

S

Hicom 150E Office

Release 2.2 Delta Update

Prerequisite Reading for SVU-42

Revision 6/6/2000

Revision Schedule

Date	Name	Revision
4/3/2000	Andy Brown	Begin first draft
4/7/2000	Andy Brown	Complete first draft
4/17/2000	Andy Brown	Final copy from review comments
4/18/2000	Andy Brown	Remove reference to expanded station capacity (2.3.5)
5/9/2000	Terry Robinson	Revised as part of the Release 1.0 TE28 Course
6/6/2000	Terry Robinson	Correct errors and omissions.

Attention

This document was produced solely for training purposes and should not be used for field reference. Database examples used in this educational document may cause software conflicts with customer applications and should not be used as models.

Printed copies of this material may contain information that is not current. For the most current information refer to the on-line documents on the TAC Advisor.

TABLE OF CONTENTS

1	INTRODUCTION.....	1
2	HARDWARE	1
2.1	ALL SYSTEMS.....	1
2.2	OFFICE PRO	2
2.3	OFFICECOM	3
2.4	OFFICEPOINT	5
3	FEATURES.....	5
3.1	STATION FEATURES.....	5
3.2	SYSTEM FEATURES.....	10
4	UPGRADES	12
4.1	UPGRADES FROM R1.0 TO R2.2	12
5	SERVICE AND ADMINISTRATION	14
5.2	SYSTEM AND DATABASE SECURITY	16
6	SYSTEM INITIALIZATION AND LOGON.....	22
6.1	SYSTEM INITIALIZATION.....	22
6.2	SYSTEM LOGON WITH ASSISTANT E.....	22

1 Introduction

The Hicom 150E has undergone some very obvious changes for release 2.2. Some are not so obvious. The goal of this delta document is to point out those changes from release 1.0 and how they will affect the system's installation, serviceability, and upgrade.

The release 2.2 information that follows will be broken down into 3 categories: hardware, features, and service related changes including the new system access security. Each topic within the 3 categories will be presented in the following manner.

- **What's New:** A brief introduction of the new feature or enhancement.
- **Feature Operation:** How the new feature will be implemented by the user.
- **Programming Note:** How the new feature or enhancement will be installed, reprogrammed.
- **R1.0 Delta:** How the new feature or enhancement differs from Release 1.0

2 Hardware

The amount of new hardware for Release 2.2 is somewhat minimal. There is a new chassis for the OfficeCom. R1.0 OfficeComs can be upgraded with software only, but there are restrictions. There are some new circuit boards for all systems. On the peripheral side there is a new BLF (Busy Lamp Field) module that supplies up to 90 DSS/feature keys with LEDs.

All of the hardware included in this document will have availability dates that may vary somewhat. Check with your Siemens sales representative for the most current information. Affected parts will be designated by “(TBA)” (To be announced.)

2.1 All systems

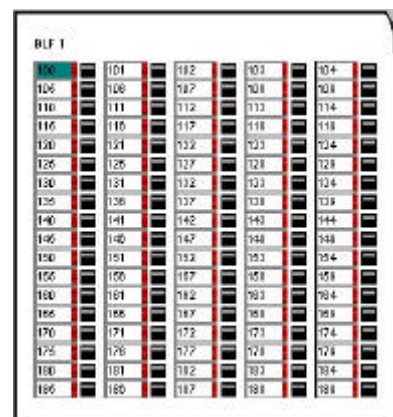
2.1.1 FMC10 (Flash Memory Card,10-Megabyte) (TBA)

What's New: The FMC10 is optional for Release 2.2. It is not required for basic system operation but is required only for the Revision Log feature that can be ordered separately. This feature keeps a history of logon activity that is stored on the FMC10. Release 2.2 basic system packages will be shipped only with the FMC8 cards.

Delta: The R1.0 system used only the FMC8.

2.1.2 BLF (Busy lamp Field) peripheral module.

What's New: The BLF supplies 90 additional key buttons with LED indicators. It can be connected to the Advance Plus or Memory phone only and requires the use of an external power supply. The maximum number of BLFs per system are 12 for the OfficePro (2 per Optiset max) and 6 for the OfficeCom (1 per Optiset max).



Programming Note: To add a BLF in the **Station→ Key programming** screen, click on the "Add KEU" icon as though you were going to add a KEU. You will see the question "Do you want to add a Key Expansion Unit?". Respond with a "NO". You will then be asked if you want to add a Busy Lamp Field. Answer "YES".

The new BLF assignment will have the first 90 extension automatically assigned to the keys. If you want to assign them in a different order then delete all or part of the assignments and reassign the numbers as desired.

R1.0 Delta: The BLF is not available in R1.0.

2.2 Office Pro

Future plans for the R2.2 OfficePro call for a slightly modified backplane with a different connector orientation, some new analog station cards, and a new clock generator.

2.2.1 SLA16N and SLA24N analog subscriber line modules.

What's New: The SLA16N and SLA24N station cards provide 16 and 24 analog ports respectively. They are available only on full size circuit cards and require R2.2 software to operate.

Programming Note: The older SLA16 is not an exact replacement for the SLA16N card. If you need to replace the SLA16N with a spare SLA16 then the system must be reconfigured by removing the SLA16N from the database and then adding the SLA16. All station information will be deleted and must be reprogrammed.

R1.0 Delta: The R1.0 systems will accept only the SLA16 circuit card. The SLA16N and SLA24N are not supported.

2.2.2 CGMC, Clock Generator Module Combined (TBA)

What's New: The CGMC is required for use in digitally networked systems and needs the R2.2 software. The CGMC is available for the OfficePro and OfficeCom system.. The OfficePro can still receive its clock from the central office or from any other acceptable source.

Delta: Replaces the R1.0 CGM. The CGMC board may also be used in R1.0 OfficePro systems

2.2.3 Amphenol connectors on the OfficePro (TBA)

What's New: The connectors on the OfficePro backplane are now male and will require the use of 25-pair cables with female Amphenol connectors. The new backplane also orients the connectors so that standard "off the shelf" cables may be used. Standard cables can now be positioned and dressed downward towards the bottom of the cabinet. The steel retaining clips are still required to secure the cable connectors to the backplane. There are no provisions for hood screws. It is not necessary to upgrade the R1.0 version of cabinet for an upgrade.

R1.0 Delta: The R1.0 backplanes have female connectors that require male ended cables. If standard male ended cables were used, then the cables had to be dressed upward and then looped back down to the bottom of the cabinet.

