

Configuration Guide

WELL XML Browser Services

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1. Overview

Xml browser is a simple sip-phone-custom browser function based on xml. Users can use tools such as php, JavaScript, etc to dynamically generate the xml file which meets user functional requirements based on established grammar on the server side, then download to the sip phone via http/https, so as to realize a simple browser feature.

Note: It supports ASCII and UTF-8, but doesn't support Unicode.

2. Application Scenarios

With xml browser, customers can personalize their features, Such as weather forecast inquiry, stock information, date inquiry, access to address book, Google search, news browsing, music playing, terminal parameters configuration and other functions.

3. Related Terms

Xml browser supports the following Xml files in all:

- 3.1 **TextMenu:** Menu item list in text format, it is entering into the news browsing directory interface, click some Menu to enter into the corresponding link address of the news.
- 3.2 **TextScreen:** It shows text tips, that is, go to some news body interface directly, and you can browse the news content directly.
- 3.3 **InputScreen:** User inputting, it is like the register interface.
- 3.4 **Directory:** That is directory inquiries downloading.
- 3.5 **Execute:** Prompts terminals to execute certain command, such as to make the phone reboot, make a call, etc.
- 3.6 **Status:** Terminal status setting, It shows the phone's status information on idle interface status bar. It is overlapped with the Logo more or less, so it is changed to be only by pressing the Xml Browser key will the LCD display the phone status.
- 3.7 **Configuration:** Terminal parameter configuration, that is to set certain configuration of the phone through the Xml file.

4. How to configure the XML Browser on WELL phone

- 4.1 Access to the phone's web UI → Phone → DSS Key/EXT Key (Please note that only T28 and T26 support expansion module).
- 4.2 Choose any Memory Key, Line Key or Expansion Key, select the Type to be "XML Browser", fill in the available server address for the Xml Browser file downloading. In addition, you can fill some more information of the corresponding XML Browser in the "Pickup Number" column, as Picture below:

Key	Type	Mode	Line	Expansion	Pickup Number
DSS Key 1	XML Browser	Conference	Line 1	http://65.205.71.	Weather
DSS Key 2	N/A	Conference	Line 1		
DSS Key 3	N/A	Conference	Line 1		
DSS Key 4	N/A	Conference	Line 1		
DSS Key 5	N/A	Conference	Line 1		
DSS Key 6	N/A	Conference	Line 1		
DSS Key 7	N/A	Conference	Line 1		
DSS Key 8	N/A	Conference	Line 1		
DSS Key 9	N/A	Conference	Line 1		
DSS Key 10	N/A	Conference	Line 1		

Line Key >>
Programmable Key >>

Confirm **Cancel**

NOTE

Key Type
The free function key 'Types' Speed Dial, BLF, Key Event, Intercom, URL.

BLF
The button can be configured Busy Line Field function with specified account. This feature must be supported by the sip server.

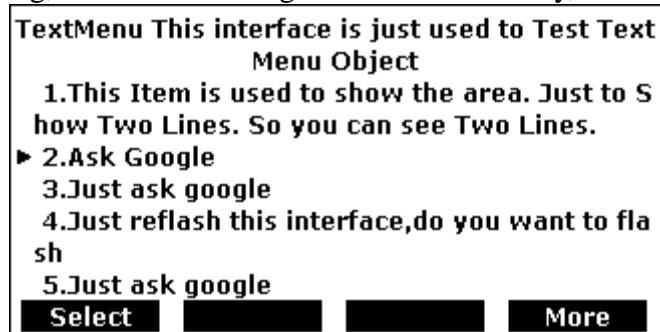
Key Event
Key events are predefined shortcuts to phone and call functions.

Intercom
Enable the 'Intercom' mode and it is useful in an office environment as a quick access to connect to the operator or the secretary.

URL
This key function allows you to send HTTP requests to a web server.

Note: You can set up the server yourselves, place some Xml Browser files on the server for downloading, or you can directly fill in some certain outer network addresses.

- 4.3 In the IDLE interface, press the DSSKey which is preset to be Xml Browser, there will be a pop-up tips of downloading, after downloading the files successfully, interfaces will show as follows:

