

## Business Communications Under New Wave

Alison McCallum-Varey  
Hewlett Packard  
Office Productivity Division  
England

### Introduction

#### What this paper talks about

The aim of this paper is to look at the communication facilities of New Wave - in particular New Wave Mail. By way of introduction, the paper examines how business communications and business systems integration have developed into New Wave. The rest of the paper then focuses on New Wave Mail.

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## 1. Development of Business Communications

Computers have long been recognized as an important business communication medium. The need for information distribution and messaging systems has grown as users gained access to firstly to terminals linked to host computers and more recently to PCs. Whereas previously memos, documents and reports were distributed in paper form around an organization, now the computer can take over the production and distribution of that information.

Hewlett Packard has been working in this area for a number of years and has produced a series of products aimed at satisfying customers' requirements for information distribution and messaging facilities.

### HP DeskManager

HP DeskManager is a well-established information distribution and messaging system for the HP 3000. It has been substantially developed since its introduction in 1981 and now provides a comprehensive range of facilities. Documents, memos, graphics and spreadsheets can be sent across a network. Users can send, reply to, read, print and file their messages. HP DeskManager also gives them access to bolt on products such as HP Schedule for resource scheduling and HP File/Library for community filing. HP DeskManager provides all these facilities on an HP 3000 and is a terminal-based solution.

### AdvanceMail

As PCs have become more prevalent, users have moved towards using PC-based applications for creating word processing documents, graphics and spreadsheets. What has not changed is their need to distribute that information within their workgroups and across the company.

To give PC users the same information distribution and messaging facilities as the HP 3000 users, Hewlett-Packard introduced AdvanceMail. AdvanceMail allows PC users to send documents, spreadsheets, memos and graphics across the HP DeskManager network without leaving the PC environment. They also have access to personal filing, printing and automatic conversions. AdvanceMail is a major element in an integrated PC solution to users' information distribution and messaging needs.

### New Wave Mail

As the move towards PCs continues, so the need for a even more integrated solution has become apparent. This has now come in the form of New Wave and with it New Wave Mail which provides the capabilities of HP DeskManager and AdvanceMail but in a New Wave environment. Before looking in detail at New Wave Mail, let's examine how the New Wave environment developed.

## 2. Development of the New Wave Environment

New Wave is the culmination of a long process of computer integration. The concept of integrating systems has been around since minicomputers were introduced. At that time the focus was on integrating the minicomputer with the mainframe. The end user was isolated from computing resources. When PCs were introduced in the early eighties, minicomputers were by that time well integrated and PCs were an island without any form of connectivity. Vendors like Hewlett-Packard recognized the value of PC integration and worked to provide for the needs of the PC user. In the case of Hewlett-Packard this has resulted in our being rated #1 in PC integration by all the leading consultants.

Not content with that, Hewlett-Packard have been investigating how to break down the final barriers between user and computer. It is the aim of the New Wave environment to break down those barriers.

### Focus on Tasks not Tools

In investigating what constituted the barrier and how to break it down, one of the facts revealed was that using computers to complete tasks often means focusing more on the tools to do the task rather than the task itself. This means that users productivity is not as high as it could be. To make users more productive they need a computer solution which focuses, as they would do, on the tasks not the tools.

The idea behind New Wave is that users should no longer have to think in terms of electronic mail, graphics, spreadsheets, word processing but rather be free to concentrate on their key tasks - information management, analysis and communication. In the rest of this paper, the emphasis will be on the third task - communication.

In order to make the task-orientated environment a reality, some key elements need to be included. These are:

### Improved integration between applications

This integration should be:

**Seamless** - when producing documents which have elements of text, analysis and graphics, the system should allow users to switch back and forth across a number of applications without complicated commands.

**Transparent** - Data should only have to be entered once but be presented in a number of different ways without rekeying.

**Hot Connects** - Different views of the same data should be linked. So when one version of the data changes, so other linked versions changed automatically.

**Interrupt-driven** - Most people are usually trying to get several tasks done at once. They should be able to move quickly from one task to another without complex commands.

**Consistent, predictable user interface** - Users should have a single interface which means they only have to learn one set of commands which will apply across all the applications they use in that environment.

**Transparent access to network resources** - Access to the network should be transparent. The workgroup needs to be connected to the rest of the organization with a minimum of technical knowledge on their part.

### New Wave Mail

New Wave Mail is the internal name for the communications component of New Wave. It allows users in the New Wave environment to communicate with other New Wave users as well as with HP DeskManager and AdvanceMail users without leaving the New Wave environment. In addition it gives New Wave users the capability of communicating with external systems such as Telex, IBM's PROFS and DISOSS and other public and private mail systems via the X.400 standard.

In designing for the New Wave environment as discussed earlier, the emphasis is no longer on the tools but the tasks. In the case of New Wave Mail the task to be accomplished is communication. The concepts of New Wave Mail therefore are to enable the user to carry out that task in the most natural and familiar way possible.

The New Wave desktop provides the framework for every task. New Wave mail exists within that framework as the mechanism for carrying out the task of communication. The user is no longer constrained by the idea of different applications for different tasks. Nor are they restricted by the feature set offered by that application. Everything needed to accomplish a task is immediately accessible from the Desktop.

