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Ecocad ITALIA

19698

FINAL REPORT

Creation of a Computer Aided Design and Drafting Unit in ARCEDEM , IBADAN (Nigeria)

Project US/RAF/88/007
Contract No. 91/123
Purchase Order No. 15-1-2123X

Prepared by
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on 14 April 1992

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Ecocad ITALIA

FINAL REPORT

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Ecocad ITALIA

FINAL REPORT

1. Introduction

Present report is the final document of UNIDO project:

"Creation of a Computer Aided Design and Drafting Unit in Arcedem".

UNIDO project aimed at supplying a computerized system - complete with an appropriate hardware platform, fully installed software and trained design personnel - for supporting the design and development of prototype equipment with creation of a computer aided design and drafting (CADD) facility in ARCEDEM **"African Regional Centre for Engineering Design and Manufacturing"** located at Ibadan, Nigeria.

Chronological development of the project is as follows:

- UNIDO request of proposal 90/54 dated 02 July 1990;
- Ecocad proposal 141/90 dated 13 August 1990 afterwards splitted up in two different proposals both dated 16 October 1990:
  No. 173/90 for hardware and software supply,
  No. 174/90 for Arcedem personnel training;
- UNIDO second request of proposal 91/13 dated 12 February 1991;
- Ecocad proposal 24/91 dated 08 March 1991;
- UNIDO award of contract faxed on 14 June 1991 and Ecocad acceptance 81/91 dated 17 June 1991;
- UNIDO formal contract 91/123 dated 19 July 1991;
- Shipment of goods as per contract on 14 August 1991;
- Ecocad personnel mission to Ibadan for installing and commissioning of hardware and software (22-27 March 1992).

Above-mentioned project's steps are detailed in following paragraphs.

2. From Request of Proposal to Contract

With a first UNIDO request of proposal (No. 90/54 dated 02 July 1990, attached hereto as Annex A) Ecocad was invited to prepare and submit a written proposal for the subject services referring to specific technical Terms of Reference (proposal N. 141/90 dated 13 August 1990, attached hereto as Annex B).

The above-mentioned proposal was afterwards splitted in two proposals, to separate the hardware/software supplying from the Arcedem personnel training (proposals No. 173/90 and 174/90 dated 16 October 1990, attached hereto respectively as Annex C and Annex D).

On February 1991 UNIDO produced a second request of proposal No. 91/13 attached hereto as Annex E.

Ecocad submitted proposal No. 24/91 dated 08 March 1991 (Annex F).

This proposal differs from the others for performances of hardware proposed (IBM RISC/6000 and PC/AT 386SX): in fact, in the meanwhile, the ratio cost/performance was greatly reduced owing to the continuos improvement of electronic components.

UNIDO selected Ecocad for the execution of the contract component of the subject project and notified the award of contract on 14 June 1991 (Annex G), which Ecocad accepted on 17 June 1991 (Annex H).

The formal contract No. 91/123 is dated 19 July 1991 and attached hereto as Annex I.

3. From Contract to Shipment

On July 1991 Ecocad has provided to supplying all computer equipments and software for the subject services as per contract disposals.

All equipments (hardware and software) have been installed and commissioned in Pesaro at Ecocad's headquarter and continuosly tested for three days.

When tests passed, all hardware, manuals and media have been packed and sealed in their original packages and then grouped in N.6 pallets for a total of No. 29 boxes.

Pallets have been delivered to Arcedem (Ibadan, via Lagos) by Alitalia on 14 August 1991.

Documents relating to shipment are listed below and attached hereto as AnnexL:

Carrier's receipt

Packing list

Commercial Invoice

Carrier's Debit Note to Ecocad

Airwaybill

Insurance value

Insurance document for shipping CIF door to door to ARCEDEM

List of Equipment Items Uplifted

Guarantee for hardware and software

Certificate of Origin

Markings: - consignee address

- pallets

- boxes

- boxes contents

4. Installing and commissioning in Arcedem

Equipment shipped on 14 August 1991 reached Arcedem on 10 September 1991 but, owing to communication difficulties in Nigeria, Ecocad was informed about equipments received only on 07 November 1991. In the meanwhile many messages were spent to request informations about equipments location: over-mentioned messages are grouped in Annex M.

At first Ecocad assumed to undertake one mission for installing/ commissioning equipments and training Arcedem personnel.

