)

CENTRE (I:ISLAMABAD Q:QUETTA K:KARACHI
P:PESHAWAR L:LAHORE S:SHARED
E:ELAQAI H:HEAD QUARTERS)

APPENDIX E

QUERIES/REPORTS

Enter the required day to see the Daily Program Schedule SAT

WEEKCODES ==> PG DN

DAILY PROGRAM SCHEDULE FOR SATURDAY

TIME	DURATION	CENTRE	PROGRAM NAME
03:45 PM	7	S	BISMILLAH & BASEERAT
03:50 PM	7	S	BISMILLAH & BASEERAT
03:52 PM	2	E	AAJ KE PROGRAM
03:55 PM	30	I	AIOU COURSES
04:25 PM	5	E	URDU NEWS
04:30 PM	10	K	AL-KITAB
04:40 PM	5	H	ADVENTURES OF THE LITTLE PEOPLE LAUREL AND HARDY
04:45 PM	25	Q	MERI KITAB
05:10 PM	25	H	THE ADVENTURES OF TEDDY RUXPIN
05:35 PM	23	K	TV ENCYCLOPAEDIA
06:00 PM	10	E	ELAQAI KHABRAIN
06:10 PM	50	E	REG. LANG. PROG
07:00 PM	15	H	NEWS IN ENGLISH
07:20 PM	35	K	SUR TAAL

PRESS HOME TO QUIT.ANY OTHER KEY TO CONTINUE

UPDATED PROGRAMME SCHEDULE

Date 09/03/1990 Day SATURDAY
Time 03:45 PM Programme name BISMILLAH & BASEERAT
Episode no Sub-title
Centre LAHORE

Time 03:52 PM Programme name AAJ KE PROGRAM
Episode no Sub-title
Centre LAHORE

Time 03:55 PM Programme name AIOU COURSES
Episode no 12 Sub-title COURSE OF GENERAL SCIENCE
Centre ISLAMABAD
Artists' names 1) PERVAIZ HUDH BHAI

Time 04:25 PM Programme name URDU NEWS
Episode no Sub-title
Centre ISLAMABAD

Time 04:30 PM Programme name AL-KITAB
Episode no Sub-title
Centre KARACHI
Artists' names 1) QARI SHAKIR QASMI

Time 04:40 PM Programme name ADVENTURES OF THE LITTLE PEOPLE
Episode no Sub-title DONALD DUCK
Centre HEAD QUARTER

Time 04:45 PM Programme name MERI KITAB
Episode no 3 Sub-title DES DES KI KHANIAN
Centre QUETTA

Time 05:10 PM Programme name THE ADVENTURES OF TEDDY RUXPIN
Episode no Sub-title THERE YOU GO !
Centre HEAD QUARTER

Time 05:35 PM Programme name TV ENCYCLOPAEDIA
Episode no 5 Sub-title PURANE SHEHER
Centre KARACHI

ENTER CENTRE WHOSE TOTAL ORIGINATION
YOU WANT TO SEE (L,K,P,Q,I,H) K

ENTER STARTING DATE 02/03/1990

ENTER ENDING DATE 09/03/1990

DO YOU WANT A PRINT OUT OF THIS REPORT (Y/N) ?

TOTAL ORIGINATION OF A CENTRE W.R.T DATE

DATE	PROGRAM NAME	DURATION	CATEGORY
02/03/1990	AL-KITAB	10	RELIGIOUS
02/03/1990	TV ENCYCLOPAEDIA	23	EDUCATIONAL
02/03/1990	SUR TAAL	35	MUSIC
08/03/1990	AL-KITAB	10	RELIGIOUS
08/03/1990	TV CLINIC	23	SP. AUDIENCE
08/03/1990	JANGLOOS	55	DRAMA
09/03/1990	AL-KITAB	10	RELIGIOUS
09/03/1990	TV ENCYCLOPAEDIA	23	EDUCATIONAL
09/03/1990	SUR TAAL	35	MUSIC

PRESS ANY KEY TO EXIT

TOTAL ORIGINATION OF A CENTRE W.R.T DATE

DATE	PROGRAMME NAME	DURATION	CATEGORY
02/03/1990	AL-KITAB	10	RELIGIOUS
02/03/1990	TV ENCYCLOPAEDIA	23	EDUCATIONAL
02/03/1990	SUR TAAL	35	MUSIC
08/03/1990	AL-KITAB	10	RELIGIOUS
08/03/1990	TV CLINIC	23	SP. AUDIENCE
08/03/1990	JANGLOOS	55	DRAMA
09/03/1990	AL-KITAB	10	RELIGIOUS
09/03/1990	TV ENCYCLOPAEDIA	23	EDUCATIONAL
09/03/1990	SUR TAAL	35	MUSIC

QUERY ABOUT ORIGINATION OF SHARED PROGRAMS

DATE 08/03/1990

PROGRAM CODE 035

PROGRAM NAME KITABOON PAR TABSIRA

CENTRE LAHORE

WANT TO MAKE MORE QUERIES (Y/N) ?

