



System 1200 Newsletter – No.6

THE BASICS OF SYSTEM 1200 MMI

The Man-Machine Interface (MMI) of System1200 was developed to achieve three main goals. Firstly the MMI must be **simple and intuitive to use**, secondly, a **minimal number of key strokes to perform required operations** and finally, the **individual GPS1200 and TPS1200 MMI must be identical as far as possible**.

Achieving these three goals would then help in reaching the ultimate goal of System1200 - to improve productivity and reduce the time to complete a survey.

In order to help achieve these goals, the System1200 MMI was developed with input and feedback from a variety of sources. **Existing System500 and TPS1100 users** were asked what they liked and what could be improved. **Competitor's products** were looked at in depth to see what they do well and what they do not so well. **System500 and TPS1110 "Wish-Lists"** were studied to see if any wishes for the existing generation of instruments could be built into System1200. **Leica Selling Units and Dealers** were asked what feedback do they get from existing Leica users and non-Leica users and what makes the existing Leica products sell?

The end result of all this input is the System1200 MMI which is used on the GPS1200 and TPS1200 instruments today. The feedback received from customers about the System 1200MMI already using System1200 instruments is very good – it has met the original demanding goals.

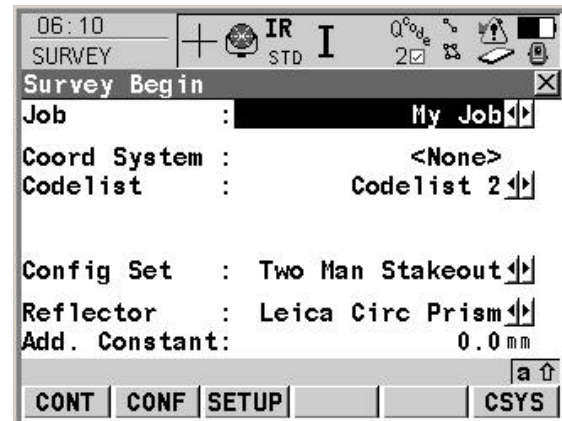
However, even "advanced" System1200 users do not know all the additional "tips and tricks" of the System1200 MMI or why certain aspects of the MMI are designed like it is.

This newsletter explains some of the basics of the System 1200 MMI – the functionality of the "application begin" panel is first described and then some features of the **Graphical User Interface (GUI)** are explained in detail.

Even if you are an advanced user, or think you have nothing more to learn with System 1200 then read on – you may be surprised...

THE APPLICATION BEGIN PANEL

The first panel which is seen after starting any application program (Survey, Stakeout, Reference Line, Setup etc) on a System1200 instrument is the **Begin** panel.



JOBS AND CONFIGURATION SETS

This panel is important because it allows you to choose the two things which need to be selected before any application is started - the **job** into which you wish to store data and the **configuration set** which defines the way the instrument will work.

Choosing the job can be thought of as answering the question "**where do I want my data to be stored?**" and choosing the configuration set can be thought of as answering the question "**how do I want my instrument to behave?**"

The other information shown in the begin panel displays information related to the selected job and configuration set.

The **Coord System** and **Codelist** prompts show **job** related information – the **Coord System** displays which coordinate system is currently attached to the job and the **Codelist** prompt allows a codelist to be selected or displays the codelist from which the codes were

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previously copied. A different coordinate system or codelist can be selected if required. More on jobs, coordinate systems and code-lists in a future newsletter.

The **Reflector** and **Add. Constant** prompts (only on TPS instruments – **Antenna** is shown on GPS) show **configuration set** related information – which reflector or antenna is currently configured to be used in the configuration set. A different reflector (or antenna) can be selected if required. More on configuration sets in the next newsletter.

BEGIN PANEL FUNCTION KEYS

Also consistent in all begin panels are the function key options. **CONT(F1)** selects the displayed job and configuration set and continues into the application. **CONF(F2)** allows certain settings which are specific to the application program being used to be configured (more on this in the next newsletter). For TPS instruments only, **SETUP(F3)** allows the instrument to be “setup” (oriented etc) and **CSYS(F6)** allows a different coordinate system to be selected if necessary.

