FUJITSU Software MT9750 (Emulation of the DSS9750 family for connection to BS2000 systems)

Version 9.0A
June 2019

Readme file

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1 General

This file contains information on using the MT9750 V9.0A emulation that is not contained in the online help or in the manual.

Please note that the current MT9750 Product Manual is outdated. It will be updated in the next MT9750 release.

The release level is that of: June 2019.

This and other current Readme files are shipped on the SoftBooks DVD and are available online at http://bs2manuals.ts.fujitsu.com/.

2 Installing the product

The installation mode depends on the setting of the "autorun" option.

If the "autorun" option has been set, the installation program is automatically started when the CD-ROM is inserted.

If the "autorun" option has not been set, you start the installation program by selecting the menu items

"Start -> Run"

then selecting the CD-ROM drive and the program "SETUP.msi".

The installation program requires now, among other things, specification of the language in which the installation is to be performed. In addition, the installation selection only permits the selection of programs.

The MT9750 V8.0B (and higher) installation program has been modified and differs from that of V8.0A in terms of its interface and functionality. This has the consequence, that older versions (until including V8.0A) must explicitly be uninstalled before installing 9.0A. Registration of programs is sufficient for the operating system requirements.

The installation program supports

- the installation of the product and its utilities,
- the reinstallation of components,
- the updating of a version from V8.0B onwards

The delivery unit is a licensed product. After successful installation the product has to be activated.

Since Windows Vista the UAC (User Account Control) is introduced. Therefore appropriate actions are necessary to insert a license for MT9750.

The UAC controls the actions, which are initiated by an user or by the system and then decides if these actions can be executed with the help of the defined Security Polices.

For further instructions please read the document “Doc/Licensinghelp.pdf” on your installation medium.

3 Changes with MT9750 V9.0

3.1 Tooltips

Tooltips for toolbar buttons of new user interface were added.

3.2 Programmable keys loaded by an external program

After programmable keys were loaded by an external program and the session is going to be closed, Save As… dialogue is opened to provide User with possibility to save the changed programmable keys.

In addition, if the externally loaded programmable keys length exceeded 512 bytes limit of MT9750 storage, a new warning message is shown to inform the user.

3.3 Run Macro for each session

After a macro is created, it is possible to add the macro to a session by selecting the macro file on the Advanced Configuration section of Edit dialogue. So each time session is opening, corresponding macro is executed.

3.4 Copy/Paste

Ctrl+C and Ctrl+V combinations was added into Keyboard Mapping files provided by installation package.

In addition, Auto-Copy to Clipboard (after area is selected by mouse) is added, so immediate Paste is possible (by right mouse button click).

3.5 Alt + number

Alt + number switching between sessions method was provided.

4 Changes with MT9750 V8.0

4.1 Supporting IPv6 networks

Current Microsoft Windows Operating systems are supporting the IP V6 network protocol stack. As of Windows 7 and Windows Server 2008 they are activating IP V6 by default.

No additional settings for a MT9750 session are necessary.

If the name resolution (DNS request) for the hostname defined for the MT9750 session is delivering a V6 address, the connection is established on the IP V6 stack automatically.

4.2 New User Interface

A new user interface improves functionality and usability of MT9750 emulation program.

4.2.1 Multiple window interface

Multiple instances of MT9750 emulation program can be run. The application can be run with the following configurations:

- One session for each emulation window as a SDI (Single Document Interface)

- Multiple sessions for one emulation windows as a MDI (Multiple Document interface)
- Multiple sessions in multiple emulation windows, or a mix (SDI+MDI mix)

4.2.2 Toolbars Instead of Function Keys Window

The “Function keys” window was replaced by “Function keys” toolbars. The toolbars can be configured and docked to the emulation window edges.

To configure the toolbar, go to the main menu and navigate to the “Settings->Toolbars->Customize…” While the Customize window is active, toolbar buttons can be configured by clicking the right mouse button, moved or copied with the Ctrl key.

4.2.3 MDI tabs

The MDI tabs are used for selecting the active sessions instead of numbered buttons within the main emulation window. The session windows also can be cycled by Ctrl+Tab keyboard shortcut.

4.3 VFT (Visual File Transfer)

The VFT user interface has been updated. The MDI tabs functionality was added.

5 Changes with MT9750 V7.0

5.1 Unicode Support

With the help of the Unicode mode it is possible to show symbols with various character sets in one form (e.g.: Greek and Cyrillic symbols).