ENTER CENTRE WHOSE SHARE OF SHARED PROGRAMMES YOU WANT TO SEE (L, K, P, Q, I, H)

PROGRAMME NAME	WEEK	FREQUENCY
BISMILLAH & BASEERAT	30/09/1989 - 06/10/1989	DAILY
BISMILLAH & BASEERAT	07/10/1989 - 13/10/1989	DAILY
BISMILLAH & BASEERAT	14/10/1989 - 20/10/1989	DAILY
BISMILLAH & BASEERAT	21/10/1989 - 27/10/1989	DAILY
FARMAN-E-ELAHI	14/10/1989 - 20/10/1989	DAILY
FARMAN-E-ELAHI	11/11/1989 - 17/11/1989	DAILY
FARMAN-E-ELAHI	25/11/1989 - 01/12/1989	DAILY
FARMAN-E-ELAHI	21/10/1989 - 27/10/1989	DAILY
BISMILLAH & BASEERAT	25/11/1989 - 01/12/1989	DAILY
FARMAN-E-ELAHI	30/09/1989 - 06/10/1989	DAILY
FARMAN-E-ELAHI	18/11/1989 - 24/11/1989	DAILY

WANT TO MAKE MORE QUERIES (Y/N) ?

SHARE OF A CENTRE OF SHARED PROGRMMES

PROGRAMME NAME	WEEK	FREQUENCY
BISMILLAH & BASEERAT	30/09/1989_06/10/1989	DAILY
BISMILLAH & BASEERAT	07/10/1989_13/10/1989	DAILY
BISMILLAH & BASEERAT	14/10/1989_20/10/1989	DAILY
BISMILLAH & BASEERAT	21/10/1989_27/10/1989	DAILY
FARMAN-E-ELAHI	14/10/1989_20/10/1989	DAILY
FARMAN-E-ELAHI	11/11/1989_17/11/1989	DAILY
FARMAN-E-ELAHI	25/11/1989_01/12/1989	DAILY
FARMAN-E-ELAHI	21/10/1989_27/10/1989	DAILY
BISMILLAH & BASEERAT	25/11/1989_01/12/1989	DAILY
FARMAN-E-ELAHI	30/09/1989_06/10/1989	DAILY
FARMAN-E-ELAHI	18/11/1989_24/11/1989	DAILY

QUERY ON SUB-TITLE OF PROGRAMS

DATE 09/03/1990

PROGRAM CODE 024

PROGRAM NAME HASNA MANA HAI

SUB-TITLE DUNYA GOOL HAI

WANT TO MAKE MORE QUERIES (Y/N) ?

QUERY ABOUT DURATION

ENTER CATEGORY WHOSE TOTAL DURATION
YOU WANT TO KNOW R

ENTER STARTING DATE 02/03/1990

ENTER ENDING DATE 09/03/1990

DO YOU WANT A PRINT OUT OF THIS REPORT (Y/N) ?

TOTAL DURATION OF PROGRAMS IN A CATEGORY

DATE	PROGRAM NAME	DURATION	CENTRE
02/03/1990	BISMILLAH & BASEERAT	7	QUETTA
02/03/1990	AL-KITAB	10	KARACHI
02/03/1990	FARMAN-E-ELAHI	5	ISLAMABAD
08/03/1990	BISMILLAH & BASEERAT	7	LAHORE
08/03/1990	AL-KITAB	10	KARACHI
08/03/1990	NAAT-E-RASOOL	5	PESHAWAR
08/03/1990	FARMAN-E-ELAHI	5	QUETTA
08/03/1990	FEHMUL QURAN	25	LAHORE
09/03/1990	BISMILLAH & BASEERAT	7	LAHORE
09/03/1990	AL-KITAB	10	KARACHI
09/03/1990	FARMAN-E-ELAHI	5	QUETTA

Total duration of programmes in this category is 096 minutes

PREVIOUS SCREEN ==> PG UP.PRESS ANY KEY TO EXIT

TOTAL DURATION OF PROGRAMMES IN A CATEGORY

DATE	PROGRAMME NAME	DURATION	CENTRE
02/03/1990	BISMILLAH & BASEERAT	7	QUETTA
02/03/1990	AL-KITAB	10	KARACHI
02/03/1990	FARMAN-E-ELAHI	5	ISLAMABAD
08/03/1990	BISMILLAH & BASEERAT	7	LAHORE
08/03/1990	AL-KITAB	10	KARACHI
08/03/1990	NAAT-E-RASOOL	5	PESHAWAR
08/03/1990	FARMAN-E-ELAHI	5	QUETTA
08/03/1990	FEHMUL QURAN	25	LAHORE
09/03/1990	BISMILLAH & BASEERAT	7	LAHORE
09/03/1990	AL-KITAB	10	KARACHI
09/03/1990	FARMAN-E-ELAHI	5	QUETTA

Total duration of programmes in this category is 096 minutes.