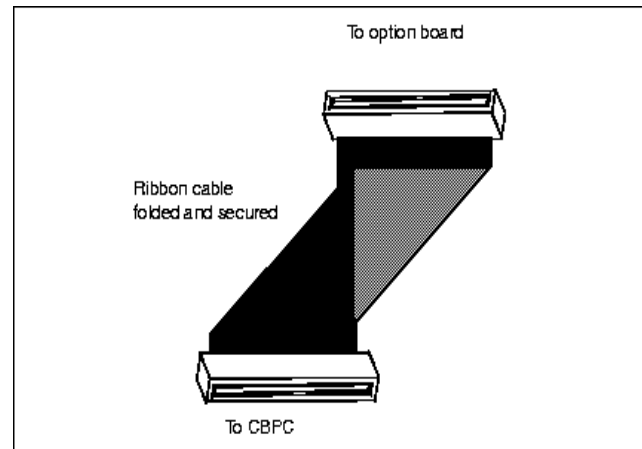
2.3 OfficeCom

The OfficeCom system has, by far, the most new hardware. The cables and circuit cards will be presented to you first, followed by the new chassis or cabinet. The CGMC card outlined previously in the OfficePro section can also be used in an OfficeCom with a CBPC and R2.2 chassis.

2.3.1 OPAL (OPA, Long) (TBA)

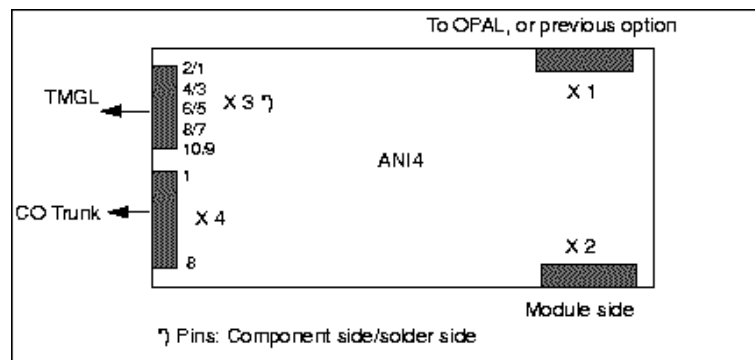
What's New: Due to some changes in card positions the OPAL is required on the R2.2 OfficeCom Chassis. Its longer length is required to reach from the Control board to the Option boards.

R1.0 Delta: The OPAL is different than the R1.0 OPA. The OPAL is now a cable where as the OPA is a circuit board with 2 edge connectors.



2.3.2 ANI (Automatic Number Identification) circuit card

What's New: This card receives the Caller ID information from ground or loop start analog trunks. This information is then presented to the telephone user on any display Optiset. Each ANI card supports up to 4 circuits and more than one may be used in the system.



The ANI card is an option card that installs on the top of the OfficeCom or OfficePoint system. It must be connected to the system by the OPA (R1.0 HW) or the new OPAL cable (R2.2 HW) and is wired in series with the trunk circuits that provide the Caller ID service. The ANI card requires R2.2 software but will work on either the R1.0 or R2.2 cabinet.

Programming Note: While no programming is required to make the ANI card functional it should be pointed out that any seizure code in the analog trunk group being used will

be displayed on the display Optisets. If call return by the missed calls list is desired then this seizure code will be necessary as in R1.0.

R1.0 Delta: Any systems that are running R1.0 software do not support the ANI card.

2.3.3 CBPC, Control Board, Point Com (fully equipped variant) (TBA)

What's New: The new control board for the OfficeCom CBPC now has, what used to be the R1.0 EXTEB (Extender Board), integrated onto one circuit module. This new board requires R2.2 SW and chassis in order to function properly. This board is delivered with all new R2.2 systems. The Siemens part number is Q2932-A201.

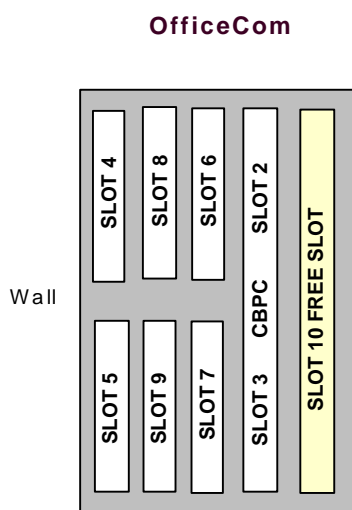
R1.0 Delta: The CBPC replaces the R1.0 CBFC. When using R1.0 chassis hardware with the R2.2 software you must use the R1.0 CBFC.

2.3.4 Chassis and backplane card (CUC) (TBA)

What's New: The new chassis and backplane allow for the use of the new CBPC card. Since the EXTEB is no longer required, there is now a free slot. Additional stations can be added by using one of the full size station cards that are normally used in the OfficePro system. The full size trunk modules are NOT supported in the OfficeCom.

The CBPC card is now located in the next lower slot that originally housed the EXTEB (Extender Board). Even though the physical slot location has changed, it still carries the logical slot numbers of 2 (SLU) and 3 (SLA).

The empty slot now carries the logical slot number of 10. Slot 10 can be used to supply the additional station ports with either the full size SLA16N, SLA24N, or the SLMO24 circuit card. The backplane for slot 10 provides twin connectors that accept an Amphenol ended pigtail cable that can be extended to the MDF.



The R1.0 system cover cannot be used on a R2.2 chassis. A R2.2 cover cannot be used on a R1.0 chassis. Each is built differently.

The TST1 card must now be placed in either slot 7 or 9 in the R2.2 chassis.

Programming Note: The new R2.2 chassis requires the use of the R2.2 software that is made for R2.2 hardware. As an example, the software burner files will be designated as being for either R2.2 HW or R1.0 HW as follows:

R2.2 SW for R1.0 HW: **cw_d468l.b01**

R2.2 SW for R2.2 HW: **cw2d468l.b01** (*3rd character is a "2"*)

R1.0 Delta: For R1.0 hardware, the original CBFC and EXTEB must still be used even if R2.2 software has been loaded onto the FMC. The SLA16N and SLA24N are not supported. The TST1 card must still be loaded in slot 6 for R1.0 hardware using R2.2 software.

2.4 OfficePoint

There is little change to the OfficePoint system. The chassis is the same and supports the CBPC (partially equipped variant), FMC10, and FMC8 as in the OfficeCom. The OfficePoint also supports the ANI card.

2.4.1 CBPC (partially equipped variant) (TBA)

What's New: The partially equipped version of the CBPC does not contain any of the EXTEB based circuitry that is needed for the OfficeCom. New systems will ship with the CBPC and FMC8. The part number of the partially equipped CBPC is Q2932-B201. Existing systems can be operated with R2.2 SW with no hardware upgrade.

R1.0 Delta: The R1.0 system hardware including the CBFC supports the R2.2 software. There is only one version of software for all OfficePoint systems.

3 Features

There are several new features available as well as enhancements to existing features. Following is some helpful information about what the features are, how to implement them, and some programming information as needed. The programming information, as written, is based on the requirement that you are already experienced on R1.0 system programming.

3.1 Station Features

3.1.1 Attendant Console Key Layout

What's New: The attendant console has a standard key layout that is automatically configured when a new database is created in Assistant E.

- **Call Queue Display Key:** Press this key to display the number of calls in the Attendant Queue. The name in programming is the "View Number of Calls" key.
- **Night Key:** Press this key to put the system into night mode.
- **Directory Key:** Press this key to view and search for internal and external numbers (system speed dial) in the directory listing.
- **Clear Key:** Press this key to clear the display in case of a misdialled number. The dialed digits will be cancelled and internal dial tone will be refreshed. This key is very helpful if a headset is being used on the Optiset.
- **Consultation Key:** Press this key to consult with or transfer to an internal party.