Prerequisites for Unicode:

(a) Selection of terminal type DSS 9763 and of the radio button "Unicode"
in the dialog window "Terminal Configuration"
(Menu "Configuration - Terminal Settings")
(See Appendix1 User Dialogs)

(b) Host sends the Unicode marker [only possible when (a) is satisfied]

Usage of Unicode:

- Showing of symbols with various character sets in one form
- Copy/Paste operations of Unicode symbols possible
- Printing of Unicode symbols
- P-Key Editor: Paste operation helps to add Unicode symbols to the P-Key storage
- Full support of ISO compliant Unicode symbols (ISO 8859-x; x=1,2,5,7,15)
- Support of a few non ISO8859 compliant symbols (see

- Appendix 1 Unicode mode on User Dialogs
-
- Menu „Configuration – Terminal Settings“

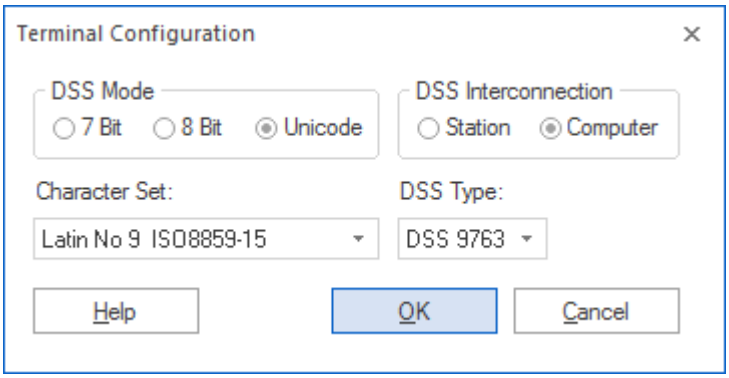

Figure 1: DSS Configuration

When DSS Type 9763 is selected and the radio button „Unicode“ is set, then the terminal can operate in the Unicode mode. Terminal Configuration changes are available after saving the session parameters for the next sessions. The parameters will be kept for the already connected session unchanged.

The Unicode mode is switched on, when the Host sends the value for the Unicode mode in the parameter block „PAR01L (field ISOA)“.

- Menu „Utilities – Programmable Keys Edit“ (PKey Editor)

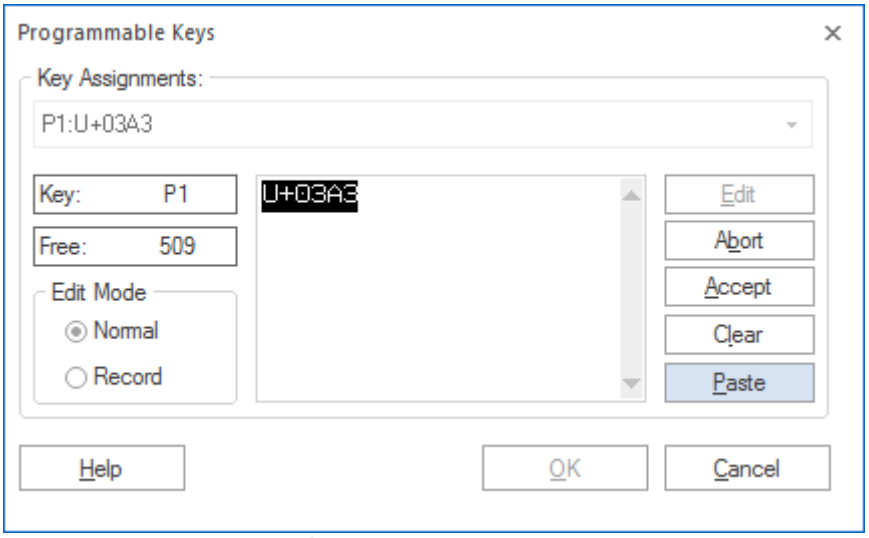

Figure 2: PKey Input

If the button „Edit“ is chosen, then the button „Paste“ will be activated.
The button „Paste“ is used to add text from the clipboard.
A distinction will be made between the Unicode mode and the non Unicode mode.
Criteria for the distinction: PAR01L.ISOA = 10646

Yes: Data from the clipboard in Unicode format.
Unicode values in the field „Description“ are described as „U+xxyy“.
Example: Unicode value 03A3 will be shown as U+03A3 (see Figure 2)

No: Data from the clipboard in normal format (ANSI/ISO).

