Appendix V: searchString

Many of the Land Index web services such as retrievals by property address and proprietor names take a common searchString parameter.

This appendix covers the internal format of the common searchString parameter for the Land Index search services. This format is defined and documented by VOTS system specifications.

The format of the string depends on the type of search/index retrieval being undertaken. These are defined separately in the remainder of this appendix.

Volume/Folio Search

The Volume/Folio Parser handles text (up to 120 bytes) conforming to the general form:

$$\begin{bmatrix} ; \\ : \\ V \end{bmatrix} \dots \quad volume \quad \left\{ \begin{Bmatrix} , \\ . \\ / \\ \Delta \\ F \\ \& \end{Bmatrix} \dots \begin{Bmatrix} folio\ [\ suffix\ ] \\ folio - folio \end{Bmatrix} \right\} \dots$$

$$\left[\begin{Bmatrix} ; \\ : \\ V \end{Bmatrix} \dots \quad volume \quad \left\{ \begin{Bmatrix} , \\ . \\ / \\ \Delta \\ F \\ \& \end{Bmatrix} \dots \begin{Bmatrix} folio\ [\ suffix\ ] \\ folio - folio \end{Bmatrix} \right\} \dots \right]$$
$$\dots$$

Δ indicates a required space (when no other option is selected). Any number of additional spaces may appear between tokens in the above general form. volume is a string of contiguous digits to a maximum length of 5. folio is a string of contiguous digits to a maximum length of 11. For any folio larger than 999, the parser computes the actual folio as folio mod 1000. If there are less than 3 digits, the string will be left-filled with zeroes to a total length of 3.

- The Parser checks every volume/folio couplet unpacked and signals those which are not valid combinations according to VOLD (database table). Since VOLD does not attempt to validate suffix letters, the Parser assumes that only A, B, C, K and L are valid suffix letters.

  [K and L suffixes correspond to the URDS document types Crown Lease and Mineral Lease (URDS codes K and L)]

- The Parser treats leases (suffix letters K and L) as valid provided the volume is valid according to VOLD and the folio is in the range zero to 999.

Other notes:

- The Parser does not accept suffix characters in a range specification.
- The Parser always expands an abbreviated list or a range of folio numbers into an explicit series in which the applicable volume is coupled with each successive folio in the abbreviated list or range.

- The parser discontinues parsing at the first encountered syntax error and provides a user-oriented description of the particular problem with an indication as to where the error in the text was encountered. Note there may be some differences between the valid volume - folio range tables used by LANDATA and those defined in the Titles (Volume/Folios) section however these differences will not affect the operation of the Parser.

Address Search

The Address Parser handles texts (up to 240 bytes) that conform to the general form:

$$[\ \textbf{addrprefix}\ ]\ [\ propertyname\ ]\ [\ \textbf{unittype}\ [\ unit\ ]\ ]\ [\ \textbf{floortype}\ [\ floor\ ]\ ]$$

$$\left\{ \begin{array}{c} \left[\begin{array}{c} strnum \\ strnumrange \end{array} \right] strname\ [\ \textbf{strtype}\ ]\ [\ \textbf{strsuffix}\ ] \left\{ \begin{array}{c} suburb\ [\ postcd\ ] \\ municipality \end{array} \right\} \\ suburb\ [\ postcd\ ] \end{array} \right\}$$

OR

$$\left\{ \begin{array}{c} \left[\left[\begin{array}{c} \left[\begin{array}{c} \text{stn} - \\ \text{LOT} \end{array} \right]\ \text{stn}\quad [\,,\,] \\ \left\{ \begin{array}{c} \text{CNR} \\ \text{CORNER} \end{array} \right\} \text{strnam}\ [\ \text{strtyp}\ ][\ \text{strsfx}\ ]\,\& \end{array} \right]\ \text{strnam}\ [\ \text{strtyp}\ ][\ \text{strsfx}\ ][\,,\,] \right] \\ sbbnam\quad [\quad postcd\quad] \end{array} \right\}$$

- **addrprefix** accepts any of the words such as 'Above', 'Rear', 'Corner', 'Upstairs', etc.

- **propertyname** is one or more words enclosed in double quotation marks.

- **unittype** handles any of the following words such as 'Apartment', 'Block', 'Carpark', "Flat' etc.

- **unit** consists of up to 4 characters with the general form of a reference number; see refnum, below.

- **floortype** accepts any words such as 'Floor', 'Basement', 'Mezzanine',etc.

- **floor** consists of up to 4 characters with the general form of a reference number; see refnum, below.

- **strnum** consists of up to 6 characters with the general form of a reference number; see refnum, below.

- **strnumrange** must conform to the general form — strnum – strnum

- The hyphen may be hard up against each strnum or may be surrounded by one or more spaces. strname is one or more words joined by spaces, hyphens or slashes.

- **strtype** is any of the standard 'street types' in use, and can be either the common abbreviation for the type or the type in full.