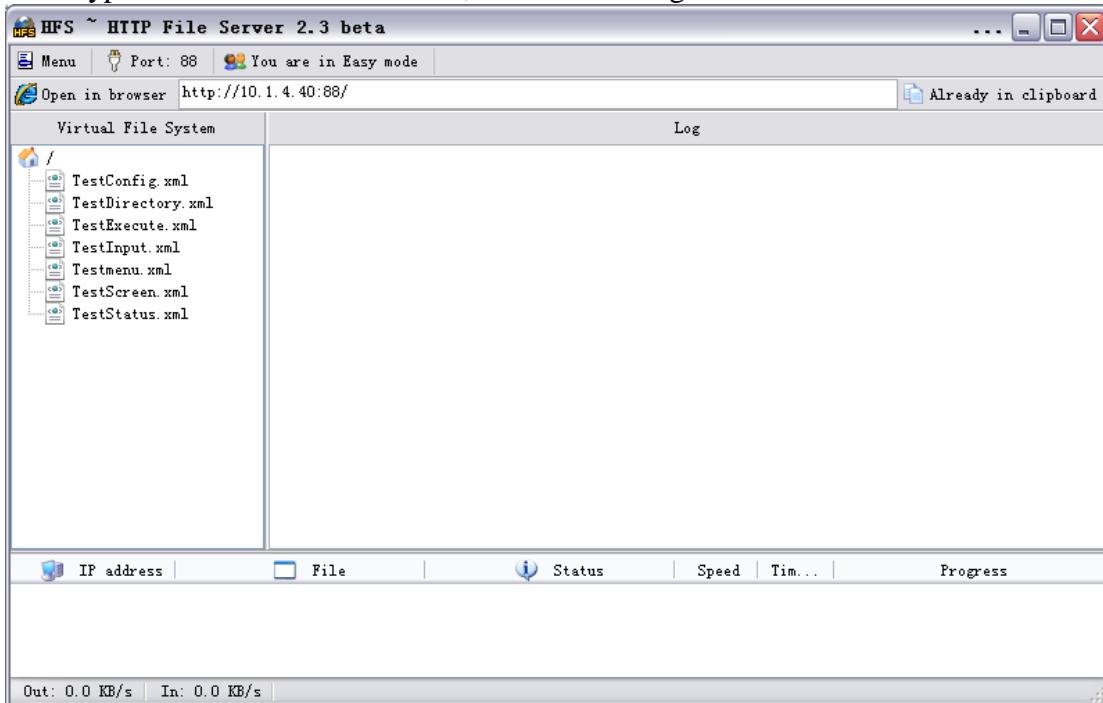


5 How to set up the server for XML Browser

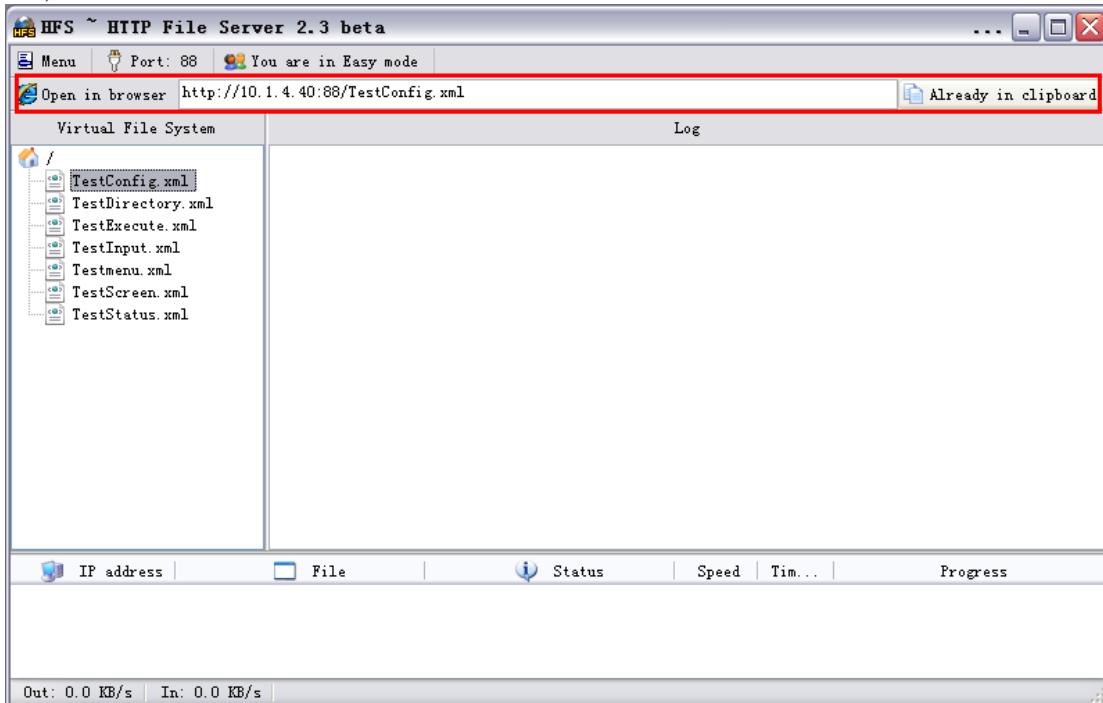
5.1 Please contact WELL to provide 7 kinds of types of XML Browser files to you. In addition, please notice that XML Browser supports only HTTP/HTTPs mode.

Note: The parameters of the XML Browser files will be described in appendix.

5.2 Configure the server, and place 7 kinds of types of Xml Browser files on the server under the specified directory. You can refer to the Auto Provision for the Http server configuration, put the 7 kinds of types of the files on the server, as the following Picture.



5.3 Click on one of the Xml Browser files, it will show the address of the file on the address bar of the server, see the content in the above red box.



5.4 Fill in the directory address in the Expansion column of the DssKey configuration on web UI, now you can download the file.

Memory Key >> ?

Key	Type	Mode	Line	Expansion	Pickup Number
DSS Key 1	XML Browser	Conference	Line 1	http://10.1.4.40:8	Config
DSS Key 2	XML Browser	Conference	Line 1	http://10.1.4.40:8	Directory
DSS Key 3	XML Browser	Conference	Line 1	http://10.1.4.40:8	Execute
DSS Key 4	XML Browser	Conference	Line 1	http://10.1.4.40:8	Input
DSS Key 5	XML Browser	Conference	Line 1	http://10.1.4.40:8	menu
DSS Key 6	XML Browser	Conference	Line 1	http://10.1.4.40:8	Screen
DSS Key 7	XML Browser	Conference	Line 1	http://10.1.4.40:8	Status
DSS Key 8	N/A	Conference	Line 1		
DSS Key 9	N/A	Conference	Line 1		
DSS Key 10	N/A	Conference	Line 1		

Line Key >>

Programmable Key >>

Confirm **Cancel**

NOTE

Key Type
The free function key 'Types' Speed Dial, BLF, Key Event, Intercom, URL.

BLF
The button can be configured Busy Line Field function with specified account. This feature must be supported by the sip server.

Key Event
Key events are predefined shortcuts to phone and call functions.

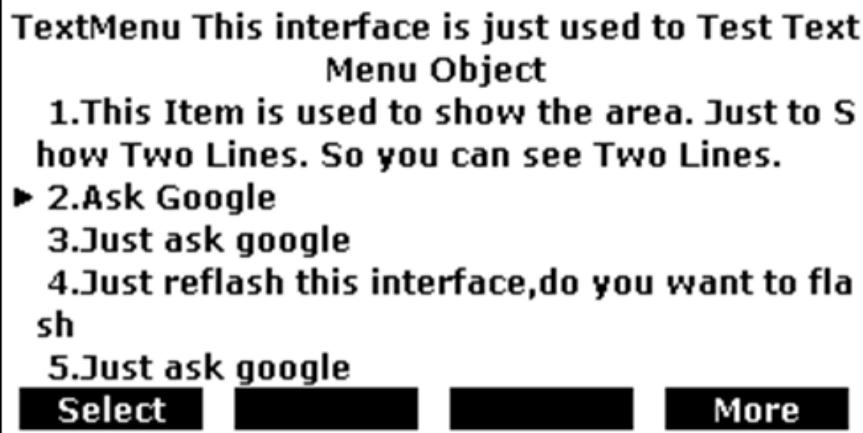
Intercom
Enable the 'Intercom' mode and it is useful in an office environment as a quick access to connect to the operator or the secretary.