- Appendix 2 Unicode Symbols not defined in ISO8859)

Limitations:
Hardcopy of non ISO8859 compliant symbols is not possible

6 Changes with MT9750 V6.0

6.1 Single Sign On with Kerberos authentication

With SECOS V5 (and higher) BS2000 Applications can request Kerberos Authentication instead of a password in the means of Single Sign On (SSO).

MT9750 V6.0A00 supports V1.0 of BS2000 Kerberos Authentication Protocol and at first a SSO to the TIAM Application $DIALOG.
Some other applications may follow with newer protocol versions.

SSO prerequisites:

- The Windows user login has to be authenticated by an Active Directory Domain (AD Domain) Controller which implies a Kerberos Authentication.
- The MT9750 session has to use the type DSS 9763
- SECOS V5 configuration and administration of BS2000 User Accounts has to be done correctly
- The AD Domain contains the principal name, used at the SECOS V5 configuration

SSO execution

At first connect to $DIALOG. Then type in the logon command without the password

/.jobname logon bs2user,account

If SSO is allowed for bs2user, SECOS will request a Kerberos Ticket from MT9750 which combines the current Windows user and the SECOS principal name. If the ticket serves the requirements of SECOS V5 the logon will be granted without asking the password. This feature we call BS2000 Kerberos SSO.

7 Changes with MT9750 V5.2

- Multi-user support (Saving of Personal setting)
- Support of Microsoft and Citrix terminal servers
- Functional enhancements (FTP based) in visual file transfer
- Support to start openFT up to V8.0

8 Changes with MT9750 V5.1

8.1 Communication

The emulation supports access to the host under TCP/IP and is based on the Windows socket. Neither CMX nor PCMX is used. It is not currently possible to operate several passive sessions on one port.

8.2 Deleting configured sessions

Any session files (*.mts) created can be deleted by using the menus.

8.3 Macro language V1.1

MT9750 V5.1 (and higher) also enables sessions to be created with the macro language.

8.4 Peripherals

8.4.1 Printer

The emulation supports Windows printers.
The printer configuration via menu has been improved:

- Configuration during an open session
- Acceptable page settings are portrait, landscape and rotated landscape.
- Usability improved.

Bypass printing via RFC1006:

The help of the emulation only gives one example of a connection via RFC1006/LanInet for bypass printing. It is of course also possible to configure bypass printing using the port 102.

8.4.2 KBDMAP keyboard mapping program

Version 3.0 and higher of the KBDMAP keyboard mapping program is also a 32-bit program and includes the following enhancements:

- Definition of a range of functions specific to the session
- Integration of a status line
- Possibility of providing a colour background for the functions
- Grouping of search functions under "Options"
- Improved storage of window settings

8.5 File-Transfer

8.5.1 OpenFT

If openFT is already installed and configured to operate it can be started using the "Utilities" menu.

8.5.2 VFT

The file transfer product VFT is now a part of MT9750. However, before this product can be used, the appropriate "ftp" server (BS2000 TCP-IP-AP) must be installed on the BS2000 host.
Hidden directories are now displayed on the left hand directory tree view.

8.6 Operating instructions

8.6.1 Predefine station names

If no station name (or, in the case of LanInet, no local port) is assigned for the session configuration, this is assigned within the program. Since the presetting will not be acceptable in every case, this name can be preset without having to use this name for every individual session configuration. For this, the entry
StationNameBase=<6 characters>
StationNameStVal=nn (where nn=00,01,...99)
StationNameLanInetVal=nnnnn (where nnnnn=00001,...99999)

must be entered in the "mt9750.ini" file under the [connection] section where the first two parameters are valid for RFC1006 connections and the last is valid for RFC1007/LanInet connections.

Example for RFC1006 Connections:

```
[connection]
StationNameBase=DSSNUM
StationNameStVal=00
```

8.6.2 Displaying session parameters

To obtain information on the valid parameters in the active session, select the "Show Connection Parameters" menu item in the "Utilities" menu. A window is opened displaying the current settings such as session file directory, session title, connection method, host address, port, etc.

8.6.3 Playing back macro records

If macro records are playing back, the message "playing" appears in the title line.

If menu operations are carried out during a playback, the operating system does not permit any further screen output. (The program itself is not affected by this as it runs in the background). Screen output can only resume once the menu is exited. This type of behaviour may cause the macro playback to abort. You will know if this happens, as the message "playing" in the title line also disappears prematurely.