- **strsuffix** represents any of the words like 'East', 'North', 'Extension' used in conjunction with a street name.

- **suburb** is one or more words separated by spaces.

- **postcd** is a 4-digit number.

- **municipality** is one or more words separated by spaces.

Other notes:

- refnum is a generic reference number consisting of one or more contiguous characters having the general form:

$$\left\{ \begin{array}{l} prefix\ [\ number\ [postfix]\ ] \\ \quad number\ [postfix] \end{array} \right\}$$

where prefix is a string of contiguous letters, number is a string of contiguous digits, and postfix is a letter optionally followed by digits and/or letters. Leading zeroes in a number will be dropped; a number comprising only zero/es is invalid. This also applies to a number within a postfix: for example, a reference number of 3A02 will be taken as 3A2, and 3A0 would be an invalid reference number.

- Where a prefix-only refnum consists of one of the words {ONE, TWO, THREE, FOUR, FIVE, SIX, SEVEN, EIGHT, NINE, TEN}

- the refnum will be automatically translated into the respective numbers {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}.

- The Parser checks every address unpacked and signals those which are not valid combinations according to STRD (for street name and type), SBBD (for combinations of suburb and postcode), MNPD (for municipality, when applicable), SBBMNPD (for combinations of suburb and municipality) when applicable, and PMSD (for combinations of postcode, municipality, street and street number).

- The parser discontinues parsing at the first found syntax error.

• An "*" (wildcard character) after a strnum requests a search of all street numbers beginning with strnum and on the same side of the street. Eg 10* smith street would search for 10 smith street, 12 smith street, 14 smith street etc and 23* smith street would search for 23 smith street, 25 smith street, 27 smith street etc.

Lot/Plan search

The Lot/Plan Parser handles texts (up to 120 bytes) that conform to the general form:

$$planspec \left[\begin{Bmatrix} ; \\ : \end{Bmatrix} planspec \right] \ldots$$

planspec has the general form:

$$\underbrace{\left[\begin{Bmatrix} \underline{PT} \\ \underline{PART} \end{Bmatrix} \begin{bmatrix} \Delta \\ , \\ . \\ / \end{bmatrix} \\ \begin{Bmatrix} lotspec \begin{bmatrix} \Delta \\ , \\ . \\ / \end{bmatrix} \end{Bmatrix} \ldots \right]}_{plan} [\ \underline{OF}\ ]\ [\ \underline{PLA}N\ ]\ [\ plantype\ ]$$
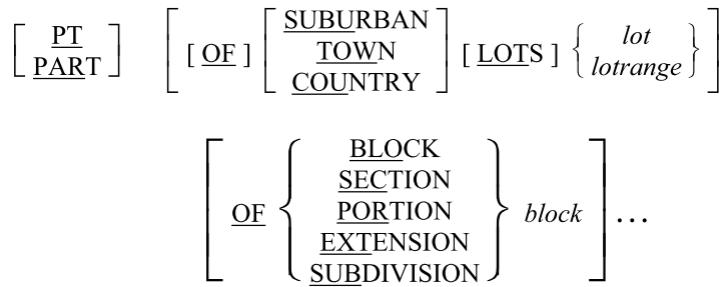
Δindicates a required space (when no other option is selected).

• **plantype** is any of the values: LP, PS, CP, PC, CS, RP, SP, TP and GL.

Spaces may separate plantype from plan, but a plan may not contain embedded spaces.

• **plan** is of the general form planno [suffix] where suffix is a letter. The suffix, when applicable, is either a check character for a unique planno or it qualifies a non- unique planno.

• **lotspec** has the form:

$$\begin{bmatrix} PT \\ PART \end{bmatrix} \quad \begin{bmatrix} [\ OF\ ] \begin{bmatrix} SUBURBAN \\ TOWN \\ COUNTRY \end{bmatrix} [\ LOTS\ ] \begin{Bmatrix} lot \\ lotrange \end{Bmatrix} \end{bmatrix}$$

$$\begin{bmatrix} OF \begin{Bmatrix} BLOCK \\ SECTION \\ PORTION \\ EXTENSION \\ SUBDIVISION \end{Bmatrix} block \end{bmatrix} \dots$$

Any number of additional spaces may appear between tokens in all the above general forms.

- **lot** consists of up to 6 contiguous characters having the general form:

$$\begin{Bmatrix} prefix\ [\ number\ [postfix]\ ] \\ number\ [postfix] \end{Bmatrix}$$

where prefix is a string of contiguous letters, number is a string of contiguous digits, and postfix is a letter optionally followed by digits and/or letters.

Leading zeroes in a number will be dropped; a number comprising only zero/es is invalid. This also applies to a number within a postfix.
For example, lot 3A02 will be taken as 3A2, and 3A0 would be an invalid lot.

- **lotrange** must conform to one of three general forms:

  letter – letter

  [prefix] number – number

  [prefix] number letter – letter.

In the first form, each lot consists of just a prefix letter; no number or postfix may be specified.