URL
This key function allows you to send HTTP requests to a web server.

6. Appendix

6.1 TextMenu

6.1.1 TextMenu Object displays the menu item in the text format, the interface for reference as follows:



6.1.2 The type of the Xml format is as follows:

```
<****TextMenu  
defaultIndex = "some integer"  
style = "numbered/none/radio"  
Beep = "yes/no"  
Timeout = "some integer"  
LockIn = "yes/no"  
WrapList = "yes/no"  
>  
<Title wrap = "yes/no">Menu Title</Title>  
<MenuItem>  
    <Prompt>First Choice</Prompt>  
    <URI>http://somepage.xml</URI>  
    <Dial>Number to dial</ Dial >  
    <Selection>Selection</ Selection >  
</ MenuItem >  
<!-Additional Menu Items may be added (up to 30) - ->  
<!-Additional Softkey Items may be added (softkey phones) - ->  
<****TextMenu >
```

Note: The “****” in “****TextMenu” can be any strings, also can be null string.

6.1.3 An xml file example:

```

<?xml version="1.0" encoding="ISO-8859-1"?>
<*****IPPhoneTextMenu
    defaultIndex=" "
    style="numberd"
    Beep="no"
    cancelAction="http://10.1.4.40:80/workspace/TestInput.xml"
    wrapList="yes"
    Timeout="50"
    LockIn="no">

    <Title Wrap="yes">Phone Services </Title>

    <MenuItem>
        <Prompt>Ask Google 1</Prompt>
        <URI>http://10.1.4.40:80/workspace/TestInput.xml</URI>
        <Dial>323</Dial>
        <Selection>0&amp;menu_pos=1</Selection>
    </MenuItem>

    <MenuItem>
        <Prompt>Just ask google</Prompt>
        <URI>http://10.1.0.105/cancel.php</URI>
        <Dial>1567</Dial>
    </MenuItem>

    <SoftKey index="1">
        <Label>Select</Label>
        <URI>SoftKey:Select</URI>
    </SoftKey>

    <SoftKey index="2">
        <Label>Custom</Label>
        <URI>http://10.1.0.105/menu1.xml</URI>
    </SoftKey>
</*****IPPhoneTextMenu>

```

6.1.4 The attribute and grammar definition of all TextMenu Object parameters are shown as the table below:

Parameter	Type	Value	Functional Description	Remarks
YealinkIPPhoneTextMenu	Mandatory	none	The root element of text menu	
defaultIndex	optional	Integer	The default index to enter into the menu interface, default is 1	
style	optional	“numbered” “none” “radio”	Menu type: 1. numbered, with a digit to identify the menu order before the menu(default) 2. none, no any signs before the menu 3.radio, with a circle before the menu	
Beep	optional	“yes” “no”	Whether to give a tone when entering into the menu, default is “no”	
wrapList	optional	“yes” “no”	Whether to display for muti-lines when the content of the menu title specified by Prompt is exceeded. Choose “yes” to display muti-lines, and “no” for one line, default is “no”	
Timeout	optional	“integer” Unit:sec	If there are no operation from users after entering into the menu within the time , the phone will exit to the standby interface, default is 45	

LockIn	optional	“yes” “no”	If set to be “yes”, the phone will give no response to other operations except the soft key after entering into the menu. E.g. The phone will not go to the dial-up interface by off hook, default is “no”	If there are values between <Dial> and </Dial>, the phone will call out by off hook etc.
Title	Mandatory	string	Title content of menu interface	
Wrap	optional	“yes” “no”	Whether to display for muti-lines when the content of the menu title is exceeded. Choose “yes” to display muti-lines, and “no” for one line, default is “no”	
MenuItem	Mandatory	none	The identity of a menu item	The number for it will be from 1 to 30
Prompt	Mandatory	string	Menu Item Title, its display is controlled by “wrapList”	
URI	Mandatory	URI	The corresponding operation of the menu item	
Dial	optional	Telephone number	The phone will dial out this number by off hook when the cursor is on this menu item	Including the LineKey and the handsfree key
Selection	optional	string	If the URI of the softkey is the server’s http address, it will add“?selection=parameter preset” while sending the request. E.g.http://10.1.0.105/menu1.xml? selection=0&menu_pos=1	
SoftKey	optional	Xml object	Details as SoftKey object	

6.1.5 If the Xml file of TextMenu Object doesn’t include SoftKey, the default SoftKey will be what shows in the following table:

SoftKey Index	Name	URI
1	Exit	SoftKey:Exit
4	Select	SoftKey:Select

6.1.6 The key processing on this interface is sorted as the following table :

Key Name	Statement	Function Description
Up/Down	Up and down key	To move the focus up and down
Digitkey	The 1 to 9 number key	To move focus to the menu whose index value equals to the number key’s value pressed by users, the focus will be moved to the last menu item if the number key’s value is bigger than the total number of the menu item
Select	Softkey,URI=”SoftKey:Select”	It will call the URI command in the menu item, such as http, Dial commands etc.
Exit	Softkey, URI=“SoftKey: Exit”	Redisplay the last Xml interface, if not exist, return to Idle interface
OffHook/Line key /Handfree	Off hook/LineKey /Handsfree key	If there are contents in the menu item, it will call out the content; if no contents, and LockIn is “yes”, there will be no response, the phone will enter into the dial-up interface if LockIn is “no”
Cancel	‘X’ key on the device	Return to Idle interface
Ok	‘OK’ key on the device	If LockIn is set “no”, the function of the“OK” key will be the same as “Select”, if it is “yes”, there will be no response
DssKey except “SipTrunk”	DSSkey(include the DssKey of expansion module)	There will be no response if LockIn is set“yes”, and to execute the operation of the DssKey if it is“no”

6.2 TextScreen

6.2.1 **TextScreen** Object is used to show text notes. The interface for reference as follows:



6.2.2 The Xml file format of this type as follows:

```
<****TextScreen  
doneAction = "some URI"  
Beep = "yes/no"  
Timeout = "some integer"  
LockIn = "yes/no"  
>  
<Title wrap = "yes/no">Screen Title</ Title >  
<Text>The screen text goes here</Text>  
<!-Additional Softkey Items may be added (softkey phones) - ->  
</****TextScreen >
```

Note: The “****” in “****TextMenu” can be any strings, also can be null string.