R1.0 Delta: Automatic key layout is not available in R1.0.

Programming Note: These keys can also be programmed manually on the Attendant Console or any other display Optiset telephone. The attendant key layout will not be altered in the case of a system upgrade from R1.0 to R2.2.

3.1.2 Extend Undialed Trunk Lines

What's New: This feature allows a subscriber, who is normally restricted from certain dialing patterns, to gain access to an outside line and dial a number as unrestricted. The feature name implies that the dial tone from an outside trunk is actually being transferred to the subscriber. However, this is not the case. The feature is actually a COS override. When the feature is activated the subscriber will have the rights to dial according to both the TR (Toll Restriction) -COS that is applied to the trunk group and LCR-COS 15.

Feature Operation: A subscriber who is restricted from international toll calls needs to make a call over-seas. The subscriber dials the attendant. The attendant uses the OptiGuide and activates the feature "Transfer Trunk". When the attendant releases from the call the subscriber now has internal dial tone and is able to dial the 011 toll call.

Programming Note: For the example above, the TR-COS assigned to the trunk group must be set up to allow 011 or be set to COS 14 as unrestricted. If LCR is also being used then LCR-COS 15 must be set to allow the 011 call as well. If either type of COS is restricted, then the call will still be disallowed. The feature "Extend Undialed Lines" must be activated in the **System Parameters → Attendant Intercept** screen.

3.1.3 Improved Executive/Secretary Group operation and programming

What's New: There are 3 major enhancements to the executive/secretary groups.

1. An automatic key layout configuration provides for DSS keys of other group members and a Boss-Ring Key. The DSS keys allow a visual indication of which member's phone is ringing or in use. The Boss-Ring Key allows the executive's phone to ring in parallel with the secretary's phone. This allows the executive to pick up directly in the secretary's absence.
2. When the executive calls the secretary directly, a long ring cycle (4 sec. on/2 sec. off) allows the secretary to know that it is the executive that is calling. The secretary does not have to read this information in the display.
3. When assigning Executive/Secretary Groups in the screen it is no longer required to program the call destination lists to provide for the call routing directly to the secretary. The routing of the call to bypass the executive is now done automatically as part of the feature. The call destination lists are not used and do not reflect any alternative routing.

Feature Operation: When a call is made or transferred to an executive member of an Executive/Secretary group, the call automatically bypasses the executive and rings the secretary's phone. The secretary can, then, screen the call and transfer directly to

the executive if desired. Only members of the group can dial executives in the group. All other calls to the executive member will always go to the assigned secretary. The executive has the Boss-Ring key on the phone so that parallel ringing with the secretary can be turned on or off as desired.

Caution... If the secretary forwards the phone to another destination, then the forward-to destination is not able to transfer an incoming call to the executive member. Only the secretary phone can do that.

Programming Note: Program the Executive/Secretary groups in the **Call Management** screen. Include the executive and secretary members as required. If you want to use the standard key layout configuration, then check the “Default key assignment” box for the entire group. The keys can then be modified as desired.

R1.0 Delta: In R1.0, the basic Executive/Secretary function was supported. Programming required additional call routing entries in the call destination lists. The automatic standard key layout was not available. If upgrading from R1.0 you must first delete the call destination list entries for the Executive/Secretary group. They are no longer required for R2.2.

3.1.4 Call Waiting Rejection

What’s New: This feature key allows call waiting to be turned on or off as desired by the subscriber who is being camped-on to. What is actually done is cancel the Call Waiting Reject feature assigned in the station parameters.

Feature Operation: To receive call waiting alerts, push the CW Reject key to turn the LED off. To block call waiting alerts, press the CW Reject key to turn the LED on.

Programming Note: For each station that requires the CW Reject Key, first assign the “Call Waiting Reject” feature in the **Stations → Param → Flags** screen. Then assign the CW Reject key to the Optiset. The key temporarily disables the CW Rejection feature.

R1.0 Delta: CW Rejection key not available.

3.1.5 Speed Dial Text Search

What’s New: The speed dial text search allows a subscriber to search the internal directory for, not just internal numbers, but also for speed dial numbers. The search is made by the text component of the entries. This feature requires either an Optiset Memory, Advance Plus, or Standard phone. The display is required to use the directory feature.

Feature Operation: The search is started by pressing the “Directory” key. Then by pressing the keypad digit that corresponds to the search letter desired, the display will scroll to that particular entry and then the OptiGuide scroll keys can be used to locate the name from the list. Once the correct entry is found then the number can be dialed by

going off-hook. The Optiset Memory phone user can press the alpha keys from the keypad instead of the dial pad.

Programming Note: Turn on the system feature “Internal Phonebook” in the **System parameters** → **Display** screen. A “Directory” key can then be added to the Optisets that require this feature.

R1.0 Delta: The search feature not available for speed dial entries.

3.1.6 Call Transfer Following Announcement (OptiPage)

What’s New: Now an external call can be automatically transferred after a group OptiPage. This makes paging and transferring a one step process.

Feature Operation: The party that answers an external call can transfer that call to an OptiPage group. When the announcement is made and a member of the group goes off-hook, the call is then transferred to that subscriber automatically.

Programming Note: To enable this feature turn on “Announcement with connection” in the **System parameters** → **Flags** screen. After the feature is enabled, assign the members to the hunt group as required. Set the hunt group as a “Group Call” and make sure that a call number is assigned. For any incoming calls that require a transfer on page, just transfer to *80 plus the hunt group call number.

R1.0 Delta: Feature not available in R1.0.

3.1.7 Automatic Storage of External Subscriber Number

What’s new: Calling party numbers can now be stored in the missed calls list even if answered. This is a manual process and requires that the external number to be stored is provided by the central office or by a networked system. The numbers delivered to the 150E can be over BRI, PRI, CorNet, or an ANI equipped analog trunk (Caller ID service is required).

Feature Operation: When an incoming call is answered by a subscriber, the calling party information shows up on the display. Use the OptiGuide and scroll to the “Save Number” feature and press the ✓ button. The number is now held in the missed call list, even though it was answered.

Programming Note: Make sure that the station has the “Missed Calls List” enabled. If the call is to be returned by using the missed call list, the seizure code of the trunk group must be assigned as the outgoing digit for LCR. This can be any digit required but will most likely be 9 if the call goes to the central office.

R1.0 Delta: Answered calls in missed calls list not available in R1.0.

3.1.8 Automatic Callback Enhancement (Busy Station Callback)

What's New: The maximum number of automatic callbacks that a subscriber can set has been increased to 5. The number of automatic callbacks that can be set on a single phone has also been increased to 5.

Feature Operation: Make a call to a station that is busy or does not answer. The originating display shows a prompt of "Callback?". By pressing the ✓ key on the phone, you have activated an automatic callback. When the busy phone becomes idle or when the idle phone shows activity, a callback will be made to your phone by the system. When you answer the callback ring, the other party's phone will ring and possibly be answered.