8.6.4 Stopping screen outputs

If several sessions have been started and a message window is output indicating for example the disconnection of a session ("... WSAECONNECTRESET.."), no screen outputs are made in other session windows until the message has been acknowledged.

The same applies for selecting a menu.

The sessions themselves are still active in the background.

8.6.5 Bypass-timer

If other values than the default value are entered for the parameter "Bypass Timeout" in the menu "Configuration -> Special Parameters ", these values are accepted, but are not displayed.

8.6.6 Changing font sizes for hardcopies

If a screen line should be output in two print lines for a hardcopy, the preset character set size has been changed.

To undo this, you have to set suitable values for "Font", "Font Height" and "Font Width" again using the menu
"Configuration -> Peripherals -> Local Printer -> Print Image".
If the default size is changed, an automatic line feed is generated, taking the layout into account, if the right-hand margin is exceeded.

8.6.7 Input of passwords with AVAS and FHS-DOORS

In the AVAS product, an input is asked for in the "NET-PASSWORD" field in the "AVM$N001" mask. If the product FHS-DOORS and MT9750 V5.1 (and higher) are used, the input must not be concluded with a Send key, as otherwise blanks are transferred to the DVA.

8.7 Other functional enhancements

- Support of the ISO8859-15 character set (euro symbol)
- Compose table for diacritic character input with ISO8859-15
- Integration of additional character sets for finer size graduations
- Priority control of output in several session windows

9 Corrections

- Since Windows Vista and Windows 7 input fields to edit sessions were empty
- Automatic Font adaption not sufficient since Windows Vista
- Screen format wrong when display dimension is changed from 80 to 132 then back to 80
- Session disconnected incorrectly with DISCONNECT
- Loss of inputs following a switch of windows
- No representation of the cursor
- Emulation aborts
- Full-screen representation with the Office bar not possible
- Missing character set size for LCD screen
- "Session -> Edit" not possible on compressed NFTS
- Wrong character set after window-resizing.
- Correct appearance of BS2000 file names.
- Support of current versions of openFT
- Setting the form feed numbers
- "Clipboard Copy Paste": Conversion of lower and upper letter "Thorn"
- "Edit Session": "Remote Port Number" would not reset to default (102)
- Correction in "recording macro".
- Correct functionality of LA3 key.
- setting of Cursor blink frequency.
- Case of socket buffer overflow disable of automatically repeat of DÜ1-key .
- Correct response for Device query (No card reader, no BAM/HDLC card)
- Change of font size for English version
- Support of long printer names according to the windows conventions
- Generating distinct station-names for terminal server sessions
- Correct wrong font displaying when a “Grave accent” (`) symbol is in a string line
- Correction of occasional hanging of emulation program during start and closure on Windows 7 and higher versions.
- Session files (.mts) are now displayed correctly when archive bit is not set
- Symbol composing functionality (COMP function key) crash has been fixed
- Application crash after MTS_CONNECTION_BUSY message has been fixed
- Application crash while using bypass printing to a passive session has been fixed
- Installer issue with License Service stopping has been fixed
- Too big font size on “New Session wizard” dialog fixed.

10 Restrictions with MT9750 V9.0

In MT9750 V9.0A (and higher) the following restrictions apply compared with the function range of MT9750 V8.0C01:

- Onboard Bypass/Redirect Printing interfaces are no longer supported, please use Windows redirect printing instead.
- As DDE-based programming interfaces were removed in V8.0C, deprecated dialogue fields “toDDE” and “ShortName” have been removed from corresponding dialogues too.

11 Technical support

If this documentation does not provide answers to all of your questions, please contact Fujitsu Technology Solutions GmbH, which is responsible for your region.