Because of work commitments in Arcedem, the mission had to be postponed in April 92 but, not to cause irreversible damage to UPS batteries on open circuit for a too long time, in February was arranged a mission for the duration of one week for installing and commissioning equipment.

Another mission to Arcedem will be carried out by Mr Deleo for training counterpart personnel presumably at the end of April/first of May 92.

Messages concerning Ecocad mission's arrangement are grouped in Annex N.

Ecocad personnel incharged of the mission were Mr S.Iorio and Mr D. Ciarloni They reached Arcedem on 23 March, welcomed by Prof. Lwakabamba and Engr. Manga respectively Director of Training and Design Engineer (Official In Charge). Arcedem Executive Director - dr Abdel Rahman - was on duty trips and meeted Ecocad personnel, out of working time during a short stop in Ibadan, talking about supplying content.

All equipments were packed and located in the Design Department at the second floor of Arcedem main building: photographs No.1 and No 2 show No. 29 boxes perfectly arranged inside the Cad Room.

First step was equipment's unpacking: Ecocad personnel, kindly helped by Design Department personnel, unpacked box by box and checked with Engr. Manga the right content of each box referring to Packing Lists. At 5.00 p.m. all equipments were unpacked and arranged on tables supplied by Arcedem personnel for temporary arrangement of computers and printers.

The next day was entirely spent for electrical connecting and equipments installing and commissioning; equipments were tested smoothly running for five hours without interruption including power failure.

On the computer equipment supplied were typed and printed the following acceptance documents:

- Check of the goods (including Packing lists stamped and signed) - Appendix 1
- Installing, Commissioning, Testing -Appendix 2.

Next days (25 and 26 March) were spent in further testing and installing the following hardware and software present in Arcedem and not yet used:

- Hewlett - Packard table scanner A4 size;
- Hewlett-Packard Laser Printer (hdw/sfw connected, but the printer presents hardware problems as doesn't run the laser selftest);
- Toshiba CD-ROM: this equipment was tested reading a McGraw-Hill encyclopedia compact disk supplied by prof. Lwakabamba;
- Data Base sfw for Arcedem data ingress;
- Epson LQ550 Printer, exactly alike the one supplied.

In presence of Ecocad personnel equipments continuosly runned seven-eight hours per day every day.

Photographs No.3 to No.7 show equipment arrangement inside the Cad Room.

Photographs No. 8 show Ecocad and Arcedem Design Department personnel in front of Arcedem entry.

On 27 March morning Ecocad personnel had a short briefing with Engr. Manga and gave the last few helpful advices to Design Department personnel for correct equipment use, then in the afternoon moved to Lagos airport for return flight to Rome.

Arcedem has provided for free transportations to Ecocad personnel in Nigeria for reasons related to the present project.

5. Conclusions

Ecocad mission, aimed to install equipments, was carried out without a hitch and in a short time, thanks to Arcedem personnel help in installing operations.

Technical level of Design Department personnel, one Design Engineer (Manga) and four draftsmen, is high.

CAD system will help them to standardize drawing production and to create and mantain an Engineering design data base.

We observe that only one workstation is not sufficient to reach the above-mentioned aim, as three - four draftsmen will still use universal drafting devices.

Design Department should be provided at least with four workstations, including the one supplied, not necessarily equipped with 3D modelling software.

Not a long time should pass from personnel training on CAD system and supplying of further workstations, as people not using CAD W/S could forget operating instructions in a short time.

Further workstations should still be RISC/6000, but not necessarily so powerful as model 320: we believe model 220, recently produced by IBM, are sufficient for Arcedem 2D drawing use.

W/S should be computational nodes of an integrated system, then connected each other via thin or thick ethernet local area network, to permit easy communications and access to a unique data base.

An integrated system must be supervisioned and controlled by a system-manager: we believe that the Design Department O.I.C.- Engr. Manga - if suitably trained is potentially an excellent system manager.

One or two workstations are supposed to be used for short periods in the Training Department for training activities.

Manufacturing Department produces prototype and mechanical equipments using appropriate machinery.