Programming Note: No additional programming is required.

R1.0 Delta: Only one automatic callback available.

3.1.9 Call Forwarding on Busy or Busy/No Answer Condition

What's New: It is now possible to have some flexibility in the call forwarding types of the call destination list in the **Call Management** screen of Assistant E. There are 2 types of forwarding... forward on idle and busy, and forward on idle only. An important concept to remember here, is that busy means completely busy. To be busy, the station must have Call Waiting Rejection turned on. This will prevent any camp-on to the station. A station in a call waiting state, is not really busy.

Feature Operation: Let's start with the Busy/No Answer condition. When you call a phone that is programmed to forward under both busy and no answer, the call will do just that. If the phone is idle, the call will forward in the number of cycles specified in the call destination list. If the phone is busy then the call will forward immediately.

Next, the forward on idle only state. If the phone is idle then the call will forward based on the number of cycles specified in the call destination list. If the phone is busy then the caller will get a busy signal or will camp-on depending on the "Call Waiting Rejection" feature flag of the station being called.

Programming Note: For any destination list with call forwarding targets, set the RNA option as follows for the type of forward that you want. Remember, for a station to be truly busy, the CW Reject feature must be enable for the station.

- Forward on idle and busy: Set RNA to "Yes" and enable "CW Rejection"
- Forward on idle only: Set RNA to "No". CW Reject enabled will provide busy signal on busy. CW Reject disabled will provide camp-on.

R1.0 Delta: Feature not available in R1.0

3.1.10 Reset Active Features

What's New: The feature code #0 is now available to reset active features on a telephone. By dialing this code you can turn off all call forwarding and cancel all automatic callbacks.

Feature Operation: Go off-hook and dial #0. Call forward and callbacks are cancelled. #0 is a cancel only code.

Programming Note: No additional programming required.

R1.0 Delta: Not available on R1.0

3.2 System Features

3.2.1 Increased Capacity on Manual Call Forwarding Hops

What's New: Manual call forwarding can now make up to 5 hops. It doesn't matter how many stations are forwarded in a row, the actual call will still follow a series of 5 hops.

Feature Operation: As an example, if station 1 is forwarded to station 2, Station 2 to Station 3, 3 to 4, 4 to 5, and 5 to 6, then by calling station 1 it would be possible to be answered by station 6. Remember, this is manual call forwarding. There is not an option for forward on no answer.

It is also possible to have more than 5 stations forwarded. The call will only forward to a maximum of 5 hops. As in the example below there are 10 stations that are forwarded. Regardless of who you call it will only make 5 hops. If you call station 4 then station 9 will receive the call. In this example, station 10 will not be allowed to forward back to station 1. If this was attempted then station 10 would receive an error in the display of the phone of "No Chaining".

1 → 2 → 3 → 4 → 5 → 6 → 7 → 8 → 9 → 10

Programming Note: No additional programming is required.

3.2.2 ITR Connection Groups for System Speed Dialing

What's New: System speed dialing entries can now be assigned an ITR Connection Group number to allow or restrict other station and trunk devices to specific ranges of speed dial numbers.

Feature Operation: This feature is totally transparent to the end user. The user will either be allowed or restricted by the ITR group assigned to the phone and the group assigned to the speed dial index that is attempted. The ITR Connection Group matrix determines whether or not the 2 groups are allowed to work together. This is the same basic ITR concept from release 1.0.

Programming Notes: The ITR groups are assigned to a range of speed dial numbers in the **Class of Service → Connection Group Assignments** screen. In the box for speed dial assignments, set up specific ranges and assign the desired connection group. It is ok to assign ranges that overlap. The overlap area will then be effectively assigned to more than one connection group. This must be taken into account when assigning the connection group matrix. The matrix works the same as R1.0.

R1.0 Delta: Connection groups not available for speed dial entries.

3.2.3 Least Cost Routing Enhancements

What's New: Increased capacities for dial plans, route tables, and out dial rules.

Description	R2.2	R1.0
Dial Plans	514	300
Route Tables	254	16
Out Dial Rules	254	50

Programming Note: There is also a sort function added to the tables that will allow you to sort by ascending and descending in order to see the same search order that the switch uses to process LCR calls. Use the right mouse button in Assistant E to activate the sort.

R1.0 Delta: There was a lower quantity of table entries as seen in the chart above. There were no sorting functions.

3.2.4 CDR Data Output Enhancement (Printer Pipe through Optiset)

What's New: CDR and UCD output data can now be sent to a printer or other data collection device that is connected to an Optiset's Control Adapter. The data is sent by the 150E over one of the B-Channels to the Optiset. The data is then sent from the control adapter to the data collection device over a straight pin to pin communications cable for printing or storage. The maximum distance that the data can be sent is the same for that of the Optiset (1600 feet without PS, 3200 feet with PS).

Note that the Printer Pipe mode cannot be used with the OfficeLook® call data management application. The RS232-2 data port must be used.

Programming Note: In the Call Charge Data screen, the CDR output is set up as usual except that instead of the RS232 port, select the UPN port and then define which UPN port (station call number) will have the control adapter. The LAN option does not apply to the U.S.

Port settings for the data collection device is 9600 bps 8 data bits, no parity, 1 stop bit.

R1.0 Delta: The printer pipe mode to Optiset is not available in R1.0. Only the RS232 output is supported.

4 Upgrades

Service changes include new upgrade and logon procedures. Remember, always refer to the Upgrade procedures on the TAC Advisor before attempting an upgrade.

4.1 Upgrades from R1.0 to R2.2

4.1.1 Office Pro Upgrade General Information

What's New: OfficePro Upgrades from R1.0 to R2.2 require only the R2.2 SW and a new or existing FMC8.

Programming Notes: See paragraph 4.1.4. and 4.1.5.

4.1.2 OfficeCom Upgrade General Information

What's New: There are 2 versions of R2.2 software. One version is for the R1.0 hardware and CBFC that is being upgraded and the other version is for the new R2.2 chassis with the CBPC and extra slot 10 for system expansion.

If the new slot 10 is not a requirement for system expansion then the R2.2 software replacement and the FMC8 is all that is needed.

Notice that the software description for the R1.0 HW has an underscore for the 3rd character. The SW for the R2.2 HW has a 2 as the 3rd character to designate Rel. 2.

- R2.2 SW for R1.0 HW: **cw_d468l.b01**
- R2.2 SW for R2.2 HW: **cw2d468l.b01** (*The 3rd character is a "2"*)

4.1.3 OfficePoint Upgrade General Information

What's New: OfficePoint upgrades from R1.0 to R2.2 require only the R2.2 SW and a new or existing FMC8. There is only one version of R2.2 SW for the OfficePoint.

4.1.4 General Upgrade Information for All Systems

What's New: Besides installing the FMC with the R2.2 operating system, upgrading from R1.0 to R2.2 requires that the customer data base (.kds) be converted from R1.0 to R2.2 before it is uploaded to the switch. Since the USA did not get the R2.0 version of SW no provisions were made to convert a database directly from R1.0 to R2.2. Therefore, this will be a 2 step process. The database must first be converted from R1.0 to R2.0. Then it must be converted from R2.0 to R2.2.