Appendix 1 Unicode mode on User Dialogs

- Menu „Configuration – Terminal Settings“

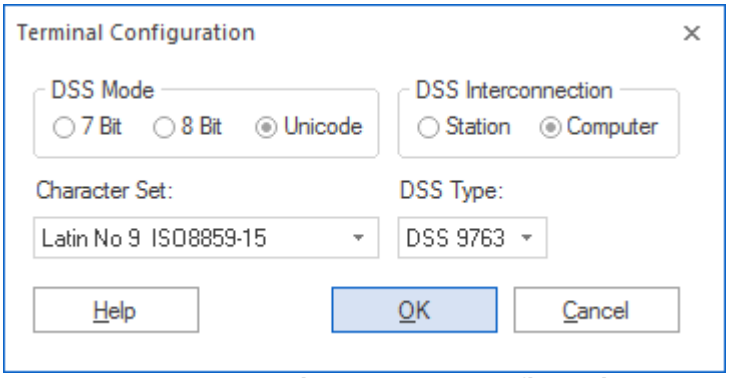

Figure 1: DSS Configuration

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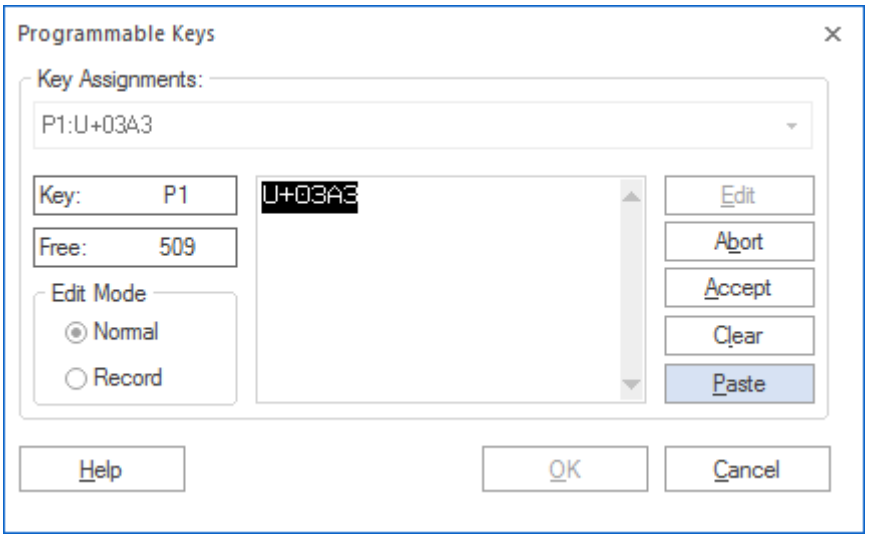

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Example: Unicode value 03A3 will be shown as U+03A3 (see Figure 2)

No: Data from the clipboard in normal format (ANSI/ISO).

Appendix 2 Unicode Symbols not defined in ISO8859

Unicode Codepoint	Meaning
u+0114	Ĕ LATIN CAPITAL LETTER E WITH BREVE
u+0115	ĕ LATIN SMALL LETTER E WITH BREVE
u+012C	Ĭ LATIN CAPITAL LETTER I WITH BREVE
u+012D	ĭ LATIN SMALL LETTER I WITH BREVE
u+014E	Ŏ LATIN CAPITAL LETTER O WITH BREVE
u+014F	ŏ LATIN SMALL LETTER O WITH BREVE
u+0166	¶ LATIN CAPITAL LETTER T WITH STROKE
u+0167	· LATIN SMALL LETTER T WITH STROKE
u+0174	Ŵ LATIN CAPITAL LETTER W WITH CIRCUMFLEX
u+0175	ŵ LATIN SMALL LETTER W WITH CIRCUMFLEX
u+0176	Ŷ LATIN CAPITAL LETTER Y WITH CIRCUMFLEX
u+0177	ŷ LATIN SMALL LETTER Y WITH CIRCUMFLEX
u+019D	[LATIN CAPITAL LETTER N WITH LEFT HOOK
u+01A0	Ơ LATIN CAPITAL LETTER O WITH HORN
u+01A1	ơ LATIN SMALL LETTER O WITH HORN
u+01AF	Ư LATIN CAPITAL LETTER U WITH HORN
u+01B0	ư LATIN SMALL LETTER U WITH HORN
u+01CD	Ǎ LATIN CAPITAL LETTER A WITH CARON
u+01CE	ǎ LATIN SMALL LETTER A WITH CARON
u+01CF	Ǐ LATIN CAPITAL LETTER I WITH CARON
u+01D0	ǐ LATIN SMALL LETTER I WITH CARON
u+01D1	Ǒ LATIN CAPITAL LETTER O WITH CARON
u+01D2	ǒ LATIN SMALL LETTER O WITH CARON
u+01D3	Ǔ LATIN CAPITAL LETTER U WITH CARON
u+01D4	ǔ LATIN SMALL LETTER U WITH CARON
u+01E6	Ǧ LATIN CAPITAL LETTER G WITH CARON
u+01E7	ǧ LATIN SMALL LETTER G WITH CARON
u+01F4	Ǵ LATIN CAPITAL LETTER G WITH ACUTE
u+01F5	ǵ LATIN SMALL LETTER G WITH ACUTE
u+0212	R LATIN CAPITAL LETTER R WITH INVERTED BREVE
u+0213	r LATIN SMALL LETTER R WITH INVERTED BREVE
u+0272	b LATIN SMALL LETTER N WITH LEFT HOOK
u+1E20	Ḡ LATIN CAPITAL LETTER G WITH MACRON
u+1E21	ḡ LATIN SMALL LETTER G WITH MACRON
u+1E24	Ḥ LATIN CAPITAL LETTER H WITH DOT BELLOW
u+1E25	ḥ LATIN SMALL LETTER H WITH DOT BELLOW
u+1E30	Ḱ LATIN CAPITAL LETTER K WITH ACUTE
u+1E31	ḱ LATIN SMALL LETTER K WITH ACUTE
u+1E44	Ṅ LATIN CAPITAL LETTER N WITH DOT ABOVE
u+1E45	ṅ LATIN SMALL LETTER N WITH DOT ABOVE