In the second form, the same prefix applies implicitly to each and every lot in the range and no postfix may be specified: A3-11 means "A3 through A11" and only the number part varies throughout the range.

In the third form, the same prefix and number apply implicitly to each and every lot in the range and no further postfix characters may be specified: 3B-F means "3B through 3F" and only the single postfix letter varies throughout the range.

The hyphen may be surrounded by one or more spaces. If a lotrange has a preceding 'part' specification, 'part' will be indicated on every lot in the range — as would a preceding SUBURBAN, TOWN or COUNTRY qualifier and any succeeding qualifications conjoined by the key word OF.

- **block** has the same general form as lot, above. However, for a block or section, block may not exceed 4 characters and, for a portion, subdivision or extension, it may not exceed 3 characters.

Other notes:

- Where a prefix-only lot consists of one of the words {ONE, TWO, THREE, FOUR, FIVE, SIX, SEVEN, EIGHT, NINE, TEN} the lot is automatically translated into the respective numbers {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}.

- Where lot has one of the prefixes {ROAD, COMMON,RESERVE} that prefix is automatically translated into the respective prefixes {RD, CM, RES} and, when necessary, the display-form lot field will be truncated to 5 characters.

- The Parser checks every Lot/Plan couplet unpacked and signals those which are not valid combinations according to PLNTYPD (for plan ranges) and PLND (for lot ranges).

- The Parser always expands an abbreviated list or a range of lot numbers into an explicit series in which the applicable plan number is coupled with each successive specification in the abbreviated list or range. A single specification includes a part indicator, a display-form lot, a sequence-form lot, a block, a section, a portion/extension/subdivision/STC field and an indicator to say which of portion or extension or subdivision or STC (or none) is present. Unused fields are spaces.

- The parser discontinues parsing at the first encountered syntax error.

N.B.

- To search on all lots of a plan, do not provide a lot number on input.

- For the lot/plan search transaction, plan numbers that require a check digit can be entered without one, and the numeric part does not need to be padded out to 6 digits. Plan numbers entered with an incorrect check digit are rejected.

Application Search

The Application Parser handles any single text string (up to 120 bytes) that conform to the general form:

AP apn [sfx]

Where:

- apn is the Application number, up to 6 digits

- sfx is the Application suffix letter or check character.

Any number of additional spaces may appear between tokens in the above general form

Crown Description Search

The Crown Grant Parser handles texts (up to 120 bytes) that conform to the general form:

$$\left[\begin{array}{c} \underline{PT} \\ \underline{PAR}T \end{array} \left[\begin{array}{c} \Delta \\ , \\ \underline{OF} \end{array}\right]\right] \left[\begin{array}{c} component \end{array} \left[\begin{array}{c} \Delta \\ , \\ \underline{OF} \end{array}\right]\right] \ldots$$

Δ indicates a required space (when no other option is selected).

- **component** is an applicable reference component of the form

$$\begin{bmatrix} \underline{\text{PORTION}} \\ [\ \underline{\text{SUBURBAN}}\ ]\ \underline{\text{ALLOTMENT}} \\ [\ \underline{\text{SUBURBAN}}\ ]\ \underline{\text{BLOCK}} \\ \underline{\text{SECTION}} \\ \underline{\text{SUBDIVISION}} \end{bmatrix}\ \textit{reference}$$

Any number of additional spaces may appear between tokens in all the above general forms.

- **reference** consists of up to 6 contiguous characters having the general form:

$$\left\{\begin{array}{l} \textit{prefix}\ [\ \textit{number}\ [\textit{postfix}]\ ] \\ \quad\ \textit{number}\ [\textit{postfix}] \end{array}\right\}$$

Where

prefix   is a string of contiguous letters,

number   is a string of contiguous digits, and

postfix   is a letter optionally followed by digits and/or letters.

Leading zeroes in a number will be dropped; a number comprising only zero/es is invalid. This also applies to a number within a postfix: for example, lot 3A02 will be taken as 3A2, and 3A0 would be an invalid *lot*.

However, for a block, reference may not exceed a single character; for a portion, reference may not exceed 4 characters; and for a subdivision, reference may not exceed 3 characters.

Other notes:

- Where a prefix-only lot consists of one of the words {ONE, TWO, THREE, FOUR, FIVE, SIX, SEVEN, EIGHT, NINE, TEN} the allotment is automatically translated into the respective numbers {   1,   2,   3,   4,   5,   6,   7,   8,   9,   10 }.
- A single specification will comprise a part indicator, five display-form component fields, five sequence-form component fields, two indicators to show whether or not a 'SUBURBAN' qualifier applies to a Section or to an Allotment, a Township name and

code, and a Parish name and code. Unused alphanumeric fields will be spaces, and unused numeric fields will be zeroes.

- The parser discontinues parsing at the first encountered syntax error and provides a user-oriented description of the particular problem with an indication as to where the error in the text was encountered.