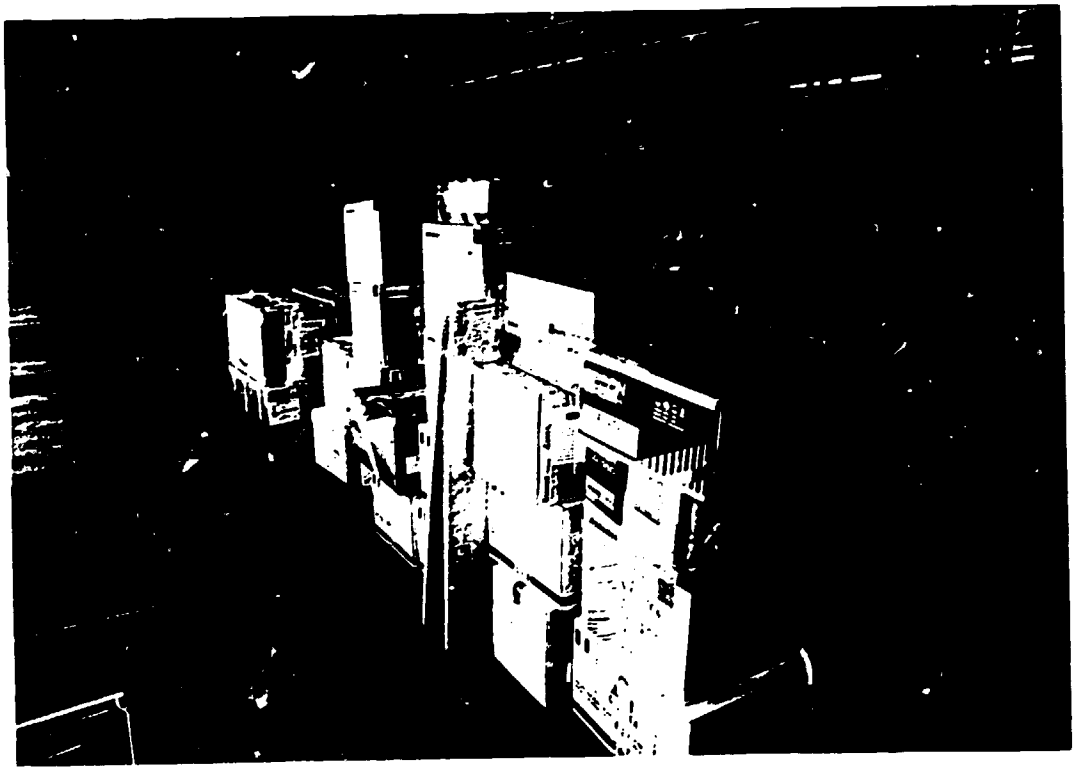
In a work-shop are present, still packed, a numerical control electro-erosion machine and a numerical control three-axis milling machine: as directly programming on board machine control panel is not so easy and immediate, we suggest to create the tool-path on the CAD system with a CAM program and relative postprocessor programs, and then operate machines in Direct Numerical Control way.

Last consideration is about No. 6 PCs (one of which is considered spare part) for D.T.P. activities, at the moment located into the CAD Room of the Design Department. Suggested subdivision of above-mentioned PCs is as follows:

- No.1 Design Department for secretary activities;
- No.2 Training Department for library control and extension services;
- No.2 Manufacturing Department for electro-erosion and milling machines in direct numerical control (when CAM program supplied);
- No.1 spare part.

Dr Gaetano Mazzanti

PHOTOGRAPH No.1



PHOTOGRAPH No.2

PHOTOGRAPH No.3

PHOTOGRAPH No.4

PHOTOGRAPH No.5

PHOTOGRAPH No.6

PHOTOGRAPH No.7

PHOTOGRAPH No.8

ARCEDEM

AFRICAN REGIONAL CENTRE FOR ENGINEERING DESIGN AND MANUFACTURING

CENTRE REGIONAL AFRICAIN DE CONCEPTION ET DE FABRICATION TECHNIQUES

(SPONSORED BY UNITED NATIONS ECONOMIC COMMISSION FOR AFRICA)
(PARRAINE PAR LA COMMISSION ECONOMIQUE DES NATIONS UNIES POUR L'AFRIQUE)

Ref No.....

.....19.....