Programming Note: Following are some important points to remember when doing an upgrade.

- Analog trunk circuits must never be connected to the system when the TMGL card is not plugged in. Permanent damage to the system could result.
- There is no procedure to convert from one hardware platform to another.
- The APS transfer is not possible when upgrading from R1.0 to R2.2.
- It is strongly recommended that any new release 2.2 hardware or software features be added AFTER the complete upgrade procedure has been completed.
- Be sure that the FMC has the appropriate software version for the upgrade that you are attempting. Remember there is a R2.2 version of software for R1.0 hardware and a version for R2.2 hardware OfficeCom.
- If you are upgrading from R1.0 OfficeCom hardware to R2.2 OfficeCom hardware you must uninstall the TST1 card from slot 6 and reconfigure it into either slot 7 or 9. For specifics see the upgrade instructions on TAC Advisor when they are available.
- When you install the R2.2 Assistant E, be sure to answer YES to the prompt of "Overwrite INI file?" The R2.2 and R1.0 will use the same ASS_150E.INI file location in the C:\WINDOWS\.

4.1.5 Upgrade Procedures

This upgrade procedure that follows is a condensed "lab exercise" version of what an actual field upgrade would entail. The fully documented upgrade procedure will be available on the "TAC Advisor" in time for the actual 2.2 release. It is very important that you use these procedures when conducting a field upgrade.

1. Start the R2.2 Assistant E and transfer the KDS in the R1.0 system to the PC. Be sure to log on to Assistant E with the R1.0 password and no User Name. After the download is completed, save the KDS as **RELEASE1.KDS** from the FILE menu.
2. Make notes of, and then delete, any Executive/Secretary groups and destination lists assignments for those groups. The destination lists entries for Executive/Secretary groups will not be required in R2.2.
3. Make notes of, any system timer changes that are site specific. The upgrade will take all timers back to default values.
4. Now, save the KDS as **RELEASE1B.KDS**. Close the database from the FILE menu.
5. Log on to Assistant E (Settings → Password Level) with the default service administration name (31994) and password (31994). Convert the RELEASE1B.KDS file to release 2.0 as follows. From the FILE menu, click on "Convert customer database...". Click NEXT. Change the version to "RELEASE 2.0" and pick the appropriate system expansion type and country version (USA). Click NEXT. If you see the Assistant E Warning "Offline generated database! No user rights checked.", click OK.

6. Notice that the KDS file name is now **OFFLINE.KDS**. This was changed as part of the conversion process. Now, save the database as **RELEASE20.KDS**. You must rename the file to upgrade to R2.2.
7. Now convert the R2.0 database to R2.2 in the same manner. Save the upgraded file as **RELEASE22.KDS**.
8. Power down the system and remove the Release 1.0 Flash Memory Card.
9. Disconnect the analog trunks from the system.
10. Install the Release 2.2 Flash Memory Card and turn to Steps 1–5 on page 22 of this document. Once you have completed Steps 1-5 return to step 11 below.
11. Set the system's baud rate to 19,200, and to reset the time and date.
12. While the system is rebooting, recreate any previously deleted executive/secretary combinations in the **RELEASE22.KDS**. Use the R2.2 enhanced programming method for Executive/Secretary groups. Save the KDS file.
13. Make sure the system has booted up to the English language and upload the entire R2.2 upgraded KDS file into the system.
14. Reconnect the analog trunks and make test calls.
15. Download a fresh KDS file from the system to the PC. This will be necessary for any delta uploads. By default this will be the **LASTLOAD.KDS**.
16. Save the KDS as **RELEASE22_FINAL.KDS**. This is your backup.

5 Service and Administration

The biggest changes in the R2.2 software are in the Service and Security area. The new security concept is very comprehensive. User IDs and passwords are now an integral part of the KDS file and 150E system. There are new procedures which must be followed for a successful upgrade. There is also an ISDN Trace program that allows a more thorough inspection of call monitoring data.

5.1.1 Assistant E

What's New: The R2.2 Assistant E is still compatible with Windows95® and Windows98®. It is now compatible with WindowsNT®. It is no longer supported for use with Windows® version 3.xx.

There are some cosmetic changes that are obvious such as the “explorer bar” to the left of the main screen that can be used to navigate the tool without using the drop-down menus or tool bars. You'll notice that some of the lists and tables now have the capability of sorting the data. The sort functions can be activated with the right mouse button. Included are the stations, LCR, and system speed dial.

The R2.2 Assistant E program is downward compatible with R1.0 and earlier R2.2 software versions. When the new tool is released, it will be the only tool you need. The R1.0 Assistant E will no longer be supported. The R2.2 version will be required

to manage any system upgrades to R2.2.

The new Assistant E also includes a separate program that is useful in troubleshooting ISDN traces. The tool is called “ISDN Trace”. It provides a more detailed look at what goes on over the ISDN trunks by defining the hexadecimal data that is included in the call monitor data text.

Programming Note: It is now necessary to download a fresh KDS file from the system before any changes can be uploaded as a delta. If the database is closed or the 150E is restarted, then another new KDS must be downloaded before any more changes can be uploaded as a delta. A complete, offline generated database upload can only be performed on a defaulted system.

To run the ISDN trace tool, set up a “call monitor” session on the ISDN port in question. This is the same as in R1.0. Save the monitor data as a text file in the monitor screen. Launch the ISDN Trace tool from the **Start → Programs → Hicom 150E Office** menu. Open the file to be traced and then Wordpad® will open with the expanded information about the ISDN trace monitor.

The R2.2 Assistant E will save the KDS file to the FMC8 or FMC10 every 24 hours. You can also save the KDS when desired by using the Assistant T programming mode. Use the Code 28-1-1 to write the database to the FMC8. When you exit the Assistant T session, the write procedure will start and it normally takes less than 30 seconds. Use the code 28-1-2 to READ the database from the FMC to the system’s memory. Caution!... when you READ the database the system will restart after the transfer has completed.

The default password information for a R2.2 system or opening a R1.0 database is: User ID = 31994 and Password = 31994. If you are logging on to a R1.0 system or R1.0 database the User ID = (leave blank) and Password = 1. This is just the default. The next section on Security, details more information about the R2.2 Assistant E and 150E system.

R1.0 Delta: R1.0 Assistant E has no ISDN trace, sort functions, and cannot be used to administer any R2.2 system.

5.1.2 Assistant C

What’s New: Assistant C will now allow the customer to print their own Optiset labels. The same delta upload restrictions will be placed on Assistant C as in Assistant E. Assistant C will be available when R2.2 is released for General Availability.

5.2 System and Database Security

5.2.1 Passwords and Security

What's New: Or more appropriately, what isn't new. The system and database access security has been completely revamped for R2.2. The password is, no longer, just the number "1". There will be 2 basic options when initializing a system. The options are either "USA" or "Europe". When the option of "USA" is chosen, a standard entry password will be used to administer the system with Assistant E, C, and T. This is the recommended initialization setup mode.

