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# Technical Bulletin #7

This technical bulletin describes an Astoria Search issue and its resolution.

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## Issue

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Depending on your application, you may want to create sophisticated searches of numeric content. For example, you may want to return objects containing a number within the given numeric range of numeric data, such as objects containing years before 1990.

Unfortunately, the Astoria Search user interface does not support searching for numeric ranges in content.

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## Resolution

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To search for numeric ranges in content searches, use the <WILDCARD> operator with bracket characters as the value criteria. The bracket operators specify to search for a single character in the list contained between the two brackets.

Please note that this resolution only applies to content searches constructed with the following syntax:

<u>Object</u>	<u>Property</u>	<u>Operator</u>
Structured Doc	Content	Contains
Document	Content	Contains
Any Document	Content	Contains

You cannot search for numeric ranges on other value criteria, such as attributes.

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## Examples

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To return an object containing a single character in the range of 0 to 9, use the following search syntax:

**<WILDCARD>'[0-9]'**

This line represents numbers that have one digits.

To return an object containing a number less than 300, use the following search syntax with the "OR" criteria box operator:

**<WILDCARD>'[12][0-9][0-9]'**

**OR <WILDCARD>'[1-9][0-9]'**

**OR <WILDCARD>'[0-9]'**

The first line represents numbers that have three digits, but are less than 300. The first bracket set in the first line indicates that a 1 or 2 must be found in the hundreds value (e.g., 100 or 200). The second bracket set in the first line indicates that a 1-9 must be found in the tens value (e.g., 10, 20, 30, etc.). The third bracket set in the first line indicates that a 0-9 must be found in the ones value (e.g., 0, 1, 2, 3, etc.).

The second line represents all numbers that have two digits. The first bracket set in the second line indicates that a 1-9 must be found in the tens value (e.g., 10, 20, 30, etc.). The second bracket set in the second line indicates that a 0-9 must be found in the ones value (e.g., 0, 1, 2, 3, etc.).

The third line represents all numbers that have one digit. The bracket set in the third line indicates that a 0-9 must be found in the ones value (e.g., 0, 1, 2, 3, etc.).

To return an object containing a number between 20 and 50, use the following search syntax with the "OR" criteria box operator:

**<WILDCARD>'[234][0-9]'**

**OR '50'**

The first line represents numbers that have two digits that begin with a 2, 3, 4 and end with a 0-9. The second line represents that a 50 itself can be returned.