ACCEPTANCE DOCUMENT
CHECK OF THE GOODS

References: UNIDO Project No. US/RAF/88/007
UNIDO Contract No. 91/123
UNIDOPurchaseOrderNo.15-1-2123X
ECOCADNo.6PackingLists(enclosed)

We have verified the right contents of No. 29 boxes supplied as per references and listed in No. 6 Packing lists enclosed herein.

Remarks: NONE

Arcedem 23 march 1992

ARCEDEM EXECUTIVE DIRECTOR
Dr. Abdel Rahman

AFRICAN REGIONAL CENTRE ARCEDEM FOR ENGINEERING DESIGN AND MANUFACTURING IBADAN NIGERIA

Typed and printed in ARCEDEM after installing and commissioning of computers equipments.

Ecocad ITALIA

PACKING LIST

PROJECT No. US/RAF/88/007 - CONTRACT No. 91/123 - PURCHASE ORDER No. 15-1-2123X

PALLET No 1 OF 6

- GROSS WEIGHT (KG) 190.5
- CUBIC MEASUREMENT (CUBIC METERS) 0.89

CONTAINS BOXES No 1-2-3-4-5-6-7-8 of No 29 BOXES

ABBREVIATIONS

Q.TY= Quantity; RfNo= Identification No. according to the item numbers of ECOCAD proposal dated 08 march 1991; Nw= Net Weight (kg); Gw= Gross Weight (kg); L= Length (cm); W= Width (cm); H= Heigth (cm).

BOX No 1 (Nw= 15, Gw= 17.5, L= 57, W= 45, H= 34)

CONTENTS		Q.TY	RfNo
☐ CPU 80386SX/20 MHZ (0 WS) 2 MB RAM, 130 MB HD, EVGA VIDEO CARD, 2 PORTS RS232C, 1 PARALLEL, FLOPPY DRIVER 3.5" AND 5"1/4	(S/N AC015721)	01	4.c.
☐ POWER CABLE		01	4.c.
☐ KEYBOARD		01	4.c.
☐ MOUSE 3 BUTTONS		01	4.c.
☐ USER MANUAL VGA		01	10.f.
☐ USER MANUAL NEAT 386SX		01	10.f.
☐ USER MANUAL MOUSE		01	10.f.
☐ HANDY SCANNER DFI HS-3000	(S/N 957015)	01	4.f.
☐ USER MANUAL HANDY SCANNER		02	10.c.

BOXES No 2-3-4-5-6 (Nw= 14.3, Gw= 16.8, L= 57, W= 45, H= 34 of each box)

CONTENTS (of each box)	Q.TY	RfNo
☐ CPU 80386SX/20 MHZ (0 WS) 2 MB RAM, 130 MB HD, EVGA VIDEO CARD, 2 PORTS RS232C, 1 PARALLEL, FLOPPY DRIVER 3.5" AND 5"1/4 (S/N AC015670, 691, 722, 701, 711)	01	4.c.
☐ POWER CABLE	01	4.c.
☐ KEYBOARD	01	4.c.
☐ MOUSE 3 BUTTONS	01	4.c.
☐ USER MANUAL VGA	01	10.f.
☐ USER MANUAL NEAT 386SX	01	10.f.
☐ USER MANUAL MOUSE	01	10.f.

BOX No 7 (Nw= 24, Gw= 28, L= 45, W= 38, H= 41)

CONTENTS (manuals)	Q.TY	RfNo
☐ INSTALLATION AND SERVICE GUIDE	02	10.a.
☐ DIAGNOSTIC PROGRAMS: SERVICE GUIDE	02	10.a.
*☐ OPERATOR GUIDE	02	10.a.
☐ DIAGNOSTIC PROGRAMS: OPERATOR GUIDE	02	10.a.
☐ PROBLEM SOLVING GUIDE	02	10.a.
☐ COMMAND REFERENCE VOLUMES 1-2-3	02	10.a.
☐ GENERAL PROGRAMMING CONCEPTS	02	10.a.
☐ AIX INSTALLATION GUIDE	02	10.a.

BOX No 8 (Nw= 39, Gw= 43, L= 59, W= 46, H= 35)

CONTENTS (consumption materials)	Q.TY	RfNo
☐ PAPER SHEETS A4 FOR PRINTERS	2000	4.h.
☐ CONTINUOS PAPER BLOCKS FOR LQ1050	04	4.h.
☐ CONTIN UOS PAPER BLOCKS FOR LQ550	06	4.h.