When the "Europe" option is chosen it will be possible to have up to 16 individual passwords, each assigned to one of 6 different user groups. A user group is a specific area of database access such as the service administration (default) or development access, or even confidential information like authorization codes in CDR.

These new security access codes are embedded in the customer database as well as the 150E system that uses that database. They are a matched set. You must use the correct password to gain access, not only to the system, but also to open an existing database KDS file. If you want to download a fresh KDS file from an operating system you must launch Assistant E and enter the correct user ID and password for the system. A security check is initiated and then you'll have access.

As mentioned in a previous section, the default password for Assistant E as well as the password for a defaulted R2.2 system is: User ID = 31994, and Password = 31994. The Siemens service community is recommending that the default password be retained in every 150E system for 2 reasons. First, to alleviate the possibility of a complete reconfiguration in the event that a password is lost. Second, when new user IDs and passwords are assigned to end user customers, that particular level of access may be inaccessible to the service personnel that need it the most. If the service level access is changed then TAC and other service personnel no longer have access to that system. There is more information on this topic coming up.

Also new for R2.2 is the system's ability to keep a security log of the system's accesses. The log indicates who logged in by user ID and password. Also, included the time of the access and the action performed. This log data can be viewed, archived, and printed from Assistant E. This log information is stored permanently only on the FMC10. The FMC8 does not support this feature. Also logged, are failed attempts to access the system.

5.2.2 Password Security Concept







The following slides will depict how assigning new user groups and passwords doesn't necessarily add new channels of access. More than anything, it reassigns them to the new users. The column headers are the different user groups that are or can be assigned. Down the left side of the matrix is the listing of the particular areas of programming that the user groups have access to.

5.2.2.1 Default Access

The slide show starts with the default access of Assistant E and a defaulted 150E system. The “Service Admin” column is the default access with a user ID/password combination of

31994/31994. From the matrix you should be able to see that this user group has access to all areas of programming on the left except the development level of maintenance. “Service Admin” is the only user group assigned.

1. Security Default Access

Description	User Admin	Revision Log File	Service Admin	Cust Admin	CDR Admin	Develop
User Administration Groups & Passwords						
Log Files Evaluate and Archive						
Service Maintenance Default 31994						
Customer Data Confidential						
Customer Data Non-Confidential						
CDR Call Charge Information						
Development Level System Maintenance						

3/6/2000

Hicom 150E R2.2 Update - Security










1

5.2.2.2 Add Customer Access

Now, suppose that the customer wanted to assign a user group and password for “Customer Access” in order to administer the normal customer level programming. When the customer user group is assigned all access to confidential customer data and CDR charge information has been

reassigned to the customer. The service administrator (service person or installer) no longer has access to these areas of programming. They must know the customer level user ID and password to view or changes the database. Fortunately, at this point the service person still has access to the “User Administration” level and can reset the passwords. Passwords cannot be viewed. They can only be deleted and added.

2. Add Customer Access

Description	User Admin	Revision Log File	Service Admin	Cust Admin	CDR Admin	Develop
User Administration Groups & Passwords						
Log Files Evaluate and Archive						
Service Maintenance Default 31994						
Customer Data Confidential						
Customer Data Non-Confidential						
CDR Call Charge Information						
Development Level System Maintenance						

3/6/2000









Hicom 150E R2.2 Update - Security

2

5.2.2.3 Add CDR Call Charge Administration

The customer just appointed someone to be in charge of the CDR call charge information. They

3. Add CDR Call Charge Access

Description	User Admin	Revision Log File	Service Admin	Cust Admin	CDR Admin	Develop
User Administration Groups & Passwords						
Log Files Evaluate and Archive						
Service Maintenance Default 31994						
Customer Data Confidential						
Customer Data Non-Confidential						
CDR Call Charge Information						
Development Level System Maintenance						

3/6/2000

Hicom 150E R2.2 Update - Security









3

want to add the “CDR Call charge” user group and password. Notice what happens when this user is assigned. The CDR level of access is moved to the new CDR administrator and away from the person that had customer access. Only the CDR administrator does.

5.2.2.4 Access to Log File Data on the FMC10

Now, a new user group and password is assigned for the sole purpose of viewing the revision log data. When this group is assigned, the service person no longer has access to that level.

4. Add Revision Log File Access

Description	User Admin	Revision Log File	Service Admin	Cust Admin	CDR Admin	Develop
User Administration Groups & Passwords						
Log Files Evaluate and Archive						
Service Maintenance Default 31994						
Customer Data Confidential						
Customer Data Non-Confidential						
CDR Call Charge Information						
Development Level System Maintenance						

3/6/2000









Hicom 150E R2.2 Update - Security

4

5.2.2.5 User Administration for Groups and Passwords

Along the same lines if the user group for “User Administration” is assigned, this user has complete and total control over the user ID and password assignment. This level of access will

5. Add User Administration Access

Description	User Admin	Revision Log File	Service Admin	Cust Admin	CDR Admin	Develop
User Administration Groups & Passwords						
Log Files Evaluate and Archive						
Service Maintenance Default 31994						
Customer Data Confidential						
Customer Data Non-Confidential						
CDR Call Charge Information						
Development Level System Maintenance						

3/6/2000

Hicom 150E R2.2 Update - Security











5

be removed from the service person as well. This user could potentially lock out all other users. If this happened and the individual administrator could not be reached, then there would be no way to access the 150E system. The system would have to be defaulted and a new database built from scratch to be uploaded. This is a very critical user group.

5.2.2.6 Development level access

At this point, if the development access is assigned by the User Administrator, then a

6. Add Development Access

Description	User Admin	Revision Log File	Service Admin	Cust Admin	CDR Admin	Develop
User Administration Groups & Passwords						
Log Files Evaluate and Archive						
Service Maintenance Default 31994						
Customer Data Confidential						
Customer Data Non-Confidential						
CDR Call Charge Information						
Development Level System Maintenance						

3/6/2000














Hicom 150E R2.2 Update - Security

6

development person would have access to the development level of advanced parameters like certain timers, and other system feature switches. The developer would also have access to the service maintenance programming and non confidential customer information. The development level will always have access to everything that the service administration has, plus the development areas.

Now, to recap, take a look at matrix number 5. After all of these new user groups have been assigned, what does the service person have access to? Service programming of the system and non-confidential customer data. The customer has access to all of the customer level

Add Development to Default

Description	User Admin	Revision Log File	Service Admin	Cust Admin	CDR Admin	Develop
User Administration Groups & Passwords						
Log Files Evaluate and Archive						
Service Maintenance Default 31994						
Customer Data Confidential						
Customer Data Non-Confidential						
CDR Call Charge Information						
Development Level System Maintenance						

3/6/2000

Hicom 150E R2.2 Update - Security

7

programming as in Assistant C, except for CDR data, and the CDR

Administrator has access to only CDR information.

Had the development user group been assigned on a default database then the developer would have access to everything as shown below.

