

DAFTAR ISI

ABSTRAK	vi
KATA PENGANTAR	vii
DAFTAR ISI.....	ix
DAFTAR GAMBAR	xiii
DAFTAR TABEL	xvii
DAFTAR RUMUS	xx
DAFTAR LAMPIRAN	xxi
BAB I PENDAHULUAN.....	1
1.1 Latar Belakang Masalah	1
1.2 Perumusan Masalah.....	2
1.3 Pembatasan Masalah	3
1.4 Tujuan.....	3
1.5 Sistematika Penulisan.....	4
BAB II LANDASAN TEORI.....	6
2.1 Mesin <i>Filling</i>	6
2.1.1 <i>Tetra Pack A3/CompactFlex</i>	6
2.1.2 <i>Tetra Pack A3/Flex</i>	7
2.2 <i>Capacity Utilization Time & Efficiency (CUTE)</i>	7
2.3 Sistem Informasi	10
2.4 <i>Monitoring</i>	12
2.4.1 Efektifitas <i>Monitoring</i>	13

2.4.2 Tujuan <i>Monitoring</i>	14
2.4.3 Bentuk-Bentuk <i>Monitoring</i>	14
2.5 <i>Evaluasi</i>	15
2.5.1 Tujuan Evaluasi	16
2.5.2 Fungsi Evaluasi	16
2.5.3 Manfaat Evaluasi	16
2.6 Grafik	17
2.7 <i>Hypertext Preprocessor</i> (PHP).....	18
2.8 <i>Apache</i>	19
2.9 <i>My Structure Query Language</i> (MySQL)	20
2.10 <i>Framework</i>	20
2.11 <i>Codeigniter</i>	21
2.12 <i>Testing dan Implementasi Sistem</i>	23
2.12.1 <i>White Box Testing</i>	24
2.12.2 <i>Black Box Testing</i>	24
2.12.3 <i>Testing Aplikasi Berbasis Web</i>	25
2.13 <i>System Development Life Cycle</i> (SDLC)	29
2.13.1 Identifikasi Masalah	29
2.13.2 Menentukan Kebutuhan Informasi	30
2.13.3 Analisis Sistem	31
2.13.4 Perancangan Sistem	31
2.13.5 Implementasi Sistem	32
2.13.6 Perawatan dan Pengembangan Sistem	32

BAB III ANALISIS DAN PERANCANGAN SISTEM.....	33
3.1 Analisis Sistem.....	33
3.1.1 Identifikasi Masalah	33
3.1.2 Analisis Kebutuhan Sistem	35
3.2 Perancangan Sistem.....	36
3.2.1 Model Pengembangan	37
3.2.2 <i>System Flow</i>	38
3.2.3 <i>Data Flow Diagram</i> (DFD)	40
3.2.4 <i>Entity Relationship Diagram</i> (ERD)	45
3.2.5 Struktur Basis Data	46
3.2.6 <i>Design Input Output</i>	50
3.3 Perancangan Evaluasi Sistem.....	73
3.3.1 Perancangan Uji Coba Sistem	73
BAB IV IMPLEMENTASI DAN EVALUASI.....	77
4.1 Implementasi Sistem	77
4.1.1 Kebutuhan Implementasi.....	77
4.2 Uji Coba	101
4.2.1 Uji Coba Sistem	102
4.2.2 Evaluasi Hasil.....	111
BAB V KESIMPULAN DAN SARAN.....	120
5.1 Kesimpulan.....	120
5.2 Saran.....	120
DAFTAR PUSTAKA.....	122

STIKOM SURABAYA

DAFTAR GAMBAR

Gambar 2.1	<i>Tetra Pack A3/CompactFlex</i>	6
Gambar 2.2	<i>Tetra Pack A3/Flex</i>	7
Gambar 2.3	Klasifikasi Waktu CUTE	8
Gambar 2.4	Model Sistem Informasi	10
Gambar 2.5	Model S.I Dengan Penyimpanan Data	11
Gambar 3.1	Proses Pembuatan Informasi Kinerja Mesin	34
Gambar 3.2	<i>Blog Diagram S.I Monitoring & Evaluasi Kinerja Mesin</i>	37
Gambar 3.3	<i>System Flow S.I Monitoring & Evaluasi Kinerja Mesin</i>	39
Gambar 3.4	<i>Context Diagram S.I Monitoring & Evaluasi Kinerja Mesin</i>	41
Gambar 3.5	DFD Lvl 0 <i>S.I Monitoring & Evaluasi Kinerja Mesin</i>	42
Gambar 3.6	DFD Lvl 1 <i>Sub-sistem Mengolah Report</i>	43
Gambar 3.7	DFD Lvl 1 <i>Sub-sistem Mengolah Master</i>	44
Gambar 3.8	DFD Lvl 2 <i>Sub-sistem Mengolah G.P. Machine</i>	44
Gambar 3.9	<i>Conceptual Data Model (CDM)</i>	45
Gambar 3.10	<i>Physical Data Model (PDM)</i>	46
Gambar 3.11	Desain <i>Form Login Administrator</i>	50
Gambar 3.12	Desain <i>Form Halaman Utama Administrator</i>	51
Gambar 3.13	Desain <i>Form Machine</i>	52
Gambar 3.14	Desain <i>Form Plan Machine Performance</i>	53
Gambar 3.15	Desain <i>Form Category</i>	54
Gambar 3.16	Desain <i>Form Problem</i>	55

