<i>Example</i> Project Report	
March 5, 2014	
Table Of Contents	
The Telegram Problem Description	2
Class Diagrams	3
Class Detail	4
Class Blank	4
Class Buffer	4
Association Note!	4
Class Character	5
Class Dictionary	5
Class Digit	6
Association Note!	6
Class Letter Class Atrtrives in to 003	6
Class Line	6
Class Stream	7
Class Telegram	7
Class TelegramStream	
Class Word	8
Class WordCollection	9
Interaction Diagrams	10
Sequence Diagram Print Telegram	10

The Telegram Problem Description

A procedure is required to process a stream of telegrams. This stream is available as a sequence of letters, digits and blanks on some device. There exists a buffer of fixed size, into which portions of the input stream can be loaded on demand, and from which characters can be retrieved sequentially. If this becomes empty during LZZZ". The objeThis is a short description of the is a good ideal. LZZZ". The objeThis is a short to be modeled: copying ideal. LETZZ". The objeThis is a short to be modeled is a good ideal and the execution, it is refilled by transferring the next the buffer. Every telegram in the input stream ion of in sequences of blanks, and the telegram cription of in telegram stream is terminate fort description. copying telegram is a telegram is a short description of ide "ZZZZ". The objet this is a short to be modeled: to proinput stream into the that are separated by Life objet his is a sub-cue objet his is a sub-cue modeled: copying ideal. Anks t coproduce occurrence of an over original natrative is a good occurrence of an over original natrative telegram that prints in 'eleted. All we 1 word "ZZZZ". The mpty telegram. An empty anks followed by the delimiter co produce a "clean" listing of each ... word count and a message indicating the ... A "clean" listing of a telegram is an image of the of 120 characters and where the redundant blanks are deleted. All words in the telegram except STOP and ZZZZ are chargeable, and words of more than twelve characters are considered over length.

The documentation that follows represents the development of an object-oriented model of the above description rendered in UML-2. As with most OO models this version represents an evolving draft that would continue to be refined depending on its eventual purpose: overview, analysis, design, or implementation. The goal of modeling is to reach "a useful model." It is not possible to define a "perfect" or "correct" model. A model is an evolving understanding documented by the modeling stakeholders. The base documentation which is adapted and reformatted here was generated by Together Version 6.2[™], Borland, Inc.

Class Diagrams

UML version of Telegram problem generated using Together 6.2 by Borland, Inc. This is draft of the model in progress on its way to be being "useful." LJW

Class Diagrams

diagram <default>

Interaction Diagrams

diagram Print Telegram diagram Telegram Building

Classes

class Blank

class Buffer

class Character

class Dictionary

class Digit

class Letter

class Line

class Stream

class Telegram

class TelegramStream

class Word

class WordCollection



Class Detail

Class Blank

Character

+--Blank

public class Blank

Extends:

Character

A special kind of character representing "white space" in a line.

Method Summary private Character public isBlank() isBlank() boolean Always returns true. Method Detail Merthibutte, isBlank Merthibutte, public boolean isBlank/ International televisionship public boolean isBlank/ Not list each attribute, Always returns true Merthibutte, Public boolean isBlank/ Not list each attribute, Always returns true Need not list each relationship the boxes Service and relations of the court of this tool does, IsEmpty() This behavior returns false if the court > 0 Isempty() This behavior returns false if the court > 0 Ise if returns true. bot in text is Field Detail count count

private int count

Class Buffer

Field Summarv

private int count

buffer.

resource.

public class Buffer

The is the physical area where characters from the

input stream are held until they are needed for the construction of words. This is a fixed capacity

The number of "unused" characters in the

The number of "unused" characters in the buffer.

InkCharacter

private Character InkCharacter

Method Detail

fill

private void fill()

This behavior successively requests characters from the Stream object until the maximum number of characters have been acquired.

getChar

public Character getChar()

Extracts and returns a single character from the collection.

isEmpty

public boolean isEmpty()

This behavior returns false if the count > 0 else it returns true.

Association Note!

** << this case tool adds a placeholder for the association to object(s) of the class the attribute name references – this is not necessary in OUR models – However, you must document the "purpose" and cardinality of all associations as a separate section in the prose documentation >>

Interaction Diagrams



to Object aLine

Synchronization: call Number:

1.1

Operation:

Line.doesItFit(word)

to Object aLine

Operation:

Line.lineFeed()

Object aTelegram

A telegram prints itself by sending words to the line.

Instantiates: Telegram Message Detail to Object <u>aLine</u> Documentation: Telegram sends words to the line one at a time.

> **Operation:** Line.printWord(Word)

Iteration:

for each word

Object aWord

The word "knows" its length and responds to the line's inquiry.

Instantiates: Word Message Detail to Object <u>aCharacter</u> Documentation: The word instructs each of its characters to print itself.

Operation:

Character.printChar(int) Iteration: for each character