This is the same for all application programs (with some specific exceptions) - all application programs have a “begin” panel with the same prompts and function key options - they are all the same. Learn the functionality of one begin panel and you have learnt the functionality for all begin panels.

THE ACTIVE JOB AND CONFIGURATION SET

So which job and configuration set is selected to be initially displayed when you enter a begin panel?

System1200 tries to help the user and always displays the currently **active job** and **active configuration set** –these are simply the job and configuration set which was last used on the instrument.

If you do select a different job or configuration set in an application begin panel, then this job and/or configuration set then become the **active** job and configuration set.

FEATURES OF THE GUI

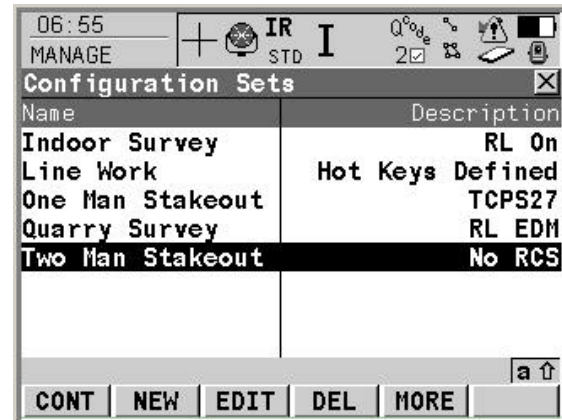
The graphical user interface (GUI) provide the “building blocks” of the System1200 MMI – some of the features of specific parts of the GUI may not be so well known and are explained below.

LIST BOXES

Consistent throughout the MMI of System1200 is the use of list boxes.

In the begin panel previously described, the **Job** and **Configuration Set** prompts are “closed” list boxes which can be opened to reveal the “open” list box. The closed list box can be opened either by touching the box or if the focus is on the list box, by pressing **ENTER** or any alpha or numeric character. Note, the options within the list box can simply be toggled through (list box is not opened) by pressing the left or right arrow keys.

Once a list box is open, the functionality within a list box is very similar for all list boxes – again, learn one list box and you have learnt them all.



The focus is always initially placed on the “object” which was visible when the list box was closed and it is now possible to scroll up and down to move the focus onto a different object. The objects within the list are normally sorted “ascending ASCII alphabetically” – additionally,

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points, lines and areas can be sorted in other ways.

LIST BOX FUNCTION KEYS

The function keys within a list box are always consistent and are obvious in their uses.

CONT(F1) selects the highlighted object and returns to from where the list box was opened. Note, that pressing **ENTER** within a list box is the same as pressing **F1**.

NEW(F2) allows a new object to be created (the object being created of course depends on the list box currently open). Note, when creating some objects, the “properties” of the highlighted object are used as the default properties of the new object being created – for example, when creating a new configuration set, the properties of the currently highlighted configuration set are also initially the properties of the new configuration set being created.

EDIT(F3) allows the properties of the highlighted object to be edited.

DEL(F4) allows the highlighted object to be deleted.

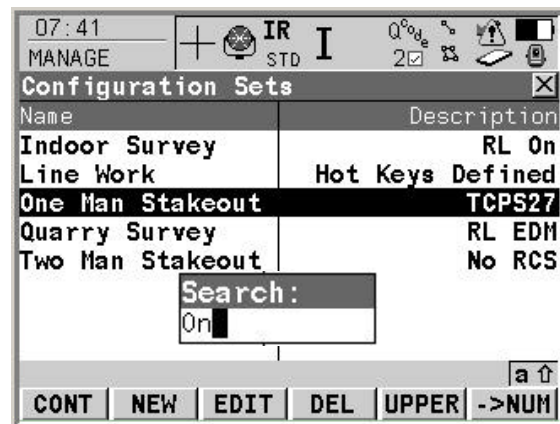
MORE(F5) allows more information in the right and column to be displayed.

If the list of object is long then there are different ways to quickly navigate up and down the list. **HOME(shift F2)** moves the focus to the top of the list and **END(shift F3)** moves the focus to the bottom of the list. Note also that pressing shift and then the up (or down) arrow moves up (or down) the list by a page.

SEARCHING FOR OBJECTS

An easy way to quickly find a specific object in the list is to use the search functionality.