Gambar 3.17 Desain <i>Form Detail Team</i>	56
Gambar 3.18 Desain <i>Form Team</i>	57
Gambar 3.19 Desain <i>Form User</i>	58
Gambar 3.20 Desain <i>Form Activity</i>	60
Gambar 3.21 Desain <i>Form Problem Activity</i>	61
Gambar 3.22 Desain <i>Form Time Utilisation (TU)</i>	62
Gambar 3.23 Desain <i>Form Graph Time Utilisation (TU)</i>	63
Gambar 3.24 Desain <i>Form Detail Time Utilisation (TU)</i>	64
Gambar 3.25 Desain <i>Form Production Time Utilisation (PTU)</i>	65
Gambar 3.26 Desain <i>Form Graph Production Time Utilisation (PTU)</i>	66
Gambar 3.27 Desain <i>Form Detail Production Time Utilisation (PTU)</i>	67
Gambar 3.28 Desain <i>Form Total Capacity Utilisation (TCU)</i>	68
Gambar 3.29 Desain <i>Form Graph Total Capacity Utilisation (TCU)</i>	69
Gambar 3.30 Desain <i>Form Detail Total Capacity Utilisation (TCU)</i>	70
Gambar 3.31 Desain <i>Form Evaluation of Performance Machine</i>	71
Gambar 3.32 Desain <i>Form Report Evaluation of Performance Machine</i>	72
Gambar 4.1 Arsitektur <i>S.I. Monitoring dan Evaluasi Kinerja Mesin</i>	78
Gambar 4.2 Halaman <i>Login</i>	80
Gambar 4.3 Halaman <i>Master Category</i>	81
Gambar 4.4 Halaman <i>Master Problem</i>	81
Gambar 4.5 Halaman <i>Master Machine</i>	82
Gambar 4.6 Halaman <i>Master Plan Performance Machine</i>	83
Gambar 4.7 Halaman <i>Master Team</i>	83

Gambar 4.8	Halaman <i>Master Detail Team</i>	84
Gambar 4.9	Halaman <i>Master User</i>	85
Gambar 4.10	Halaman <i>Add Activity</i>	86
Gambar 4.11	Halaman <i>Add Problem Activity</i>	87
Gambar 4.12	Halaman <i>Report Time Utilisation (TU)</i>	88
Gambar 4.13	Halaman <i>Report Graph Time Utilisation (TU)</i>	88
Gambar 4.14	Halaman <i>Report Detail Time Utilisation (TU)</i>	89
Gambar 4.15	Halaman <i>Report Production Time Utilisation (PTU)</i>	90
Gambar 4.16	Halaman <i>Report Graph Production Time Utilisation (PTU)</i>	91
Gambar 4.17	Halaman <i>Report Detail Production Time Utilisation (PTU)</i>	92
Gambar 4.18	Halaman <i>Report Total Capacity Utilisation (TCU)</i>	93
Gambar 4.19	Halaman <i>Report Graph Total Capacity Utilisation (TCU)</i>	93
Gambar 4.20	Halaman <i>Report Detail Total Capacity Utilisation (TCU)</i>	94
Gambar 4.21	Halaman <i>Report Output Product</i>	95
Gambar 4.22	Halaman <i>Report Graph Output Product</i>	95
Gambar 4.23	Halaman <i>Report PDF Output Product</i>	96
Gambar 4.24	Halaman <i>Report Problem</i>	97
Gambar 4.25	Halaman <i>Report Graph Problem</i>	98
Gambar 4.26	Halaman <i>Report PDF Problem</i>	99
Gambar 4.27	Halaman <i>Evaluation of Performance Machine</i>	100
Gambar 4.28	Halaman <i>Report PDF Evaluation of Performance Machine</i>	101
Gambar 4.29	Login Berhasil	102
Gambar 4.30	Pesan <i>Error</i> Saat Proses Login	103

Gambar 4.31	Halaman <i>View Data Machine</i>	104
Gambar 4.32	Halaman <i>Error</i> Ketika Kolom Inputan Tidak Diisi	104
Gambar 4.33	Halaman <i>Error</i> Ketika <i>Field</i> Angka Diisi Huruf	105
Gambar 4.34	Halaman <i>View Data Activity</i>	106
Gambar 4.35	Halaman <i>Error</i> Ketika Kolom Inputan Tidak Diisi	107
Gambar 4.36	Halaman <i>Error</i> Ketika <i>Field</i> Angka Diisi Huruf	107
Gambar 4.37	Halaman Laporan Kinerja Mesin	109
Gambar 4.38	Laporan Kinerja Mesin Dalam Bentuk Grafik & Tabel	109
Gambar 4.39	Laporan Kinerja Mesin Dalam Bentuk PDF	110
Gambar 4.40	<i>Output</i> Laporan TU Dari Aplikasi	113
Gambar 4.41	<i>Output</i> Laporan PTU Dari Aplikasi	116
Gambar 4.41	<i>Output</i> Laporan TCU Dari Aplikasi	119