5.2.3 Description of User Group Rights

5.2.3.1 User Administration

- Setting up users and assigning users to user groups
- Deleting users
- Display the users in the system, their user groups, the date that the password was created and the date of the last log on.

5.2.3.2 Revision Log

- Evaluate and archive log files
- Reading the system error stack
- Read access to the system data. The confidential customer data excluded.

5.2.3.3 System Maintenance for Service

- This user group has all access rights to all administrative data in the system and execution rights to all available actions in the system, provided that the other user groups have not been assigned any users. Development data is excluded.

5.2.3.4 Customer Administration

- All access rights to data that is to be administered by the customer. Similar to Attendant C.

5.2.3.5 Call Detail Recording

- All access rights to the configuration data of call detail recording
- Access rights to call detail records and the call detail counter

5.2.3.6 Development

- All access rights of the system maintenance user group
- Setting and reading certain parameters which must not be modified by any of the other user groups.

5.2.3.7 General Rules of User Groups and Passwords

Assistant E and Assistant T

1. Every user group can contain several users.
2. A user can only be assigned to one user group.
3. The password is displayed in the form of asterisks or stars.
4. The password is not verified in the system until the [Enter] key is pressed.
5. Each invalid logon attempt is logged in the system as unauthorized and is denied.
6. The system must be defaulted and reprogrammed if the last authorized user to be set up has forgotten the password.
7. The value range of the characters corresponds to the Optiset E character set. If you want to use a 2 line display Optiset to logon the system, the user ID must be digits only.
8. Names and passwords must not be longer than 16 characters.

Assistant E only

1. Users are setup, modified and deleted immediately while on-line as soon as the [Enter] key is pressed.
2. Each time the user logs onto the system, a display appears indicating the date that the password was set up and the date the password was last used.
3. The user's password must be deleted and reset by another authorized user if it is forgotten.

6 System Initialization and Logon

6.1 System Initialization

As previously discussed, a R2.2 system requires the entry of a user name and password. Before we can get to the point of logging on a system and programming, the system must be initialized for operation in the United States. Just like R1.0, it requires a procedure to get there. However, it is not the same as R1.0.

The following steps will walk you through the process of initializing a system, however they do not include the one new step of choosing a startup of “USA” or “Europe”. At the time of this writing the only steps available are the steps that pertain to the “Europe” option. For the latest information about system initialization, see the on-line updates on the TAC Advisor.

1. Make sure that the system is properly installed with all of the required R2.2 specific HW including the FMC and any desired peripheral circuit cards.
2. Power up the system and press the reset switch on the CBMOD, CBPC, or CBFC for more than 5 seconds to ensure that the system will boot into a default state. The system should boot up with German Optiset displays and dial tone.
3. Using one of the first 2 Optisets in the system, set the display to English by dialing the code sequence ***48-12 ✓**.
4. Next you must set the country code. This action will require that you use Assistant T and as a result you will have to log on to the system for the first time. Dial the following code sequence. ***95-31994 ✓ 31994 ✓ 31994 ✓ 31994 ✓ 29-5-*52** . The system will reboot automatically. When it is operational again, the system will be set for use in the U.S. The reason you must enter 31994 4 different times is because the system is forcing you to change the user name and password. This way, they are kept the same as the default.
5. All subsequent logons will require the user name and password 31994-31994 just one time. *If you started this procedure from page 14, return there now to step 11.*

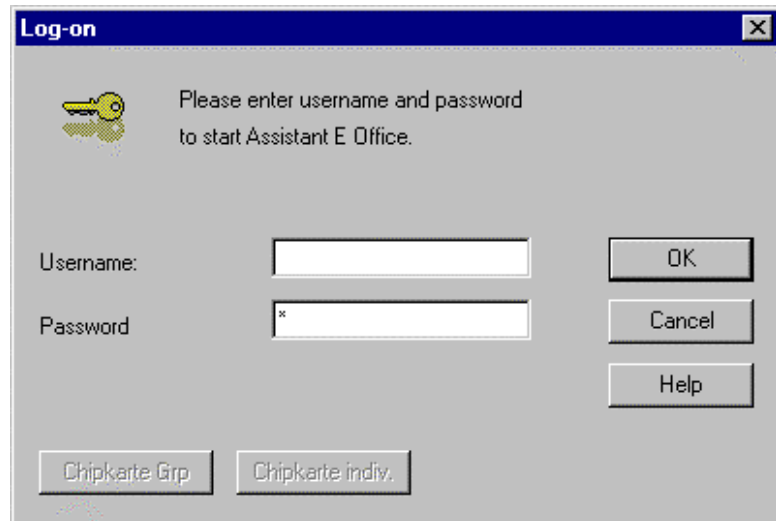
6.2 System Logon with Assistant E

6.2.1 Release 2.2 Logon

This dialog box appears once Assistant E has been started. The default user name and password combination, 31994/31994, entered here is verified in the 150E when the user logs on. Both are required when logging on to a R2.2 system. After the initial logon the service administrator may add other user name and password combinations.

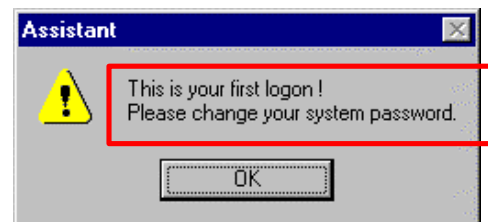
6.2.2 Release 1.0 Logon

Assistant E is fully downward compatible with R1.0 systems. The logon entry is used to determine if the system is R1.0 or R2.2. A user can only log on to a R1.0 system if no user name is entered and the password defined in Assistant E R1.0 is entered. For a R1.0 logon, leave the "Username" blank and enter the default R1.0 password of "1".

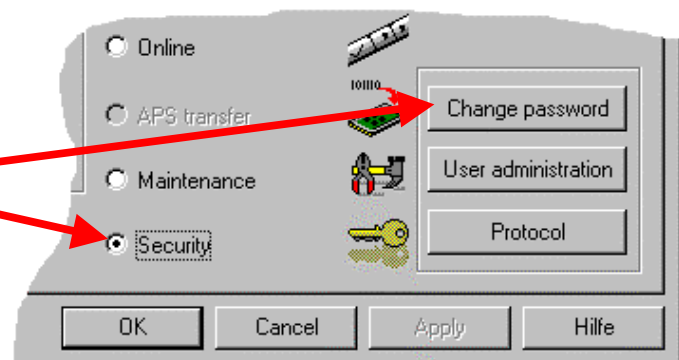


6.2.3 Changing Passwords with Assistant E

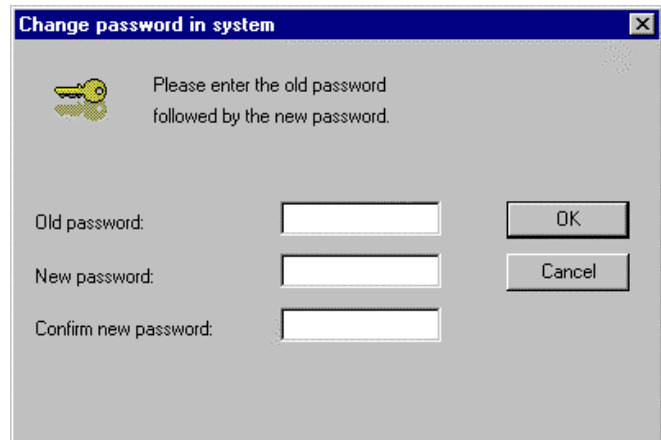
The user name and password combination entered in the Assistant E logon windows is verified in the Hicom after the database KDS is uploaded to the system. The following message is displayed if this combination is being used for the first time.