Unicode Codepoint	Meaning
u+1E60	Ṡ LATIN CAPITAL LETTER S WITH DOT ABOVE
u+1E61	ṡ LATIN SMALL LETTER S WITH DOT ABOVE
u+1E62	Ṣ LATIN CAPITAL LETTER S WITH DOT BELOW
u+1E63	ṣ LATIN SMALL LETTER S WITH DOT BELOW
u+1E84	Ẅ LATIN CAPITAL LETTER W WITH DIAERESIS
u+1E85	ẅ LATIN SMALL LETTER W WITH DIAERESIS
u+1E8E	Ẏ LATIN CAPITAL LETTER Y WITH DOT ABOVE
u+1E8F	ẏ LATIN SMALL LETTER Y WITH DOT ABOVE
u+1E90	Ẑ LATIN CAPITAL LETTER Z WITH CIRCUMFLEX
u+1E91	ẑ LATIN SMALL LETTER Z WITH CIRCUMFLEX
u+1E92	Ẓ LATIN CAPITAL LETTER Z WITH DOT BELOW
u+1E93	ẓ LATIN SMALL LETTER Z WITH DOT BELOW
u+1EA0	Ạ LATIN CAPITAL LETTER A WITH DOT BELOW
u+1EA1	ạ LATIN SMALL LETTER A WITH DOT BELOW
u+1EAA	Ẫ LATIN CAPITAL LETTER A WITH CIRCUMFLEX AND TILDE
u+1EAB	ẫ LATIN SMALL LETTER A WITH CIRCUMFLEX AND TILDE
u+1EBC	Ẽ LATIN CAPITAL LETTER E WITH TILDE
u+1EBD	ẽ LATIN SMALL LETTER E WITH TILDE
u+1EC4	Ễ LATIN CAPITAL LETTER E WITH CIRCUMFLEX AND TILDE
u+1EC5	ễ LATIN SMALL LETTER E WITH CIRCUMFLEX AND TILDE
u+1ECA	Ị LATIN CAPITAL LETTER I WITH DOT BELOW
u+1ECB	ị LATIN SMALL LETTER I WITH DOT BELOW
u+1ECC	Ọ LATIN CAPITAL LETTER O WITH DOT BELOW
u+1ECD	ọ LATIN SMALL LETTER O WITH DOT BELOW
u+1ED6	Ỗ LATIN CAPITAL LETTER O WITH CIRCUMFLEX AND TILDE
u+1ED7	ỗ LATIN SMALL LETTER O WITH CIRCUMFLEX AND TILDE
u+1EE4	Ụ LATIN CAPITAL LETTER U WITH DOT BELOW
u+1EE5	ụ LATIN SMALL LETTER U WITH DOT BELOW
u+1EF2	Ỳ LATIN CAPITAL LETTER Y WITH GRAVE
u+1EF3	ỳ LATIN SMALL LETTER Y WITH GRAVE
u+1EF8	Ỹ LATIN CAPITAL LETTER Y WITH TILDE
u+1EF9	ỹ LATIN SMALL LETTER Y WITH TILDE
u+2264	≤ LESS-THAN OR EQUAL TO