* OPERATOR GUIDE MANUAL IS AS FOLLOWS:
GETTING STARTED - USING RISC SYSTEM/6000
- MANAGING RISC SYSTEM/6000

Ecocad ITALIA

PACKING LIST

PROJECT No. US/RAF/88/007 - CONTRACT No. 91/123 - PURCHASE ORDER No. 15-1-2123X

PALLET No 2 OF 6

- GROSS WEIGHT (KG) 130
- CUBIC MEASUREMENT (CUBIC METERS) 1.06

CONTAINS BOXES No 9-10-11-12-13-14-15-16-17 of No 29 BOXES

ABBREVIATIONS

Q.TY= Quantity; RfNo= Identification No. according to the item numbers of ECOCAD proposal dated 08 march 1991; Nw= Net Weight (kg); Gw= Gross Weight (kg); L= Length (cm); W= Width (cm); H= Heigth (cm).

BOXES No 9-10-11-12-13-14 (Nw= 13.7 Gw= 14.5, L= 48, W= 45, H= 41 of each box)

CONTENTS (of each box)	Q.TY	RfNo
☐ ADDONICS 14" COLOR MONITOR MULTISYNC (S/N M7C6008294, 915, 394, 922, 400, 918)	01	4.c.
☐ VIDEO CABLE	01	4.c.
☐ POWER CABLE	01	4.c.
☐ USER MANUAL MONITOR	01	10.f.

BOX No 15 (Nw= 5, Gw= 7.5, L= 49, W= 30, H= 49)

CONTENTS		Q.TY	RfNo
☐ IBM 7207 STREAMING TAPE	(S/N 44-01066)	01	4.a.
☐ IBM MOUSE		01	4.a.
☐ CONNECTION CABLE		01	4.a.
☐ POWER CABLE		01	4.a.

BOX No 16 (Nw= 7, Gw= 8.5, L= 50, W= 25, H= 45)

CONTENTS	Q.TY	RfNo
☐ PRINTER EPSON LQ550 (S/N OB37004865)	01	4.e.
☐ LQ550 INSTALLATION AND USER MANUAL	02	10.d.

BOX No 17 (Nw= 8, Gw= 9, L= 48, W= 40, H= 17)

CONTENTS (auxiliary equipment not listed)	Q.TY	RfNo
☐ MULTIPLE SOCKET (X3)	05	
☐ MULTIPLE SOCKET (X4)	05	

Ecocad ITALIA

PACKING LIST

PROJECT No. US/RAF/88/007 - CONTRACT No. 91/123 - PURCHASE ORDER No. 15-1-2123X

PALLET No 3 OF 6

- GROSS WEIGHT (KG) 195.7
- CUBIC MEASUREMENT (CUBIC METERS) 0.98

CONTAINS BOXES No 18-19-20 of No 29 BOXES

ABBREVIATIONS

Q.TY= Quantity; RfNo= Identification No. according to the item numbers of ECOCAD proposal dated 08 march 1991; Nw= Net Weight (kg); Gw= Gross Weight (kg); L= Length (cm); W= Width (cm); H= Heigth (cm).

BOX No 18 (Nw= 78 Gw= 81, L= 80, W= 42, H= 46)

CONTENTS		Q.TY	RfNo
☐ UPS ELECTRONIC CASE	(S/N 971)	01	4.g.
☐ INSTRUCTION MANUAL UPS		01	10.e.

BOX No 19 (Nw= 76, Gw= 78.5, L= 80, W= 42, H= 46)

CONTENTS		Q.TY	RfNo
☐ UPS POWER SUPPLY CASE	(S/N 971)	01	4.g.

BOX No 20 (Nw= 17.2, Gw= 18.2, L= 67, W= 62, H= 35)

CONTENTS	Q.TY	RfNo
☐ IBM 7012 CPU RISC/6000 (S/N 7012-44-01027) (320 Mb + 320 Mb hard discs, 3.5" floppy drive, external SCSI interface, graphic card 8 pl., 1 port RS232C, 1 port centronics)	01	4.a.
☐ CONNECTION/POWER CABLE	01	4.a.