6.2.3 An Xml file example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneTextScreen
    Beep="yes"
    defaultIndex="3"
    cancelAction=" "
    doneAction="http://10.1.0.105/menu.php"
    Timeout="50"
    LockIn="no">

    <title wrap="yes">Screen Title </Title>
    <Text>The screen text goes here</Text>
    <SoftKey index="1">
        <Label>Select</Label>
        <URI>SoftKey:Select</URI>
    </SoftKey>

    <SoftKey index="2">
        <Label>Custom</Label>
        <URI>http://10.1.0.105/menu1.xml</URI>
    </SoftKey>
</YealinkIPPhoneTextScreen>
```

6.2.4 The attribute and grammar definition of all TextScreen Object parameters are shown as the table below:

Parameter	Type	Value	Functional Description	Grammar detection
YealinkIPPhoneTextScreen	Mandatory	None	The root element of text screen	
Beep	optional	“yes” “no”	Whether to give tone when entering into this menu, fault is " no "	
doneAction	optional	URI	The URI for execution when choosing " done " softkey	

Parameter	Type	Value	Functional Description	Grammar detection
Timeout	optional	integer Unit:sec	If there are no operation from users after entering into the Text Screen interface within the time , the phone will exit to the standby interface, default is 45	
LockIn	optional	“yes” “no”	If set to be “yes”, the phone will give no response to other operations except the soft key after entering into the menu screen interface. E.g. The phone will not go to the dial-up interface by off hook, default is “no”	
Title	Mandatory	String	The title of text notes	
Wrap	optional	“yes” “no”	Whether to display for muti-lines when the content of the menu title is exceeded. Choose “yes” to display muti-lines, and “no” for one line, default is “no”	
Text	Mandatory	String	The content of text notes	Size 1~2000B
SoftKey	optional	Xml object	See details in SoftKey object	

6.2.5 If the Xml file of TextScreen Object doesn't include SoftKey, the default SoftKey will be what shows in the following table:

SoftKey index	Name	URI
1	Exit	SoftKey: Exit

6.2.6 The key processing on this interface is sorted as the following table :

Key Name	Statement	Function Description
Up/Down	Up and down key	To see the content text by pressing the up and down key
Digitkey	The 1 to 9 number key	No response
Exit	Softkey, URI= " SoftKey: Exit "	Redisplay the last Xml interface, if not exist, return to Idle interface
OffHook/Linekey /Handfree/DSSkey	Off hook/LineKey /Handsfree key	There will be no response when the LockIn is set “yes”, the phone will go to the dial-up interface or execute the operation of the DssKey when it is set “no”
Cancel	‘X’ key on the device	Return to Idle interface
Ok	‘OK’ key on the device	Call “doneAction” command

6.3 InputScreen

6.3.1 InputScreen Object is used to prompt users to input a text and send the user input content to the server. The interface for reference as follows:



6.3.2 The Xml file format of this type as follows:

```
<****InputScreen
    type = "IP/string/number/timeUS/timeInt/dateUS/dateInt"
    password = "yes/no"
    editable = "yes/no"
    Beep = "yes/no"
    Timeout = "some integer"
    LockIn = "yes/no"
    defaultIndex = "some integer 1 to 6"
    displayMode = "normal/condensed"
    inputLanguage = "English/French/German/Italian/Spanish"
    >
    <Title wrap = "yes/no">Title string</Title>
    <Prompt>Guidance for the input</Prompt>
    <URL>Target receiving the input</URL>
    <Parameter>name of the parameter add to URL</Parameter>
    <Default>Default Value (1)</Default>
    <InputField
        type = "IP/string/number/timeUS/timeInt/dateUS/dateInt/empty"
        password = "yes/no"
        editable = "yes/no"
        >
        <Prompt>Guidance for the input</Prompt>
        <URL>Target receiving the input</URL>
        <Parameter> parameter name add to URL</Parameter>
        <Default>Default Value</Default>
        <Selection>Selection</Selection>
        <!-Additional Softkey Items may be added (softkey phones) - ->
    </InputField>
    <!-Additional Input fields Items may be added - ->
    <!-Additional Softkey Items may be added (softkey phones) - ->
</****InputScreen >
```

Note: The "****" in "****TextMenu" can be any strings, also can be null string.

6.3.3 An Xml file example:

```

<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneInputScreen
    type="string"
    editable = "yes"
    Beep="no"
    cancelAction="http://10.1.0.105/cancel.php"
    Password="no"
    Timeout="30"
    LockIn="yes"
    inputLanguage="German"
    displayMode = "normal"
    defaultIndex="2" >

    <Title wrap="yes">In this interface, we will set your information on the phone!</Title>

    <Prompt>Server IP:</Prompt>
    <URL>http://10.1.0.105/menu.php</URL>
    <Parameter>proxy</Parameter>
    <Selection>1</Selection>
    <Default>10.1.0.105</Default>

    <InputField type="IP" password="no" editable="no">
        <Prompt>IP Address:</Prompt>
        <Parameter>IP</Parameter>
        <Selection>2</Selection>
        <Default>192.168.0.138</Default>
    </InputField>

    <InputField type="empty">
    </InputField>

    <InputField type="timeUS" password="no" editable="yes">
        <Prompt>Time (US) :</Prompt>
        <Parameter>time</Parameter>
        <Selection>6</Selection>