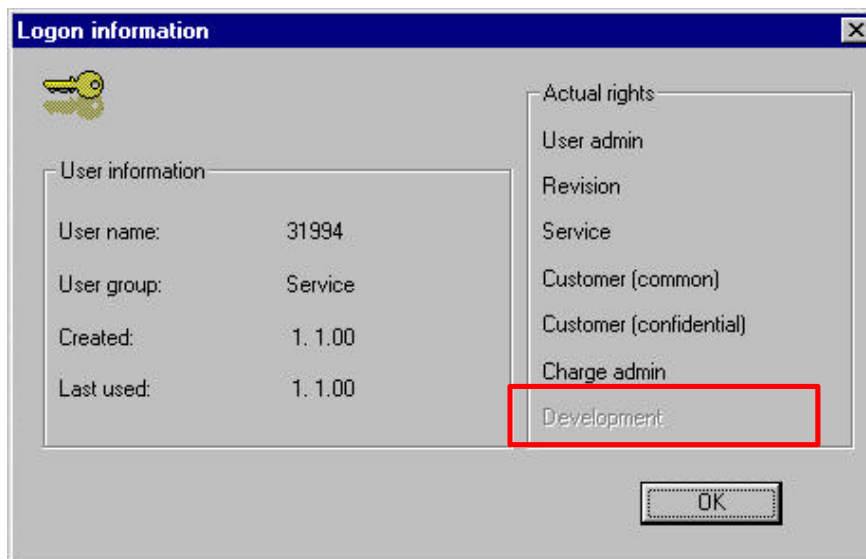
After clicking "OK" you must then select the radio button for "Security" and click on "Change Password".



This dialog box prompts the user to change the password in the 150E. The default password should not be changed.



6.2.4 Logon Information



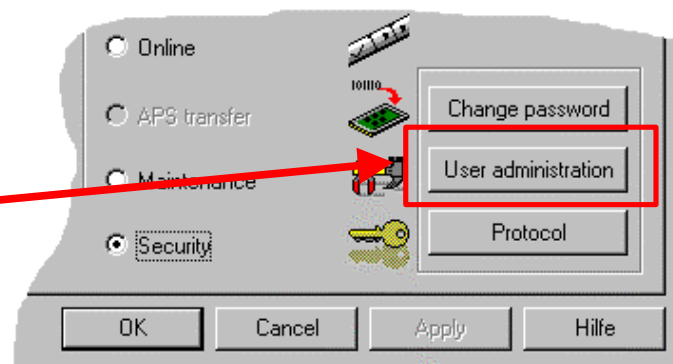
Every time you log on to the system to download a KDS, Upload a KDS, or Open a KDS the following dialog box will be displayed. The current user name is displayed on the left with the associated rights displayed on the right. The dialog box here is for a default system so the Service user group is shown to have access to all areas of programming except the development level which is grayed out.

You can clear this dialog box by clicking on "OK" or it will disappear after a short time out.

6.2.5 User Administration

6.2.5.1 Default User Groups

User groups can be viewed in the "User Administration" screen. Highlight the "Security" radio button in the "Maintenance" screen and then click on the "User Administration" button. The following screen will be displayed. It is important to remember that in order to view or edit User and password information, you must have the rights to the "User Administration" user group.



User administration				
	User name	User group	Password	Created
1	AMHOST	<no group>	*	1. 1.00
2	31994	Service	*	1. 1.00
3	*95	<no group>	*	1. 1.00
4		<no group>		0. 0.00

Up to 16 name/password combinations can be assigned. Each combination can be assigned to one of six possible user groups. Each user group contains predefined user rights.

The entry for user name “*95” is a default that is used for customer administrator logon with Assistant T without a password and must not be modified or deleted. The entry for user name “AMHOST” is also default and should not be deleted or modified in any way.

6.2.5.2 Assign a New User Group

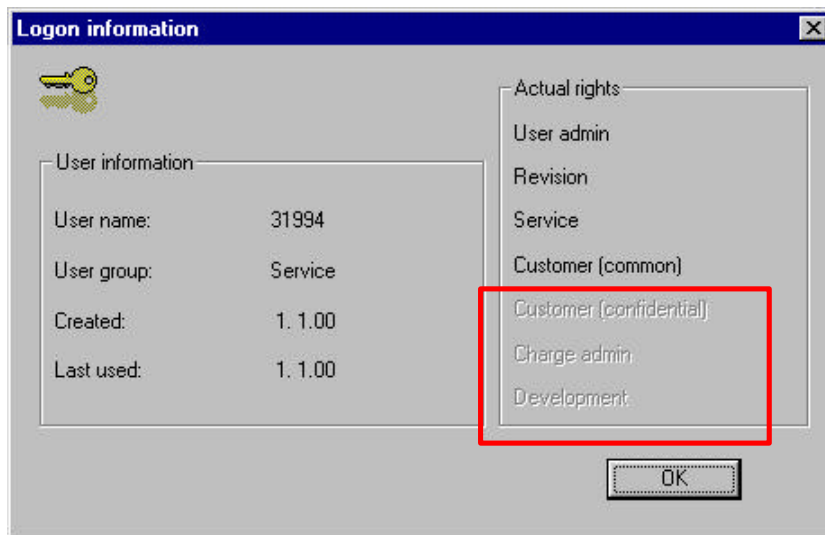
Other user name/password combinations can be set up with Assistant E. When a new user is assigned and entered, the information is immediately sent to the 150E system where it is stored in memory and becomes active.

User administration				
	User name	User group	Password	Created
1	AMHOST	<no group>	*	1. 1.00
2	31994	Service	*	1. 1.00
3	*95	<no group>	*	1. 1.00
4	12345	Customer	*	0. 0.00
5		<no group>		0. 0.00

The “Customer Administration” group was set up here as an example. This results in the permanent deactivation of the customer level *95 without password.

6.2.5.3 User Rights

Now, the new customer user group has been created. If you log on to the system as the service administrator (31994), you access rights have changed. Notice that the rights for “Customer confidential”, and “Charge Admin” are now grayed out. For access to these areas you would have to enter the new user name of “12345” and the appropriate password. The “Service” group never had access to “Development”.



6.2.5.4 Offline Database Generation

If you create a database offline with Assistant E, it does not initially contain any information about user groups. This is displayed by the following message box when the KDS file is opened. The user must have logged onto Assistant E with one of the user groups defined in the 150E in order to upload the offline generated database