Ecocad ITALIA

PACKING LIST

PROJECT No. US/RAF/88/007 - CONTRACT No. 91/123 - PURCHASE ORDER No. 15-1-2123X

PALLET No 4 OF 6

- GROSS WEIGHT (KG) 217.5
- CUBIC MEASUREMENT (CUBIC METERS) 0.97

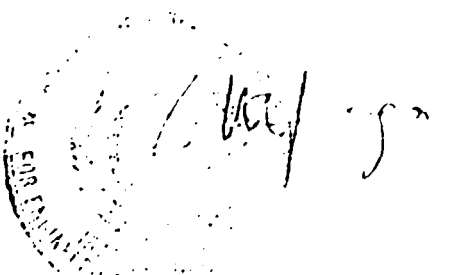
CONTAINS BOXES No 22-23-24-25 of No 29 BOXES

ABBREVIATIONS

Q.TY= Quantity; RfNo= Identification No. according to the item numbers of ECOCAD proposal dated 08 march 1991; Nw= Net Weight (kg); Gw= Gross Weight (kg); L= Length (cm); W= Width (cm); H= Heigth (cm).

BOX No 22 (Nw= 14, Gw= 16.5, L= 70, W= 36, H= 36)

CONTENTS	Q.TY	RfNo
☐ IBM AIX 3.0 OP. SYS. MEDIA (incl. comp. C, TCP-IP, NFS, X-Window) (S/N 85V10MV-85FTNJV)	01	5.a.
☐ WINDOWS 3 MEDIA (S/N 050-031AV300)	01	5.b.
☐ WINDOWS 3 USER GUIDE	02	10.f.
☐ IBM 6100 KEYBOARD (S/N 1395985)	01	4.a.
☐ CONNECTION CABLE	01	4.a.
☐ CARTRIDGES 600 FT FOR IBM RISC/6000	05	4.h.
☐ FLOPPY DISC 1.2 MB DS-HD 5"1/4 FOR PC	30	4.h.
☐ FLOPPY DISC 1.44 MB 3"1/2 FOR PC AND IBM	40	4.h.
☐ PRINTER TAPE FOR LQ1050	06	4.h.
☐ PRINTER TAPE FOR LQ550	06	4.h.
☐ CHINA INK DISPOSABLE PENS FOR PLOTTER	24	4.h.



BOX No 23 (Nw= 21, Gw= 23.5, L= 70, W= 36, H= 36)

CONTENTS (manuals/media)	Q.TY	RfNo
☐ MAINTENANCE INFORMATION FOR THE IBM 6091 COLOR DISPLAY	02	10.a.
☐ SETUP AND OPERATION FOR THE IBM 6091 COLOR DISPLAY	02	10.a.
☐ SAFETY INFORMATION	02	10.a.
☐ GP-DRAFT, MOD, AVO, FEM, 2LIB, 3LIB, IGES3.0, DRIVER MEDIA (S/N GPN01077)	01	5.a.
☐ GP-DRAFT USER MANUAL	02	10.a.
☐ GP-MOD AND AVO USER MANUAL	02	10.a.
☐ GP-FEM USER MANUAL	02	10.a.
☐ GP2LIB USER MANUAL	02	10 a.
☐ GP3LIB USER MANUAL	02	10.a.
☐ PAGEMAKER 4.0 MEDIA (S/N 03-4009-100280134)	01	5.b.
☐ PAGEMAKER 4.0 USER GUIDE	02	10.f.
☐ DR/DOS 5.0 MEDIA (S/N 1174-3000-3028528)	01	5.b.
☐ DR/DOS 5.0 USER GUIDE	02	10.f.

BOX No 24 (Nw= 76, Gw= 78.5, L= 80, W= 42, H= 46)

CONTENTS		Q.TY	RfNo
☐ UPS POWER SUPPLY CASE	(S/N 991)	01	4.g.

BOX No 25 (Nw= 78 Gw= 81, L= 80, W= 42, H= 46)

CONTENTS		Q.TY	RfNo
☐ UPS ELECTRONIC CASE	(S/N 991)	01	4.g.
☐ INSTRUCTION MANUAL UPS		01	10.e.