        <SoftKey index="1">
            <Label>Exit</Label>
            <URI>SoftKey:Exit</URI>
        </SoftKey>
        <SoftKey index="2">
            <Label>BackSpace</Label>
            <URI>SoftKey: BackSpace</URI>
        </SoftKey>
        <SoftKey index="4">
            <Label>Submit</Label>
            <URI>SoftKey:Submit</URI>
        </SoftKey>
    </InputField>
</YealinkIPPhoneInputScreen>

```

6.3.4 The attribute and grammar definition of all InputScreen Object parameters are shown as the table below:

Parameter	Type	Value	Functional Description	Grammar detection
YealinkIPPhoneInputScreen	Mandatory	None	The root element of Input Screen	
Type	Mandatory	“IP” “string” “number” “timeUS” “timeInt” “dateUS” “dateInt” “empty”	Data input type: 1. IP, 2.string, 3.number, digits 4. timeUS, 12 hour format, AM/PM stands for forenoon/afternoon 5. timeInt, 24 hour format 6. dateUS, format MM/DD/YYYY 7. dateInt, format D/MM/YYYY 8.empty, empty, null string, the line number is determined by “displayMode”	The default type is String(It only supports String type inputting for now)
Beep	optional	“yes” “no”	Whether to give a tone when entering into the interface, default is “no”	
Password	optional	“yes” “no”	Whether to displays what users input to be *, default is “no”	
Timeout	optional	“integer” Unit: sec	If there are no operation from users after entering into the Input Screen interface within the time , the phone will exit to the standby interface, default is 45	

Parameter	Type	Value	Functional Description	Grammar detection
LockIn	optional	“yes” “no”	If set to be “yes”, the phone will give no response to other operations except the soft key after entering into the Input Screen interface. E.g. The phone will not go to the dial-up interface by off hook, default is “no”	
inputLanguage	optional	“English” “French” “German” “Italian” “Spanish”	The language of user inputting contents, default is “English”	It only supports English inputting
displayMode	optional	“normal” “condensed”	Normal: To display the prompt and the input box to be two lines Condensed: To display the prompt and the input box to be one line Default is “Normal”	
defaultIndex	optional	Integer	The default user input box index when there are several input boxes, default is 1	
Title	Mandatory	String	The input object title	
Wrap	optional	“yes” “no”	Whether to display for multi-lines when the content of the menu title is exceeded. Choose “yes” to display multi-lines, and “no” for one line, default is “no”	
Prompt	optional	String	Prompts for user inputting	
URL	Mandatory	URL	Send the input content to the URL after users inputting	
Parameter	Mandatory	String	The parameter name following the URL, i.e. URL?Parameter setting name=user input contents	
Default	optional	String	The default input content	
InputField	optional	None	Set several input boxes	Value range 1~6
editable	optional	“yes” “no”	Whether allowing users to input something, default is “yes”. Users can not input and modify anything if it is “no”. Application scenario: only allow some users to login.	
Selection	optional	String	Add selection=preset parameter after http address when sending request if the softkey URI is the server’s http address. e.g. http://10.1.0.105/input.php?selection=1	
Softkey	optional	Xml object	It needs to add SoftKey when coming to the item, e.g. Add an input method SoftKey, see details in SoftKey Object	Value range 0~6

Note:

- a. If there is InputField option, the phone will display the input box defined by InputField, if not, there will be only one input box;
- b. The format of timeUS/timeInt/dateUS/dateInt these four types is given as the following table:

Type	Format	Example
timeUS	HH:MM:SS AM/PM HH:1-12, MM:0-59, SS:0-59	02:00:23 AM 12:59:00 PM
timeInt	HH:MM:SS HH:0-23, MM:0-59, SS:0-59	23:25:00
dateUS	MM/DD/YYYY MM:1-12, DD:1-31, YYYY:0000-9999	12/31/2009
dateInt	MM/DD/YYYY MM:1-12, DD:1-31, YYYY:0000-9999	31/01/2010

- © If the SoftKey isn’t included in the xml file of InputScreen object, and the Type for input box is “IP”, the default SoftKey will be what shows in the following table:

SoftKey index	Name	URI
1	Exit	SoftKey:Exit
2	Dot " . "	SoftKey:Dot
3	BackSpace	SoftKey:BackSpace
4	Submit	SoftKey:Submit

- ◎ If the SoftKey isn't included in the xml file of InputScreen object, and the Type for input box is "Number", the default SoftKey will be what shows in the following table:

SoftKey index	Name	URI
1	Exit	SoftKey: Exit
3	BackSpace	SoftKey: BackSpace
4	Submit	SoftKey: Submit

- ◎ If the SoftKey isn't included in the xml file of InputScreen object, and the Type for input box is "String", the default SoftKey will be what shows in the following table:

SoftKey index	Name	URI
1	Exit	SoftKey: Exit
2	2aB	SoftKey:ChangeMMode
3	BackSpace	SoftKey: BackSpace
4	Dot".."	SoftKey: Dot
5	NextSpace	SoftKey: NextSpace
6	Submit	SoftKey: Submit

- ◎ If the SoftKey isn't included in the xml file of InputScreen object, and the Type for input box is "timeUS", "timeInt", "dateUS" or "dateInt", the default SoftKey will be what shows in the following table:

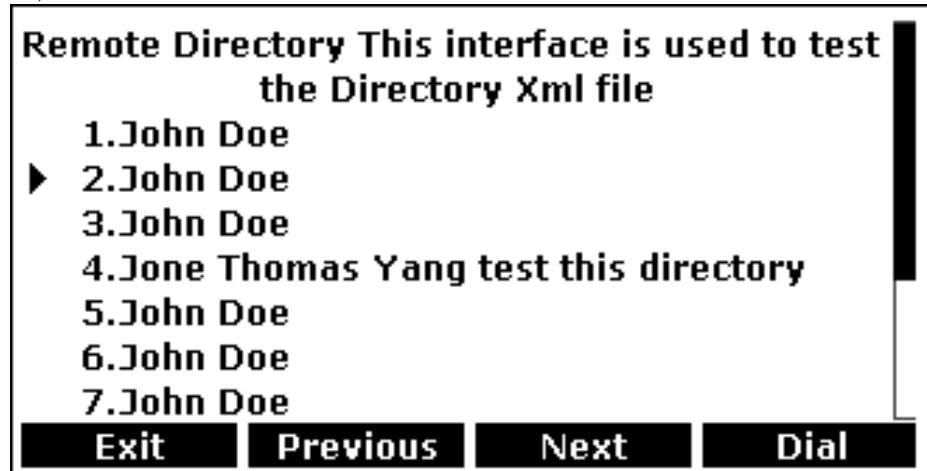
SoftKey Index	Name	URI
1	Exit	SoftKey: Exit
4	Submit	SoftKey: Submit

6.3.5 The key processing on this interface is sorted as the following table :

Key Name	Statement	Function Description
Up/Down	Up and down key	To move the focus up and down
Left/Right	Left and right key	To move the focus left and right
Digitkey	The 1 to 9 number key	It will input a character if "editable" of the focus-on input item is "yes", otherwise no response
Backspace	Softkey, URI= " SoftKey: Backspace "	Delete the character before the cursor in the focused-on item
Dot‘.’	Softkey, URI= " SoftKey: Dot "	Add " ." to the cursor's position on the focused-on item
Submit	Softkey, URI= "SoftKey:Submit"	Execute the command comprised of URI and input content
Exit	Softkey, URI= "SoftKey:Exit"	Redisplay the last Xml interface, if not exist, return to Idle interface
2aB	Softkey, URI= "SoftKey:ChangeMode"	Input method switch, i.e. switch the input method among "2aB", "ABC", "abc", "123"
NextSpace	Softkey, URI= "SoftKey:NextSpace"	Add " " to the cursor's position on the focused-on item, i.e. <space>
OffHook/Line /Handfree	Off hook/LineKey /Handsfree key	If LockIn is set "no", the phone will go to the dial-up interface, if it is "yes", there will be no response
Cancel	'X' key on the device	Return to idle interface
Ok	'OK' key on the device	If LockIn is set "no", the function of the "OK" key will be the same as "Submit", if it is "yes", there will be no response
DssKey except "SipTrunk"	DSSkey(include the DssKey of expansion module)	There will be no response if LockIn is set "yes", and to execute the operation of the DssKey if it is "no"

6.4 Directory

6.4.1 Directory Object is used to download the address book on the server, and display it on LCD, the interface for reference as follows:



6.4.2 The Xml file format of this type as follows:

```
<****Directory
  Next = "some URI"
  Previous = "some URI"
  Beep = "yes/no"
  Timeout = "some integer"
  LockIn = "yes/no"
>
<Title wrap = "yes/no">Directory Title</Title>
<MenuItem>
  <Prompt>Contact Name</Prompt>
  <URI>number</URI>
</MenuItem>
<!-Additional Menu Items may be added - ->
<!-Additional Softkey Items may be added - ->
</****Directory>
```

Note: The “****” in “****TextMenu” can be any strings, also can be null string.

6.4.3 An Xml file example:

```

<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneDirectory
    defaultIndex="1"
    style="numberd"
    Next="http://myserver.com/more.php"
    Previous="http://myserver.com/back.xml"
    Beep="yes"
    cancelAction="http://10.1.0.105/cancel.php"
    Timeout="45"
    LockIn="no">

    <Title wrap="yes">Remote Directory</Title>

    <MenuItem>
        <Prompt>John Doed 107</Prompt>
        <URI> 10.1.4.189</URI>
    </MenuItem>

    <MenuItem>
        <Prompt>John Doef</Prompt>
        <URI>4326</URI>
    </MenuItem>

    <MenuItem>
        <Prompt>John Doe</Prompt>
        <URI>9982691234</URI>
    </MenuItem>

    <SoftKey index="1">
        <Label>exit</Label>
        <URI>SoftKey:Exit</URI>
    </SoftKey>

    <SoftKey index="2">
        <Label>Dial</Label>
        <URI>SoftKey:Dial</URI>
    </SoftKey>
</YealinkIPPhoneDirectory>

```

6.4.4 The attribute and grammar definition of all Directory object parameters are shown as the table below:

Parameter	Type	Value	Function Description	Grammar detection
YealinkIPPhoneDirectory	Mandatory	None	The root element of the Directory object	
Next	optional	URI	The corresponding URI of “Next” softkey	
Previous	optional	URI	The corresponding URI of “Previous” softkey	
Beep	optional	“yes” “no”	Whether to give a tone when entering into the address book, default is “no”	
Timeout	optional	“integer” Unit:sec	If there are no operation from users after entering into the address book within the time , the phone will exit to the standby interface, default is 45	
LockIn	optional	“yes” “no”	If set to be “yes”, the phone will give no response to other operations except the soft key after entering into the address book. E.g. The phone will not go to the dial-up interface by off hook, default is “no”	
Title	Mandatory	String	Title content of address book	
Wrap	optional	“yes” “no”	Whether to display for muti-lines when the content of the address book title is exceeded. Choose “yes” to display muti-lines, and “no” for one line, default is “yes”	
MenuItem	Mandatory	None	Address item	Value range 1~15
Prompt	Mandatory	String	Title of address item	

Parameter	Type	Value	Function Description	Grammar detection
URI	Mandatory	URI	Corresponding operation of address item, e.g. corresponding telephone number etc.	
Softkey	optional	Xml object	See details in SoftKey object	

Note: If the Xml file of Directory Object doesn't include SoftKey, the default SoftKey will be what shows in the following table:

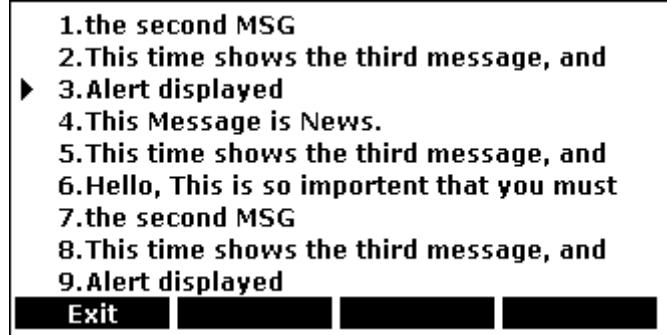
SoftKey index	Name	URI
1	Exit	SoftKey: Exit
2	Previous	The URI specified by "Previous" of Directory object, "SoftKey: Previous"
3	Next	The URI specified by "Next" of Directory object, "SoftKey: Next"
4	Dial	SoftKey: Dial

6.4.5 The key processing on this interface is sorted as the following table :

Key Name	Statement	Function Description
Up/Down	Up and down key	To move the focus up and down
Digitkey	The 1 to 9 number key	To move focus to the menu whose index value equals to the number key's value pressed by users, the focus will be moved to the last menu item if the number key's value is bigger than the total number of the menu item
Dial	Softkey, URI="SoftKey: Dial"	Call out the number in the focused-on address
Previous	Softkey, URI="SoftKey: Previous"	Call the URI command in "Previous"(such as "http" etc)
Next	Softkey, URI="SoftKey: Next"	Call the URI command in "Next"(such as "http" etc)
Exit	Softkey, URI="SoftKey: Exit"	Redisplay previous displayed xml interface
OffHook/Linekey /Handfree	Off hook/LineKey /Handsfree key	Call out the number in the focused-on address
Cancel	'X' key on the device	Return to Idle interface
Ok	'OK' key on the device	If LockIn is set "no", the function of the "OK" key will be the same as "Dial", if it is "yes", there will be no response
DssKey except "SipTrunk"	DSSkey(include the DssKey of expansion module)	There will be no response if LockIn is set"yes", and to execute the operation of the DssKey if it is"no"

6.5 Status

6.5.1 The status information which the Status Object displays on idle interface to prompt the users. The interface for reference is as follows:



6.5.2 The Xml file format of this type is as follows:

```
<****Status Beep = “yes/no”>
  <Session>Session ID</Session>
  <Message>
    Index = “index”
    Type = “alert”
    Timeout = “timeout”
  >Message</Message>
  <!-Additional Message Items may be added - ->
</****Status>
```

Note: The “****” in “****TextMenu” can be any strings, also can be null string.

6.5.3 An Xml file example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneStatus Beep="yes" style="numberd">

  <Session>400</Session>
  <Message index="1" Timeout="3">1.the second MSG</Message>
  <Message index="2" Timeout="3">2.This time shows the third message</Message>
  <Message index="3" Timeout="3">3.Alert displayed</Message>
  <Message index="4" Timeout="3">This Message is News.</Message>
  <Message index="5" Timeout="3">This time shows the third message</Message>
  <Message index="6" type="alert" Timeout="0">Alert displayed</Message>
</YealinkIPPhoneStatus>
```

6.5.4 The attribute and grammar definition of all TextStatus Object parameters are shown as the table below:

Parameter	Type	Value	Function Description	Grammar detection
YealinkIPPhoneStatus	Mandatory	None	The root element of TextStatus Object	
Beep	optional	“yes” “no”	Whether to give a tone when displaying the status information, default is “no”	
Session	optional	String	Session ID, it is used to mark different TextStatus Objects	Minimum 0
Message	Mandatory	None	Displayed message	Value range 0~10
Index	Mandatory	Integer	The status information index in the Session, default is 1	Value range 1~10
Type	optional	“alert”	It only supports “alert”Type for now, if no Type specified, the stats information will be shown all the time until there are some key operations or exit from the interface with receiving a message ,the message will be displayed in turn, default is “alert”	
Timeout	optional	“integer” Unit:sec	The time for status information showing, it will no longer display this message after the time, default is 3	
Softkey	optional	Xml object	See details in SoftKey object	

6.5.5 The key processing on this interface is sorted as the following table :

Key Name	Statement	Function Description
Up/Down	Up and down key	To see the content text by pressing the up and down key
Digitkey	The 1 to 9 number key	To move focus to the status item whose index value equals to the number key's value pressed by users, the focus will be moved to the last status item if the number key's value is bigger than the total number of the status item
Exit	Softkey, URI= " SoftKey: Exit "	Redisplay the last Xml interface, if not exist, return to Idle interface
OffHook/Linekey /Handfree/DSSkey	Off hook/LineKey /Handsfree key	There will be no response if LockIn is set“yes”, and to execute the operation of the DssKey if it is“no”
Cancel	‘X’ key on the device	Return to Idle interface
Ok	‘OK’ key on the device	Call doneAction command

6.6 Execute

6.6.1 Execute Object is used to notify the phone to execute a series of commands, the phone will execute each specified command orderly, there are no prompt interface during the execute process.

6.6.2 The Xml file format of this type as follows:

```
<****Execute Beep = "yes/no">
<ExecuteItem URI = "URI"/>
<!-Additional Execute Items may be added - ->
</****Execute>
```

Note: The “****” in “****TextMenu” can be any strings, also can be null string.

6.6.3 An Xml file example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<YealinkIPPhoneExecute Beep="yes">

<ExecuteItem URI="Led:EXP38-1-1-GREEN=on"/>
<ExecuteItem URI="Led:EXP38-1-2-RED=on"/>
<ExecuteItem URI="Led:EXP38-1-3-GREEN=on"/>
<ExecuteItem URI="Led:EXP38-1-4-RED=on"/>

<ExecuteItem URI="Led:MEMO1_GREEN=on"/>
<ExecuteItem URI="Led:MEMO2_GREEN=on"/>
<ExecuteItem URI="Led:MEMO3_RED=on"/>
<ExecuteItem URI="Led:MEMO4_RED=on"/>

<ExecuteItem URI="Led:LINE3=on"/>
<ExecuteItem URI="Led:LINE4=on"/>

<ExecuteItem URI="Led:SMS=off"/>

<ExecuteItem URI="http://10.1.4.40:80/workspace/TestInput.xml"/>
<ExecuteItem URI="http://10.1.4.40:80/workspace/TestStatus.xml"/>
<ExecuteItem URI="Dial:80" interruptCall="yes"/>

