SYSTEM PERFORMANCE

PERIOD FROM 28/9 - 4/10 5/10 - 11/10

USEFUL TIME 89 81.6% 88 84.6%
GOOD TIME 96 88 % 93 89.4%
ON TIME 109 100 % 104 100 %

NO OF CRASHES 8 2
TIME BETWEEN CRASHES 11.98 HRS 46.62 HRS
MEAN TIME RECOVER 26.25 MINS 36.50 MINS

LOW PRIORITY CHARGES

The Computer Centre Executive Committee decided at its meeting of 5.10.73 to introduce a new low priority charge for spooling and batch operation at .5 of normal rates (Priorities 1 to 4).

The main reason for this new charge is to provide some reduction in costs for student work where overnight turnaround is adequate. For this reason, the charge applies to internal users only.

BMD STATISTICAL PACKAGE

The BMD STATISTICAL PACKAGE programs currently available on the PDP-10 system have been converted for 5-series operation. This will simplify deck set-ups and avoid problems caused by excessive block allocations to line printer files.

The 5-series versions will be available on the system on Wednesday 17th of October.
The deck set-up for BMD runs is -

```plaintext
$SEQUENCE
$JOB
$DECK QAA.CDR
...
$EOD
.RUN STATS:BMD~2R
.DEL QAA.CDR
e-o-f
```

The following programs from the BMD package are currently available on the STATS directory:-

**CLASS D - Description and Tabulation**

- BMD~1D - Simple Data Description
- BMD~2D - Correlation with Transgeneration
- BMD~3D - Correlation with Item Deletion (Superceded by BMDX84)
- BMD~8D - Cross-Tabulation with variable stacking

**CLASS M - Multivariate Analysis**

- BMD~1M - Principal Component Analysis
- BMD~2M - Regression on Principal Components
- BMD~4M - Discriminant Analysis for Two Groups
- BMD~7M - Stepwise Discriminant Analysis

**CLASS R - Regression Analysis**

- BMD~2R - Stepwise Regression
- BMD~6R - Asymptotic Regression

**CLASS V - Variance Analysis**

- BMD~1V - Analysis of Variance for One-Way Design
- BMD~04V - Analysis of Covariance with Multiple Covariates (superceded by BMDX82)

This selection of BMD programs was implemented on the system because they were considered the most general applicable from each group. It is appreciated that this may not completely cover all requirements of statistics users.
All of the BMD programs mentioned in the documentation are available at the Computer Centre, though not necessarily in a converted form. Users requiring BMD programs not currently available on the STATS directory should contact the Computer Centre and every assistance will be given with a view to conversion for PDP-10 operation.

The latest BMD 'X-series' of programs has also been obtained and the programs are listed below. Some of these supercede existing BMD programs and others are new additions. Those which supercede current BMD programs are being converted and the Centre would like to hear from people interested in using any of the programs which would be new additions to the system. (Contact Bob Christiansen at the Computer Centre -ext. 6288)

'X-series Programs'

<table>
<thead>
<tr>
<th>Program</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMDX63</td>
<td>Multivariate General Linear Hypothesis</td>
</tr>
<tr>
<td>BMDX64</td>
<td>General Linear Hypothesis</td>
</tr>
<tr>
<td>BMDX68</td>
<td>Multiple Time Series Spectral Analysis</td>
</tr>
<tr>
<td>BMDX69</td>
<td>Multivariate Analysis of Variance and Covariance</td>
</tr>
<tr>
<td>BMDX70</td>
<td>t-Program</td>
</tr>
<tr>
<td>BMDX72</td>
<td>Factor Analysis</td>
</tr>
<tr>
<td>BMDX74</td>
<td>Identification of Outliers</td>
</tr>
<tr>
<td>BMDX75</td>
<td>Canonical Analysis</td>
</tr>
<tr>
<td>BMDX76</td>
<td>Life Table and Survival Rate</td>
</tr>
<tr>
<td>BMDX77</td>
<td>Transgeneration</td>
</tr>
<tr>
<td>BMDX82</td>
<td>Analysis of Covariance</td>
</tr>
<tr>
<td>BMDX84</td>
<td>Asymmetrical Correlation with Missing Data</td>
</tr>
<tr>
<td>BMDX85</td>
<td>Nonlinear Least Squares</td>
</tr>
<tr>
<td>BMDX90</td>
<td>Sort Program</td>
</tr>
<tr>
<td>BMDX92</td>
<td>Time Series Spectrum Estimation</td>
</tr>
<tr>
<td>BMDX93</td>
<td>Time-locked Averaging Program</td>
</tr>
<tr>
<td>BMDX94</td>
<td>Multipass Transgeneration</td>
</tr>
</tbody>
</table>