Ecocad ITALIA

PACKING LIST

PROJECT No. US/RAF/88/007 - CONTRACT No. 91/123 - PURCHASE ORDER No. 15-1-2123X

PALLET No 5 OF 6

- GROSS WEIGHT (KG) 104.5
- CUBIC MEASUREMENT (CUBIC METERS) 1.09

CONTAINS BOXES No 26-27-28 of No 29 BOXES

ABBREVIATIONS

Q.TY= Quantity; RfNo= Identification No. according to the item numbers of ECOCAD proposal dated 08 march 1991; Nw= Net Weight (kg); Gw= Gross Weight (kg); L= Length (cm); W= Width (cm); H= Heigth (cm).

BOX No 26 (Nw= 19, Gw= 21, L= 127, W= 85, H= 3)

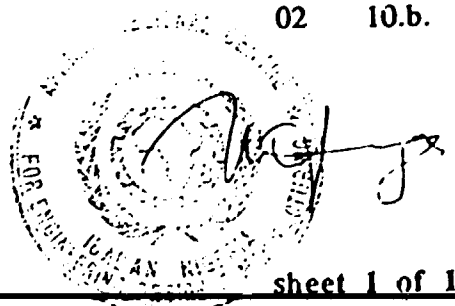
CONTENTS	Q.TY	RfNo
☐ VELUM PAPER SHEETS A0 FOR PLOTTER	150	4.h.

BOX No 27 (Nw= 19, Gw= 21, L= 127, W= 85, H= 3)

CONTENTS	Q.TY	RfNo
☐ WHITE PAPER SHEETS A0 FOR PLOTTER	150	4.h.

BOX No 28 (Nw= 41, Gw= 62.5, L= 160, W= 68, H= 75)

CONTENTS	Q.TY	RfNo
☐ PLOTTER HEWLETT-PACKARD DRAFTPRO EXL 7576 AZ (S/N 3028L13933)	01	4.b.
☐ CONNECTION CABLE	01	4.b.
☐ POWER CABLE	01	4.b.
☐ USER MANUAL	02	10.b.



Ecocad ITALIA

PACKING LIST

PROJECT No. US/RAF/88/007 - CONTRACT No. 91/123 - PURCHASE ORDER No. 15-1-2123X

PALLET No 6 OF 6

- GROSS WEIGHT (KG) 59
- CUBIC MEASUREMENT (CUBIC METERS) 0.4

CONTAINS BOXES No 21-29 of No 29 BOXES

ABBREVIATIONS

Q.TY= Quantity; RfNo= Identification No. according to the item numbers of ECOCAD proposal dated 08 march 1991; Nw= Net Weight (kg); Gw= Gross Weight (kg); L= Length (cm); W= Width (cm); H= Heigth (cm).

BOX No 21 (Nw= 13.5, Gw= 15, L= 68, W= 47, H= 24)

CONTENTS	Q.TY	RfNo
☐ PRINTER EPSON LQ1050 (S/N OQX8015156)	01	4.d.
☐ LQ1050 INSTALLATION AND USER MANUAL	02	10.d.

BOX No 29 (Nw= 34, Gw= 37, L= 70, W= 64, H= 64)

CONTENTS	Q.TY	RfNo
☐ MONITOR IBM 6091 19" COLOR (S/N 23-16317)	01	4.a.
☐ POWER CABLE	01	4.a.
☐ VIDEO CABLE	01	4.a.

ARCEDEM

APPENDIX 2

AFRICAN REGIONAL CENTRE FOR ENGINEERING DESIGN AND MANUFACTURING

CENTRE REGIONAL AFRICAIN DE CONCEPTION ET DE FABRICATION TECHNIQUES

(SPONSORED BY UNITED NATIONS ECONOMIC COMMISSION FOR AFRICA)
(PARRAINE PAR LA COMMISSION ECONOMIQUE DES NATIONS UNIES POUR L'AFRIQUE)

Ref No..... ..... 19.....

ACCEPTANCE DOCUMENT
INSTALLING, COMMISSIONING, TESTING

References: UNIDO Project No. US/RAF/88/007
UNIDO Contract No. 91/123
UNIDO Purchase Order No. 15-1-2123X
ECOCAD No. 6 Packing Lists (enclosed)

All the equipments -hardware and software- supplied as per references have been installed, commissioned and tested by Ecocad personnel.

All equipments have smootly runned for five hours without interruption including power failures.

Remarks: NONE

Arcedem 24 march 1992

ARCEDEM EXECUTIVE DIRECTOR
Dr. Abdel Rahman

Typed and printed in ARCEDEM after installing and commissioning of computers equipments.

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