</YealinkIPPhoneExecute>
```

6.6.4 The attribute and grammar definition of all Execute Object parameters are shown as the table below:

Parameter	Type	Value	Function Description	Grammar detection
YealinkIPPhoneExecute	Mandatory	None	The root element of Execute Object	
Beep	optional	“yes”“no”	Whether to give a tone when beginning to execute commands, default is “no”	
ExecuteItem	Mandatory	None	Command item	Value range 0~30
URI	optional	URI	Corresponding operation of command item, such as call some user, download data from the server according to the URL etc.	

6.6.5 Common used command:

Name	URI Value	Function Description
Any Supported uri	http(s)://myserver.com/myscript.pl	Call to display the URL
	Dial: XXXXX	Call out the number
	Led: XXXX=on/off/slowflash/fastflash	To control the indicator according to the commands
	Key: XXXX	Equals to press XXXX operation
	Wav.Play:[tftp http://[username[:password]@]<host>[:port]/[<Path>]/<file> Wav.Stop:	Play the wav file or close the play

Phone Reset	Command: Reset	Reset to factory
Phone Fast Reboot	Command: Reboot	Phone reboot
Phone Lock	Command: Lock	Lock the phone ,Talk Only
Phone Unlock	Command: Unlock	Unlock the phone
Clear	Command: ClearCallersList	Clear local call record list
	Command: ClearDirectory	Clear local contact list
	Command: ClearRedialList	Clear redial list(call out record)
Do nothing	None	None

6.6.6 Specification of “XXXX” in “Led: XXXX=on/off/slowflash/fastflash”:

Setting method	Indicator	Example
EXP38-%d-%d2-%s	%d: The “%d”th expansion module , value 1~6 %d2: The “%d2”th key of the expansion module, value 1~38 %s: The light color, value : " RED " , " GREEN "	“Led: EXP38-2-3-RED=on”: Lighten the indicator of the third key of the second expansion module to be red
LINE%d	%d: It represents the serial number of corresponding indicator, value 1~6	“Led:LINE3=on”: Lighten the corresponding indicator of Line3
MEMO%d_%s	%d: It represents the memory key’s serial number, value 1~10 %s: The light color, value : " RED " , " GREEN "	“Led: MEMO5_GREEN =on”:Lighten the indicator of Memory5 to be green
SMS	Messageindicator	
HEADSET	Headset switch indicator	
BACKLIGHT	Backlight indicator	
HANDFREE	Hands-free indicator	
POWER	Power indicator	

6.6.7 Specification of “XXXX” in “Key: XXXX”:

Setting method	Key	Example
EXP38-%d-%d	%d: The “%d”th expansion module , value 1~6 %d2: The “%d2”th key of the expansion module, value 1~38	“Key: EXP38-2-3”: It means the third key of the second expansion module
OFF_HOOK	Off hook	
ON_HOOK	On hook	
OK	Ok key	
CANCEL	X key	
UP	Up key	
DOWN	Down key	
LEFT	Left key	
RIGHT	Right key	
INCREASE	Increase volume	
DECREASE	Decrease volume	
REDIAL	Redial	
HOLD	Hold the line	
MUTE	Mute the call (listen only)	
CONFERENCE	conference	
TRANSFER	Transfer	
SMS	Message key	
FWD	Forward key	
PHONEBOOK	Remote phone book key	
SWITCH	Switch key	
HEADSET	Headset switch key	
HANDFREE	Handfree or speaker key	
LINE%d	Line key, value 1~6	
HOTKEY%d	Hot key, value 1~4	
MEMORY%d	Memory key, value 1~10	
KEY_%d	Number key, value 0~9	
STAR	“*” key	
POUND	“#” key	
GROUP_LISTEN	Group listening key	
HOLD_PUBLIC	Public Hold for BLA	

HOLD_PRIVATE	Private Hold for BLA	
--------------	----------------------	--

6.7 Configuration

6.7.1 Configuration Object is used to modify the phone's configurations. There is no prompt interface for this xml object.

6.7.2 The Xml file format of this type as follows:

```
<****Configuration  
Beep = "yes/no"  
setType = "config/boot"  
>  
<ConfigurationItem>  
    <Path>path</Path>  
    <Session>session</Session>  
<Parameter>parameter</Parameter>  
<Value>value</Value>  
</ConfigurationItem>  
<!-Additional Configuration Items may be added - ->  
</****Configuration>  
  
<?xml version="1.0" encoding="ISO-8859-1"?>
```

6.7.3 An Xml file example:

```
<?xml version="1.0" encoding="ISO-8859-1"?>  
<YealinkIPPhoneConfiguration  
    Beep="yes"  
    setType="config">  
  
    <ConfigurationItem setType="oneBoot">  
        <Path>/yealink/config/Setting/Setting.cfg</Path>  
        <Session>PhoneSetting</Session>  
        <Parameter>ProductName</Parameter>  
        <Value>abcd</Value>  
    </ConfigurationItem>  
  
    <ConfigurationItem setType="oneBoot">  
        <Path>/yealink/config/Setting/Setting.cfg</Path>  
        <Session>PhoneSetting</Session>  
        <Parameter>Lock</Parameter>  
        <Value>0</Value>  
    </ConfigurationItem>  
  
    <ConfigurationItem setType="oneBoot">  
        <Path>/yealink/config/Setting/Setting.cfg</Path>  
        <Session>PhoneSetting</Session>  
        <Parameter>Contrast</Parameter>  
        <Value>6</Value>  
    </ConfigurationItem>  
  
</YealinkIPPhoneConfiguration>
```

6.7.4 The attribute and grammar definition of all Configuration Object parameters are shown as the table below:

Parameter	Type	Value	Functional Description	Grammar Detection
YealinkIPPhoneConfiguration	Mandatory	None	The root element of Configuration Object	
Beep	optional	"yes" "no"	Whether to give a tone when doing the configuration, default is "no"	Value: " yes " or " no "

Parameter	Type	Value	Functional Description	Grammar Detection
setType	optional	config boot	config: Configuration changes will be taken into effect without reboot. boot: Configuration changes will be taken into effect with reboot.	
ConfigurationItem	Mandatory	None	Setting item	Value 0~1000
Path	Mandatory	String	The path where parameter storage	
Session	Mandatory	String	Section name for parameter storage	
Parameter	Mandatory	String	Parameter name	
Value	Mandatory	String	Value	

Note: There are no download interface for the above two types, they only execute the commands in the Xml files.