Simply type any character and the **Search** field will appear. As you type and enter additional characters the search is updated with the focus moving to the “closest fitting” object. Pressing **ESC** or the arrow up/down button removes the search field.



Even if the search field is visible, the function keys can still be used. A nice feature is that if you press **NEW(F2)** then the characters shown in the search field are suggested as the name of the new object.

Again, this search functionality is common to all list boxes.

INPUT FIELDS

An input field allows data to be entered (a job name, coordinates of a point etc) and seems almost too straightforward in its use to be worth mentioning. However, there are a couple of features of which not everyone maybe aware...

Input fields are either numeric or alphanumeric – alpha characters cannot be entered into a numeric only input field. Additionally, some numeric input fields allow only integer values to be entered – in these fields, decimals cannot be entered. For alphanumeric input fields, it is possible to enter both upper and lower case characters.

When using the RX1210 or 1220 controller, simply press the **CAPS** button to toggle between the two modes – the “caps” icon in the bottom right hand corner of the screen displays the mode currently being used.

When using the TPS instrument without an RX controller, then the user can easily choose if the first character to be entered into an input field should be an alpha or numeric character.

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Pressing any numeric key means that a numeric character will be entered. However, by first pressing the **ENTER**, **CE**, or **left** or **right arrow** key accesses the input field (but does not enter any character) and changes the input mode to alphanumeric – pressing a numeric character will now enter the corresponding alpha character. Once the input field is accessed then **UPPER/LOWER(F5)** and **NUM/ANUM(F6)** allows upper and lower case and alpha/numeric characters to be entered.

Note, it is also possible to use these 4 methods to access the input field on the RX controller. Also, with the touch screen of the RX, the input field can simply be touched to access the input field.

However, these different methods of accessing the input are still important when **editing** the **existing** data within an input field (for example, when editing an already existing job and changing the name).

Pressing the **left** (or **right**) **arrow** to access the input field leaves the text currently being shown in the input field and places the cursor to the left (or right) of the existing text. Pressing **ENTER** is the same as pressing the right arrow. Pressing **CE** deletes the currently displayed text. And of course, typing any alpha or numeric character deletes the currently displayed text and enters that character.

Note, some input fields are **mandatory input fields** and it is not possible to leave a panel without entering data into these fields – an appropriate message box will appear.

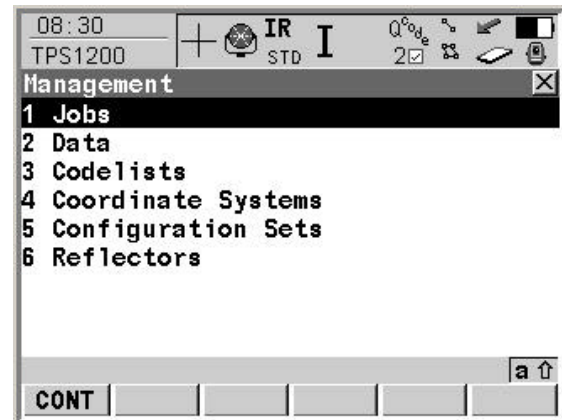
For all input fields, pressing **ESC** will exit the input field and undo any changes.

MENU OPTIONS

Menu options within a menu panel can be selected in a variety of different ways. Either move the focus to the required option and press **ENTER** or **CONT(F1)**. But a quicker way may be to type the menu option number directly.

Another nice feature is that the last used menu option within each menu panel is individually

remembered (until the instrument is turned off) – this is convenient if you always tend to use the same menu options.



PANEL NAMES

For each panel within the System1200 MMI, the combination of the **Caption** and the **Title Line** is always unique to each panel and can be used to uniquely describe the panel. So in the example below, the “name” of the panel is the **SURVEY Survey Begin** panel.



This is very useful in support – when contacting support and you need to say which panel is being used, then simply quote the caption and title line.

REMEMBER

When starting any application, the application begin panel allows the job and configuration set to be selected – simply decide, where do I want to store the data (choose the job) and how do I want the instrument to work (choose the configuration set).

The functionality of list boxes, list box search fields and list box function keys is consistent throughout the System1200 MMI – learn how to use one list box and you have learnt them all.

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