In the instance of New Wave Mail, users wanting to send an object or series of objects can simply pick up the icon representing the object and drop it onto the Mailroom icon, they can then transfer the messages whenever they choose. In this way, the user is no longer obliged to learn a different set of instructions for each application but has an consistent, easy to learn, easy to use environment where he/she can be productive from the outset.

## New Wave Mail Components

New Wave Mail is represented on the Desktop by a series of icons which the user can use when they need to communicate. The two primary icons are the Mailroom and the Intray.

### Mailroom

The Mailroom icon is for communication from New Wave to other users on the network. It provides the capability to send any item or group of items from the Desktop out through HP DeskManager to either other New Wave users, HP DeskManager users, AdvanceMail users or even external systems through HP DeskManager's foreign service gateway mechanism.

The Mailroom uses the addressing system familiar to all users of HP DeskManager and AdvanceMail - the user's full name plus a location and sublocation combination. As with HP DeskManager and AdvanceMail, New Wave Mail allows users to send a distribution list of up to 200 users. It also gives the capability to use foreign addressing for delivery beyond the HP DeskManager gateway.

### Intray

The Intray icon represents the area to which messages are delivered. The New Wave user receives messages via HP DeskManager and can store them anywhere on the Desktop. Items received are represented as addressed envelopes on the Desktop.

### Other Icons

New Wave Mail uses an envelope icon to represent items which are sent and received by the New Wave user.

**Outgoing Envelope** - The user can group items in an envelope before mailing them. This includes a distribution list and up to 200 items.

**Incoming Envelope** - Items received in the In Tray are displayed as envelopes when moved to the Desktop.

**Returned Envelope** - If a message could not be sent for whatever reason it is displayed as an envelope with a cross through it.

### Other features

Business communications have tried up to now to provide all the facilities a user might need within the package itself, so that the package becomes the user's working environment. This is an important stage in the development of the integrated environment. The idea of having all applications under one "umbrella".

New Wave replacing that concept and it becomes the working environment. Communications now fit into that environment rather being the environment. New Wave gives access to features such as word processing and filing via the Desktop where they are shared by all New Wave applications.

The features that New Wave Mail provides are therefore those which are directly related to communications needs. These include

#### Distribution List processing

Since New Wave Mail uses HP DeskManager's transport mechanism, it ensures that distribution lists are correct.

It provides different categories of sender - TO: CC: BCC: and FROM:.

Distribution lists can be prepared and stored in the file drawer and then added to messages as required.

#### Filters

When users receive large numbers of messages, filters become an invaluable way of saving time by allowing the user to do some of the processing automatically. Users can specify which messages they want to receive and where they want them to be put according to the sender and subject. This means they don't have to deal with "junk" mail and can receive important messages more quickly.

#### Conversions

When communicating around a large network, it is inevitable that different users will be using different applications, particularly if they are non-New Wave host-based users. The converters reside on the HP 3000 and enable the New Wave user to set up in what format he/she will receive items. HP Draw can automatically be transferred to Drawing Gallery for example. For more details of how new and current wave applications interact see "New Wave and Current Wave - working together".

#### Message Transfer

Message transfer can take place in both directions - sending and receiving. The transfers can be set for a particular time and sending and receiving can be done at the same or separate times.

Messages are routed around the network through HP DeskManager. In order to take advantage of this facility, the New Wave Workstation has to be connected to an HP 3000 either as part of an Officeshare network using ThinLAN, StarLAN or StarLAN 10 or by means of an HP Serial connection.

Connections can also be made over X.25, modem, HP 2334 multiplexor. Other connections can be established using AdvanceLink.

### New Wave and Current Wave - Working together

Hewlett Packard has a commitment to the future and New Wave is the way that we see it developing. However, we are also committed our customers and we understand their need to protect their investment in current solutions.

With these concerns in mind, we have worked to ensure that the current and the new wave can coexist and are by no means mutually exclusive.

### Working together - how it's done

Many existing customers will have both HP DeskManager and AdvanceMail users on their systems. Some may be using terminals, others less powerful PCs. They also want to allow some users to move to using New Wave. All the users will have the same need to communicate as they did before New Wave and many of them will be using current wave tools to do so.

To ensure that the needs of all users are served by the new and current wave applications, the current wave applications have been modified to recognize New Wave objects and treat them accordingly and New Wave was designed to accept the current wave objects from the outset.

This has been achieved by developing a series of browsers which enable the conversion of New Wave objects into current wave objects as they are transported around the network. HP DeskManager will contain a Serialized Object Format browser and this will also be utilized by AdvanceMail.

Thus the new and the current can coexist and users of different types can communicate with the minimum disturbance of their established methods.

### Conclusion - We've come a long way

The development of New Wave is a major breakthrough in efforts to increase user's productivity. Finally they can concentrate on the job in hand and not be concerned with the task of learning numerous different software packages and applications. It's a long way from where we started and the development doesn't stop here.

In the coming year, more the communications horizon will expand even further. Areas under investigation right now include connections to facsimile, the use of Voice messaging, Unix mail, and EDI Value-added networks. These areas are still being investigated and some not come to fruition, however whichever direction we take, New Wave is our platform for the future development of communications. The world will be at the fingertips of the New Wave user.