DAFTAR TABEL

Tabel 3.1	Tabel Analisa Kebutuhan Sistem.....	35
Tabel 3.2	Tabel <i>Functional & Non Functional S.I Monitoring & Evaluasi</i>	36
Tabel 3.3	Tabel <i>Machine</i>	47
Tabel 3.4	Tabel <i>Team</i>	47
Tabel 3.5	Tabel <i>Category</i>	47
Tabel 3.6	Tabel <i>Standard</i>	48
Tabel 3.7	Tabel <i>Problem</i>	48
Tabel 3.8	Tabel <i>User</i>	48
Tabel 3.9	Tabel <i>DetailTeam</i>	49
Tabel 3.10	Tabel <i>DetailProblem</i>	49
Tabel 3.11	Tabel <i>Activities</i>	49
Tabel 3.12	Fungsi Obyek Desain <i>Form Login Administrator</i>	51
Tabel 3.13	Fungsi Obyek Desain <i>Form Machine</i>	52
Tabel 3.14	Fungsi Obyek Desain <i>Form Plan Performance Machine</i>	53
Tabel 3.15	Fungsi Obyek Desain <i>Form Category</i>	54
Tabel 3.16	Fungsi Obyek Desain <i>Form Problem</i>	55
Tabel 3.17	Fungsi Obyek Desain <i>Form Detail Team</i>	57
Tabel 3.18	Fungsi Obyek Desain <i>Form Team</i>	58
Tabel 3.19	Fungsi Obyek Desain <i>Form User</i>	59
Tabel 3.20	Fungsi Obyek Desain <i>Form Activity</i>	60
Tabel 3.21	Fungsi Obyek Desain <i>Form Add Problem Activity</i>	61

Tabel 3.22 Fungsi Obyek Desain <i>Form Time Utilization</i> (TU).....	63
Tabel 3.23 Fungsi Obyek Desain <i>Form Graph Time Utilization</i> (TU)	64
Tabel 3.24 Fungsi Obyek Desain <i>Form Production Time Utilization</i> (PTU).....	65
Tabel 3.25 Fungsi Obyek Desain <i>Form Graph Production Time Utilization</i>	66
Tabel 3.26 Fungsi Obyek Desain <i>Form Total Capacity Utilization</i> (TCU)	68
Tabel 3.27 Fungsi Obyek Desain <i>Form Graph Total Capacity Utilization</i>	69
Tabel 3.28 Fungsi Obyek Desain <i>Form Evaluation of Performance Machine</i> ...	71
Tabel 3.29 Data Uji Coba <i>Login</i>	73
Tabel 3.30 Rancangan Data Uji Coba <i>Login</i>	73
Tabel 3.31 Data Uji Coba <i>Form Tambah Data Machine</i>	74
Tabel 3.32 Rancangan Data Uji Coba <i>Form Tambah Data Machine</i>	74
Tabel 3.33 Data Uji Coba <i>Form Activity</i>	75
Tabel 3.34 Rancangan Data Uji Coba <i>Form Activity</i>	75
Tabel 3.35 Data Uji Coba <i>Form Laporan Kinerja Mesin</i>	76
Tabel 3.36 Rancangan Data Uji Coba <i>Form Laporan Kinerja Mesin</i>	76
Tabel 4.1 Kebutuhan Perangkat Keras <i>Server</i>	78
Tabel 4.2 Kebutuhan Perangkat Keras <i>Client</i>	79
Tabel 4.3 Kebutuhan Perangkat lunak	79
Tabel 4.4 Hasil Uji Coba <i>Form Login</i>	103
Tabel 4.5 Hasil Uji Coba <i>Form Tambah Machine</i>	105
Tabel 4.6 Hasil Uji Coba <i>Form Activity</i>	108
Tabel 4.7 Hasil Uji Coba <i>Form Laporan Kinerja Mesin</i>	110
Tabel 4.8 Data Uji Coba Perhitungan <i>Time Utilization</i> (TU)	111

Tabel 4.9 Data Uji Coba Perhitungan *Production Time Utilization* (PTU).....114

Tabel 4.10 Data Uji Coba Perhitungan *Total Capacity Utilization* (TCU)117

STIKOM SURABAYA

DAFTAR RUMUS

Rumus 2.1 Rumus <i>Time Utilization</i> (TU)	9
Rumus 2.2 Rumus <i>Production Time Utilization</i> (PTU)	10
Rumus 2.3 Rumus <i>Total Capacity Utilization</i> (TCU)	10

STIKOM SURABAYA

DAFTAR LAMPIRAN

Lampiran 1	Biodata Penulis	124
Lampiran 2	<i>Logsheet Operator</i>	125
Lampiran 3	<i>Source Code</i>	127

STIKOM SURABAYA